



Western Gateway Strategic Transport Body

Strategic Investment Plan

Strategic Environmental Assessment –
Environmental Report

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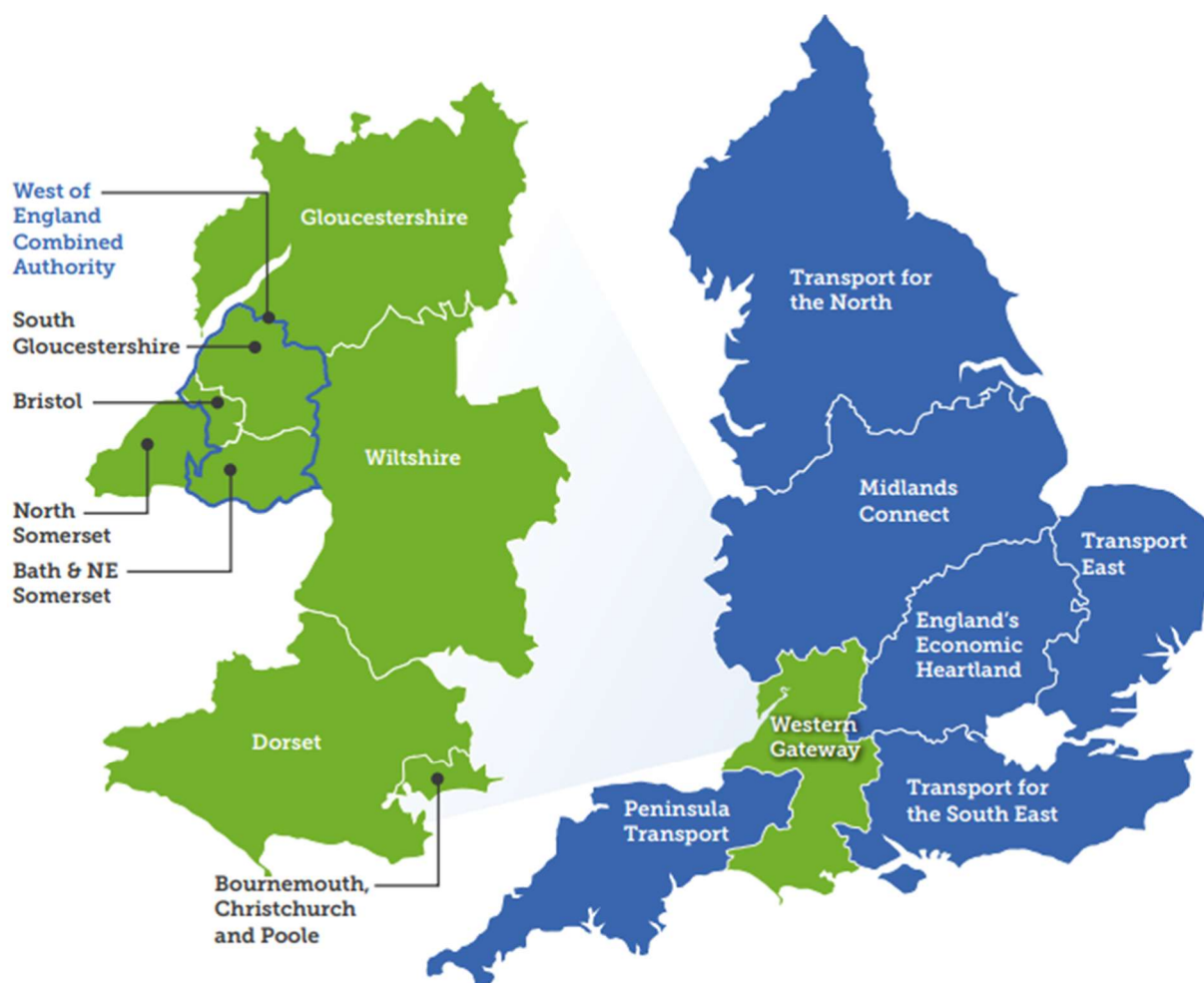
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1 Introduction

1.1 Overview

- 1.1.1. WSP have been commissioned by Western Gateway Sub-national Transport Body (STB) to undertake a Strategic Environmental Assessment (SEA) to support the development of their Strategic Investment Plan (SIP).
- 1.1.2. Western Gateway STB published their Strategic Transport Plan in March 2024, and are now developing the associated 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.
- 1.1.3. The Western Gateway STB is a partnership of eight Local Authorities and one Mayoral 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.
- 1.1.4. 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
 - West of England Mayoral Combined Authority (West of England MCA)
- 1.1.5. The Western Gateway STB Region and its relationship with the other STBs is shown in **Figure 1-1** overleaf.

Figure 1-1 - Western Gateway STB Region¹



1.2 Purpose of this Report

- 1.2.1. Western Gateway STB has commissioned WSP to undertake a Strategic Environmental Assessment (SEA) (process reported in this Environmental Report) to ensure that environmental and sustainability aspects are incorporated into the development of the SIP.
- 1.2.2. The SEA has also been informed by a Health Impact Assessment and an Equalities Impact Assessment.
- 1.2.3. This report sets out the update of the SEA, following public consultation on the draft SIP . The first stage of the SEA process (Stage A), Scoping, was completed in November 2024

¹ Western Gateway (2024) Strategic Transport Plan 2024-2050. Available online at: <https://westerngatewaystb.org.uk/strategy/western-gateway-strategic-transport-plan/>

with the receipt of comments from the SEA statutory consultees. The second stage of the SEA process (Stages B and C), assessment and reporting, were completed in December 2024. Following this, the draft SEA and SIP were consulted on from December 2024 to January 2025 (Stage D).

1.2.4. This Environmental Report includes the following:

- Assessment of the SIP;
- Assessment of reasonable alternatives;
- Assessment of cumulative effects;
Outlining initial mitigation and enhancement measures; and
- Setting out next steps.

2 Western Gateway STB Strategic Investment Plan

2.1 Background

- 2.1.1. The Western Gateway STB is one of the seven sub-national transport bodies in England. The STB provides joint strategic leadership on strategic transport matters, across the nine constituent Local Authorities within the region, as shown in **Figure 1-1**.
- 2.1.2. Western Gateway published their Strategic Transport Plan (STP)² 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.
- 2.1.3. The STP is aligned with plans produced by National Highways and Network Rail. It focuses on strategic issues relevant to the region as a whole, based on the following seven criteria:
- Have significant impact beyond local boundaries
 - Require cross-boundary co-operation and/or delivery
 - Improve access to regionally or nationally significant destinations
 - Improve access to regionally or nationally significant gateways
 - Overcome a severance or connectivity issue that unlocks regional benefits or resilience
 - Facilitate strategic movement between the Midlands and the South Coast
 - Increase efficiency, reliability and/or sustainability of essential goods movement on strategic routes
- 2.1.4. 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.

² 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/>

2.2 Purpose and elements of the Strategic Investment Plan

Vision and Objectives

- 2.2.1. The vision and objectives for the SIP remain the same as those of the STP.
- 2.2.2. The collective vision of Western Gateway STB 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.”
- 2.2.3. 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.
 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.
- 2.2.4. These 12 objectives are drawn from the STP and relate to the delivery of the STP’s five key aims.

Purpose of the SIP

- 2.2.5. 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.
- 2.2.6. The SIP fulfils three important functions:
1. Identifies regional transport proposals that are best able to deliver the aims of the STP.
 2. Enables Western Gateway STB to provide a prioritised list of investment opportunities in the region, in response to policy or funding opportunities from the Department for Transport or other bodies.
 3. Maintains an inventory of regional-level schemes proposed by our partner authorities.
- 2.2.7. The SIP is not intended to present a comprehensive catalogue of all transport schemes in the Western Gateway STB region. The proposals included in the current SIP are only those that are significant to the region as a whole and which can be started by 2035. There are many schemes not included in the SIP because the scope of the scheme is mostly restricted to one Authority area and therefore can be most effectively delivered through their Local Transport Plan – i.e. they are out of scope for a regional strategy.

Overview of SIP Options Proposals

- 2.2.8. 101 proposals were submitted to the STB by the nine Local Authorities in the region, National Highways and Network Rail. They included different proposal types such as public transport, mass transit, transport hubs and interchanges, active travel, road improvements (including capacity and safety improvements), rail stations and services improvements.
- 2.2.9. An initial assessment of the 101 proposals resulted in a long-list of options comprising 62 proposals. Proposals sifted out at this initial assessment stage were so mainly due to:
1. Not being regional in scope and therefore not in scope for the SIP.
 2. Being duplication of proposals submitted by other partners.
 3. Being insufficiently developed to allow analysis.
- 2.2.10. The long-list of options was subject to an assessment process against the 12 objectives listed above and compared to the estimated cost of each proposal via a multi-criteria assessment, with 38 top priority proposals identified as the primary focus of future investment recommendations (i.e. are regional in scale and have been identified as best able to deliver the five aims of the STP at the lowest cost).
- 2.2.11. Section 5 of the SIP provides information on the assessment criteria and methodology whilst Section 6 presents the prioritisation resulting from the multi-criteria assessment.

3 SEA Methodology

3.1 Introduction

- 3.1.1. Strategic Environmental Assessment (SEA) / Sustainability Appraisal (SA) is carried out during the preparation of certain plans and strategies including local transport plans, local plans and spatial development strategies. Its role is to promote sustainable development by assessing the extent to which emerging plans will help to achieve relevant environmental, economic and social objectives.
- 3.1.2. SEA is mandatory for plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste or water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development consent of projects listed in the Town and Country Planning (Environmental Impact Assessment) Regulations³.
- 3.1.3. It is enacted in law through the 'Environmental Assessment of Plans and Programmes Regulations' (SI 2004/1633, known as the SEA Regulations)⁴.
- 3.1.4. SEA is an iterative process of gathering data and evidence, assessment of environmental effects, developing mitigation measures and making recommendations to refine plans or programmes in view of the predicted environmental effects.
- 3.1.5. SEA only considers the environmental effects of a plan whilst SA also considers a plan's wider economic and social effects in addition to its environmental impacts. It is obligatory that SAs meet all of the requirements of the SEA Regulations. The SEA of the SIP also considers the topics covered by the SA process. The approach adopted for the SEA/SA element of the SIP follows that set out in the Practical Guide to SEA⁵ and the Planning Practice Guidance to SEA⁶.
- 3.1.6. Western Gateway STB is not a statutory body, so there is no legal requirement to undertake specific assessments reflecting the requirements of the regulatory framework for transport plans. However, the STB constituent authorities are bound by these regulations, and there is a wish to demonstrate best practice and clear commitments to the over-arching aims of

³ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 [online] Available at: <http://www.legislation.gov.uk/ukxi/2017/571/introduction/made>

⁴ SI 2004 No. 1633, The Environmental Assessment of Plans and Programmes Regulations 2004 [online] Available at: http://www.legislation.gov.uk/ukxi/2004/1633/pdfs/ukxi_20041633_en.pdf

⁵ Office of the Deputy Prime Minister (2005) A Practical Guide to the Strategic Environmental Assessment Directive. available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf

⁶ Department for Communities and Local Government (2015) Strategic environmental assessment and sustainability appraisal. Available at: <http://planningguidance.communities.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/>

accessibility, equity, affordability and safety that are stated in the long term STP for the region.

- 3.1.7. **Appendix A** sets out more information on how this report meets the requirements of the SEA Regulations.

3.2 Key SEA Stages

- 3.2.1. The key stages of the SEA process are as follows:

- **Stage A:** Setting the context and objectives, establishing the baseline and deciding on scope.
- **Stage B:** Developing and refining strategic alternatives and assessing their effects.
- **Stage C:** Preparing the Environmental Report.
- **Stage D:** Consulting on the draft plan or programme and the Environmental Report and prepare a Post Adoption Statement.
- **Stage E:** Monitoring the significant effects of implementing the plan or programme on the environment.

3.3 Stage A – Scoping

- 3.3.1. A Scoping Report, in support of the emerging SIP, was produced by WSP in October 2024, which initiated the SEA process. This report reviewed relevant legislation, plans, and programmes baseline, identified baseline information as well as key issues and opportunities for the SIP and identified an assessment framework. A copy of the Scoping Report is included as **Appendix B**.
- 3.3.2. This report was consulted on with the SEA Statutory Consultees (Environment Agency, Historic England and Natural England) in October 2024 and details on their consultation comments can be found in **Appendix C**.

3.4 Stages B and C - Assessment and Reporting

- 3.4.1. Stage B comprises of the assessment of the draft SIP, against the SEA objectives identified within the Scoping Report.
- 3.4.2. As per the SEA regulations, the assessment process also needs to consider and compare all reasonable alternatives as the plan evolves and assess these against the baseline environmental, economic and social characteristics of the STB region. Reasonable alternatives are the different realistic options considered by the plan-maker in developing the plan.
- 3.4.3. This SEA Interim Report will therefore cover the assessment of:
- Draft SIP
 - Alternative options
 - Intra and inter project cumulative effects.

Assessment of Effects

3.4.4. The assessment of effects has considered the following:

- Whether they are positive, negative, uncertain or negligible.
- Overall effect significance (negative, positive, uncertain, potential for both negative and positive effect or negligible)
- Nature of effect (direct, indirect)
- Spatial Extent (local, regional, national)
- Reversibility of effect:
 - Reversible: The receptor can return to baseline condition without significant intervention
 - Irreversible: The receptor would require significant intervention to return to baseline condition
- Duration (short, medium or long term) – Short term: 0-5 years, Medium term: 5-10 years (up to the end of the plan period) Long term: 10+ years (beyond the plan period).

3.4.5. **Table 3-1** sets out the key to the assessment whilst the detailed Assessment criteria is set out in **Appendix D**.

Table 3-1 – Key to Assessment

Effect Significance	Key
Potential for significant positive effects	++
Potential for significant negative effects	--
Uncertain effects – Uncertain or insufficient information on which to determine the appraisal at this stage	?
Negligible / No effect	0

Assessment of draft SIP Options

3.4.6. An assessment of each of the preferred SIP options (totalling 38 transport schemes) was carried out against the SEA Framework of objectives and using the methodology set out in **Appendix D**. An individual assessment matrix was produced for each scheme and the findings are summarised in **Section 5** and detailed assessments presented in **Appendix E**.

Assessment of Alternatives

3.4.7. For the purpose of the draft SIP, the assessment of alternatives comprised the assessment of the other options (totalling 24 transport schemes) identified as part of the short-list of schemes. An assessment of each of the alternative options was carried out against the SEA

Framework of objectives and using the methodology set out in **Appendix D**. An individual assessment matrix was produced for each scheme and the findings are summarised in **Section 6** and detailed assessments presented in **Appendix E**.

Cumulative Effects

- 3.4.8. The SEA Regulations require that cumulative effects are considered when identifying likely significant effects. Therefore, a number of plans and policies (local, regional and national) have been reviewed for potential cumulative effects (i.e. inter-project cumulative effects) in addition to potential cumulative effects that could occur as a result of the implementation of the draft SIP (i.e. intra-project cumulative effects).
- 3.4.9. The assessment of cumulative effects has been undertaken in **Section 7** of this report.

Mitigation, Enhancement and Monitoring Measures

- 3.4.10. The SEA Regulations require that mitigation measures are considered to prevent, reduce or offset any significant adverse effects on the environment as a result of implementing the plan.
- 3.4.11. Mitigation measures have been identified in relation to the assessment of the draft SIP options. These include both proactive avoidance of adverse effects and actions taken after potential effects have been identified. These are set out in **Section 8** of this report.
- 3.4.12. **Section 8** also includes enhancement measures, which aim to optimise positive impacts and enhance sustainability. The mechanism for delivery of mitigation and enhancement will ensure the prevention, reduction and offset of any significant adverse effects and promotion of enhancement opportunities on the environment.

3.5 Stages D and E: Consultation and Monitoring

- 3.5.1. This document reports the SEA process and constitutes the Environmental Report under the SEA Regulations. In accordance with the regulations, the Environmental Report must be made available at the same time as the draft plan, as an integral part of the consultation process. An SEA Post-Adoption Statement will be prepared following the consultation period summarising how responses to consultation and the SEA have influenced the development of the SIP. This process is also set out in **Section 10** of this report.
- 3.5.2. The SEA Report was consulted on alongside the draft SIP from December 2024 to January 2025. Consultation comments relating to the SEA, EqIA, and HIA have been outlined in **Appendix C**.
- 3.5.3. The SEA Regulations require that monitoring is undertaken on a plan so that the significant effects of implementation can be identified and remedial action imposed, as well as measuring the benefits of enhancement. The purpose of the monitoring is to provide an important measure of the sustainability outcome of the final plan, and to measure the performance of the plan against sustainability objectives and targets. Monitoring is also

used to manage uncertainty, improve knowledge, enhance transparency and accountability, and to manage sustainability information. These are set out in **Section 8** of this report.

3.6 Assumptions and Limitations

- 3.6.1. The SEA has been based on the information available at the time and provided on the draft SIP proposals and the alternative options. The level of detail provided on each proposal is limited and many proposals are at an early stage of development. This means there is a high degree of uncertainty and risk with some proposals.
- 3.6.2. WSP endeavour to predict effects accurately based on the evidence available; however, there are significant uncertainties given the high level nature of the plan and availability of information. Given uncertainties there is inevitably a need to make some assumptions, however, these are explained where necessary within the methodology and assessment text. A proportionate and precautionary approach has been taken in the identification and evaluation of potential significant effects based on the level of information available and the presence of sensitive receptors.
- 3.6.3. The current STP was developed and approved in March 2024, under the previous Conservative government. It is therefore acknowledged that the STP and its associated SIP are likely to require review when the targets and priorities of the new government are published.
- 3.6.4. The assessment of the draft SIP and alternatives has been undertaken as a desk-based exercise using the baseline information from the Scoping Report.
- 3.6.5. In some instances, given reasonable assumptions, it is not possible to predict 'significant effects', but it is possible to comment on the potential positive and negative effects of the draft plan and its alternatives in more general terms.

4 Identifying Sustainability Issues

4.1 Introduction

- 4.1.1. This section sets out the sustainability issues and opportunities for the SIP and the SEA Appraisal Framework, against which the SIP has been assessed.
- 4.1.2. A Scoping Report, in support of the emerging SIP, was produced by WSP in October 2024, which initiated the SEA process (see **Table 3-1**). This report reviewed relevant legislation, plans, and programmes baseline, identified baseline information, including the future baseline without implementation of the SIP, as well as key issues and opportunities for the Local Plan and identified an assessment framework. A copy of the Scoping Report is provided as **Appendix B**.
- 4.1.3. This report was consulted on with the Statutory Consultees (Environment Agency, Historic England and Natural England) in October 2024 and details on their consultation comments can be found in **Appendix C**.

4.2 Review of Plans Policies and Programmes

- 4.2.1. A plan may be influenced in various ways by other plans, policies or programmes, or by external environmental protection objectives such as those laid down in policies or legislation. These relationships enable the Responsible Authority to take advantage of potential synergies and to deal with any inconsistencies and constraints.
- 4.2.2. The Scoping Report undertook an initial review of policies, plans, programmes, strategies and initiatives that may have an impact on the preparation of relevant policies being reviewed as part of the SIP. This review has informed both the development of the SIP and the SEA framework.
- 4.2.3. Full details on the review of plans, policies and programmes is set out in Appendix A of the Scoping Report included as **Appendix B**.

4.3 Sustainability Issues and Opportunities

- 4.3.1. The Scoping Report set out a number of issues and opportunities for the SIP, for each of the SEA topics outlined in the Scoping Report. These have been summarised in **Table 4-1** below.

Table 4-1 - Sustainability Issues and Opportunities

Topic	Summary of Sustainability Issues and Opportunities
Population and Human Health	<p>Issues</p> <ul style="list-style-type: none"> ■ The population of the STB Local Authorities is predicted to increase both in number and age profile. ■ Substantial quantities of new housing must be delivered in the region across the coming years to meet this increasing requirement and deliver on the Government's housing requirement. In many cases, this must be delivered in Authorities with large rural areas. ■ Transport issues affect different groups to varying extents, with barriers to accessing and using transport exacerbated by age, ethnicity, income and gender. ■ An increased population will see an increase in demand on services, particularly transport and mobility, with the future implementation of transport policies required to consider how to better respond to the mobility needs of a more diverse, growing and ageing population. ■ Low population density and longer distances in rural areas means that providing cost-effective, regular and convenient public transport is already challenging. Around a quarter of residents of Western Gateway live in such areas. ■ Lack of phone/internet connectivity in certain areas prevents the use of digital services and increases the need to travel. ■ Social isolation and loneliness, mental health, obesity, preventable disease, ageing population and disparities between health are challenges affecting communities across the Western Gateway STB region. ■ Transport availability, particularly public transport, affects wellbeing because it facilitates social connectedness. ■ Demographic change will require a rethinking of current transport strategies, with new challenges set to arise such as an increasing number of older drivers on the road and more people with dementia using public transport. ■ With increasing prevalence of mental health conditions, transport systems often come with challenges that exacerbate feelings of anxiety, overwhelm, fear and loneliness. ■ Sexual assault and violence are the crimes most likely to occur on public transport. ■ There are areas across the region which have high levels of crime deprivation, particularly in Bristol. ■ Vulnerable road users such as cyclists, pedestrians, and horse riders are more likely to be traffic accident casualties. ■ As the population within the Western Gateway STB region increases there are expected to be a greater number of vehicles on the region's roads, which may result in an increase in the number of accidents and those KSI on roads. <p>Opportunities</p> <ul style="list-style-type: none"> ■ The SIP present opportunities to deliver a more affordable and accessible transport network that helps addressing deprivation and promotes social inclusion. This is a key aim of the Strategic Transport Plan. ■ New technologies and business models are presenting new transport and travel options. These have the potential to improve the competitiveness of public transport journeys relative to the private car by providing a more seamless travel experience ■ The SIP should seek to maximise opportunities for improving transport connectivity and resilience in rural areas. ■ There are opportunities to improve access through transport services, digital services and by bringing services to people. ■ Mode of transport affects physical and mental health, via mechanisms including physical activity and commuting time and improved quality of life. ■ Infrastructure should be adapted for groups such as disabled and pregnant women, accessible and addresses anxiety, mental health safety and security related concerns. ■ Public transport services should include adequate lighting and communication systems (including on board and at stops/stations) and suitable monitoring and maintenance systems. ■ There are opportunities for the SIP to contribute towards local authorities within the Western Gateway meeting the NPPF requirement for housing development.
Economy	<p>Issues</p> <ul style="list-style-type: none"> ■ The Western Gateway STB region is prosperous, with the West of England particularly recognised as the biggest net contributor to the public purse outside of London. ■ Although the STB contains important centres of economic activity, spatial distribution of economic activity is unequally distributed, being concentrated in economic centres of Bristol and Bath, and major towns in North Somerset. GDP is much higher in Bristol and South Gloucestershire than it is along the south coast. ■ Western Gateway has several areas and communities that experience poor transport connectivity, especially with respect to corridor connectivity, largely located in rural areas of the STB region. ■ Health inequalities and barriers to work persist in clusters around the region, with poor transport connectivity aligning to create "double deprivation" in some areas. ■ Increasing skills gap and recruitment and retention challenges, including in science, technology, engineering and mathematics (STEM), digital, health and social care and construction ■ Changing work patterns such as remote, internet-based jobs and working from home are likely to reduce the growth of transport demand ■ The change in working habits has also affected traditional 5/2 day shift patterns with an increase in nighttime working. ■ Rural communities face ongoing reduction in passenger transport services

	<ul style="list-style-type: none"> Physical connectivity remains poor for many rural areas, with a lack of infrastructure and poor affordability risking creating exclusion. Behaviour changes, funding and service cuts, increased costs and driver shortages are impacting viability of bus services. If employment remains more concentrated in urban centres, this could put increased pressure on transport systems as commuting distances increase. Dorset has a lower working age population than the average and there are high levels of economic inactivity. <p>Opportunities</p> <ul style="list-style-type: none"> The SIP presents opportunities to attract investment and grow the region's economy to support regeneration and growth. Strategic and coordinated action to remove transport-related barriers to employment and education via improved access to economic centres and addressing known areas of deprivation and existing connectivity gaps. Increase connectivity, particularly North – South, will lead to greater productivity from the existing workforce due to much improved journey times and help to balance out the North-South differential in GDP. The SIP could help to enhance connectivity to the international gateways, such as major ports and airports in the area and improved connectivity to global gateways.
Biodiversity	<p>Issues</p> <ul style="list-style-type: none"> There are a number of statutory local, national and international sites designated for nature conservation in the region which may be affected by increased population, transport infrastructure development, and climate change. The trend in biodiversity decline across the UK shows habitats, and wildlife corridors outside of these protected areas are especially at risk of being lost, damaged or fragmented by transport development. Secondary impacts of transport networks, such as noise disturbance, air pollution and lighting can have detrimental impacts on biodiversity and species movements. Though not the key cause, transport networks have contributed to the decline in natural capital, habitat fragmentation, and species decline. New transport routes will need to be carefully planned so that they do not cause adverse effects on ecosystems with high (potential) ecosystem services provision. <p>Opportunities</p> <ul style="list-style-type: none"> UK Government objectives of halting biodiversity loss by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042 and to protect 30% of our land and sea also by 2030. The Local Authorities within the Western Gateway STB are developing, or have developed, Local Nature Recovery Strategies. This provides opportunities for the SIP to work together with these strategies to protect and enhance biodiversity The SIP presents opportunities to be strategic in the enhancement of biodiversity through recommending the use of green infrastructure (GI) in development arising from the SIP. These can be combined with priorities for wider ecosystems services benefits to deliver landscape wide improvements. The SIP presents an opportunity to support schemes that promote and implement biodiversity net gain. Given that ecosystem services are the benefits that nature provides to people, areas of high (potential) provision are often the green and blue spaces close to centres of population, as well as connecting habitats that link these with more remote designated habitats and landscapes. There are opportunities for the SIP to enhance connectivity between these spaces, improving ecosystem services. Biodiversity and natural capital enhancements can be better planned and delivered when considered at programme level for further development at plan and project level
Landscape and Townscape	<p>Issues</p> <ul style="list-style-type: none"> Transport infrastructure has the potential to cause direct and indirect impacts on designated landscapes and seascapes, eroding the character and quality of the landscapes and seascapes, increasing pollution and eroding the visual amenity for residents and visitors alike. Increased development, including transport interventions, poses a serious risk to tranquillity and light pollution through increased population, traffic and visitors. As such, there is a need to protect the special quality of landscapes and seascapes. Future growth in some locations could risk compromising landscape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and improved socioeconomic outcomes. Climate change will also put pressure on the landscape and seascape designations as new pests and diseases emerge, sea levels rise and extreme weather increasing the stresses on nature conservation. Future growth in some locations could risk compromising landscape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and physical and mental health of its people. There is a need to reduce/ limit increases in light pollution and protect Dorset's dark skies. <p>Opportunities</p> <ul style="list-style-type: none"> The design of transport infrastructure requires a landscape-led approach to design, to ensure the best placement and integration of the proposed development into the existing landscape, especially in sensitive locations. Landscape-led designs can help contribute to the climate change agenda, health and wellbeing, and tackling pollution in all its forms (such as air, light and noise).

	<ul style="list-style-type: none"> Support of decarbonisation and reduction in the number of cars on the road network, will also help to reduce road traffic noise and air pollution emissions, increasing levels of tranquillity. A clean and well connected transport system can improve access to green spaces hence providing additional benefits in terms of health, well-being and social cohesion.
Historic Environment	<p>Issues</p> <ul style="list-style-type: none"> The Western Gateway STB region is home to numerous important sites of historic and archaeological interest, including the Jurassic Coast, historic villages and Roman remains in the Cotswolds, white horses in Wiltshire and the World Heritage City of Bath. New and/or upgraded transport infrastructure across the area has the potential to affect the survival, fabric, condition and setting of cultural heritage assets (both above and below ground) through increased noise and visual effects, increased congestion, intensification of existing traffic or the construction of new road or rail, in addition to increased pressure from population growth. Highly significant archaeological remains, whether designated or not, normally require preservation in situ. This clearly has implications and can represent a significant constraint to future scheme design, which should respect, retain and protect the remains (e.g. through avoidance and redesign). Vehicle damage and pollution can adversely affect both listed buildings and scheduled monuments, so reducing vehicle movements within historic urban areas is also an important area to address. There are still significant gaps in our understanding of the historic environment. The use of early assessment and, where necessary, field evaluation, can minimise the risk of encountering unexpected remains during construction. This information can also inform the design of transport schemes and any strategies to mitigate impact on the historic environment. <p>Opportunities</p> <ul style="list-style-type: none"> There are opportunities for enhancing the setting of heritage assets through the development of schemes that reduce traffic noise, limit traffic movements within historic urban areas, and enhance accessibility through active modes. There are opportunities to improve the connections to heritage assets and encourage visitors, improving knowledge and enjoyment of the historic environment. There are opportunities for good design that is sensitive to the historic environment and seeks to enhance the sense of place, character and experience of the historic environment. Keeping development within the existing highway boundaries and reprovisioning existing highways for development, may help to reduce the impact heritage assets. Decarbonisation presents opportunities to reduce the number of vehicles on local roads, reducing the degradation of heritage assets. Reducing the number of heavy vehicles passing close to heritage assets can reduce their degradation. Improved access to heritage assets by a clean well connected transport system can foster healthy lifestyles, community cohesion, provide a “sense of place” and drive economic vitality.
Water Environment	<p>Issues</p> <ul style="list-style-type: none"> The Western Gateway STB region has a number of important coastal and inland waterways, including the Rivers Severn, Avon and Frome, and coastal ports and basins in Dorset and Bournemouth, Christchurch and Poole. Road-related pollution, including light, noise, vibration, de-icing salt, dust, particles from wear and tear of tyres and pavements, metals, herbicides, and exhaust emissions (e.g. NOx, CO and particulates) can affect the water environment. Other effects include habitat fragmentation and vehicle-wildlife collisions⁷. The physical and chemical quality of water resources is an important aspect of the natural environment and can be adversely affected by pollution associated with surface water runoff from new or existing transport infrastructure, as well as by changes to waterbodies which can affect their quality as a habitat Of the 603 water bodies, just 12% are achieving ‘good’ ecological status, falling far short of the WFD target of achieving ‘good’ for all water bodies. Meeting water supply demand over the next 25 years will be challenging in the South West. Deficits may develop across England by the 2050s due to climate change alone; these would be exacerbated by population growth and increasing demand and consumption of resources. Increased development (including transport infrastructure) can increase flood risk on a local and catchment scale. <p>Opportunities</p> <ul style="list-style-type: none"> Upgrading existing infrastructure provides the opportunity to improve pollution control, including the reduction of litter and microplastics through mitigation measures. For example, Sustainable Urban Drainage Systems (SuDS), and other nature-based solutions or grey infrastructure to help deliver water quality improvements alongside other co-benefits like attenuating water and flood control.

⁷ Phillips et. al. (2021). Spatial Extent of Road Pollution: A National Analysis. Available online at <https://www.sciencedirect.com/science/article/pii/S0048969721006574>:

	<ul style="list-style-type: none"> ■ New transport infrastructure could result in improved drainage, reducing discharge from roads and surface water flooding ■ The SIP could seek to include schemes that incorporate or retrofit sustainable urban drainage systems (SuDS) and GI requirements within new developments in order to mitigate road-related pollutant run-off, adapt to climate change and counteract flood risk. GI can also reduce surface water runoff and have water quality co-benefits
Air Quality	<p>Issues</p> <ul style="list-style-type: none"> ■ 24 areas in the Western Gateway STB region are currently designated as Air Quality Management Areas, these are primarily located in the more urban areas of the STB region. There are also Clean Air Zones in the centre of Bath and Bristol. ■ Poor air quality is one of the greatest environmental risks to human health. ■ Reducing air pollution can result in reductions in stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma ■ Replacing fossil fuel derived electricity with decarbonised electricity will lead to substantial reductions in emissions of NO_x and sulphur dioxide (SO₂) and hence in PM_{2.5} and O₃. ■ The UK Government's plan to end the sale of all new conventional petrol and diesel cars and vans by 2035 and support for work and home-based electric charging facilities, will promote use of hybrid and electric vehicles, with positive effects for air quality. ■ However, emissions of non-exhaust particles from friction and abrasion such as from tyre, brake and road surface wear, and the resuspension of road dust, will continue to be a significant source of particulate matter (PM₁₀ and PM_{2.5}) emissions, even from a fully electric vehicle fleet. These emissions could increase if average vehicle mass and numbers were to increase, as it may with larger batteries. ■ The number of vehicles on the roads is likely to increase as the population rises, putting air quality and AQMAs at further risk of degradation. ■ Climate change itself is expected to affect air quality in the UK by influencing emissions, atmospheric processing and transport of many pollutants - some of these effects are likely to slow or temporarily reverse improvements in air quality. ■ More severe and frequent heat episodes as a result of climate change can contribute to the worsening of air quality. <p>Opportunities</p> <ul style="list-style-type: none"> ■ The SIP should support active travel measures that encourage a shift away from car use to walking, cycling and public transport provide both decarbonisation and improvements in air quality, as well as health benefits that extend beyond improving air quality. ■ There are opportunities for the SIP to prioritise schemes that will encourage private car users to switch to electric vehicles, by ensuring charging infrastructure is sufficient to meet demand. ■ The SIP can contribute to the creation of healthy places, streets and communities that promote active transport, improve air quality, and improve road safety. ■ Providing more reliable and efficient journeys will help to minimise the negative impact of congestion and support sustainable growth by enabling efficient movement of people and goods, reducing carbon emissions and engine idling.
Climatic Factors	<p>Issues</p> <ul style="list-style-type: none"> ■ Flooding (tidal and surface water) is a key risk for the region and both property and infrastructure (road and rail). ■ Flooding is set to be exacerbated by climate change and sea-level rise, presenting further risks to properties and infrastructure with increased maintenance required. ■ Transport is the largest contributor to greenhouse gas emissions in the UK at 33% of total emissions and in the Western Gateway STB region with the largest contributor being domestic transport at 38.5%. ■ Most Western Gateway Local and Combined Authority partners have passed resolutions declaring a 'climate emergency'. The differing characteristics of the local authority areas within the region means that the current levels of carbon emissions, their available carbon budgets and trajectories to net zero carbon emissions will differ, and some authorities have the ability and the ambition to move forward at a faster pace⁸. ■ There is a high reliance on private transport and high levels of car ownership in rural areas, where around 87% of journeys are made by car⁹. ■ Higher per capita emissions in more rural authorities where private car ownership and use is high and necessary due to fragmented transport systems ■ The region can expect to see increased climate hazards including heatwaves, droughts and more frequent adverse weather events including intense rainfall events and flooding, regardless of how successful global policies are in achieving net zero. ■ Climate change has the potential to disrupt operations and damage the transport network, through hazards such as flooding, subsidence, high and low temperatures, and other extreme weather event.

⁸ Western Gateway Sub-national Transport Body. Strategic Transport Plan 2020-2025.

⁹ Western Gateway Sub-national Transport Body (2022) South West Rural Mobility Strategy. Available at: <https://westerngatewaystb.org.uk/wp-content/uploads/2024/07/WG-PT-Rural-Mobility-Strategy-Final-Draft-Strategy-v3.pdf>

	<ul style="list-style-type: none"> There will be an increasing need to implement climate change mitigation and adaptation measures considering changing environmental conditions, including low-carbon and resilient transport infrastructure. New infrastructure schemes need to take account of both embodied and operational emissions at an early strategic stage in decision making. <p>Opportunities</p> <ul style="list-style-type: none"> The Western Gateway STB is committed to delivering decarbonisation. The Western Gateway’s strategic environmental priority in relation to the climate emergency and relating to decarbonisation set out in this transport plan is to reduce carbon emissions to net zero by 2050 at the latest. The SIP presents opportunities to help deliver an increasingly reliable transport network that efficiently manages transport demand and is resilient to climate change. Increasing the resilience of transport infrastructure not only protects the infrastructure itself, but it also improves wellbeing and protects vulnerable groups from being excessively affected by climate impacts.
Material Assets	<p>Issues</p> <ul style="list-style-type: none"> Flooding (tidal and surface water) is a key risk for the region, which is set to be exacerbated by climate change and sea-level rise, presenting risks to properties and infrastructure with increased maintenance required. It is important that any future development of the transport network does not have adverse impacts or lead to the degradation or sterilisation of the best and most versatile agricultural land, as this is important for the UK’s self-sufficiency in food production. There is potential for soil loss as a result of developments, as well as the degradation of soil quality. Minerals are a finite resource, and materials will be required for any new transport infrastructure, with subsequent waste produced. There is a continued increase in renewable energy supplies across the region, of which needs to be managed efficiently to ensure the capacity requirements of this transition are met. <p>Opportunities</p> <ul style="list-style-type: none"> The SIP should aim to increase adaptation and resilience measures (including both engineering solutions and new smarter technologies), which are likely to be needed to keep the surface transport system running efficiently. The SIP should support the delivery of a transport network with greater use of public transport, powered by decarbonised energy sources. The SIP should encourage the implementation of circular economy principles in developments to reduce waste.

4.4 SEA Framework

- 4.4.1. An SEA Framework has been produced to guide the assessment process of the SIP. The framework (set out in **Table 4-2** overleaf) summarises the main sustainability issues in the Western Gateway STB region across each environmental topic, and the subsequent sustainability objectives and appraisal questions to be used to assess the SIP and reasonable alternatives.

Table 4-2 - Sustainability Appraisal Framework

SEA Topic	Proposed Objective	Supporting Appraisal Questions – Will the Western Gateway STB SIP...
Population and Human Health	<p>SEA1: To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.</p> <p>SEA2: To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.</p> <p>SEA3: To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.</p>	<ul style="list-style-type: none"> Reduce deprivation and inequality across the Western Gateway STB region? Support the provision of everyday services more locally so that people do not have to travel as far - provision physical (fixed), mobile (non-fixed) and digital provision of services? Improve equality of opportunity amongst all social groups? Ensure that infrastructure / interventions are conscious of the needs of future population and population growth, including disadvantaged groups and minority communities? Consider the specific challenges of the region's rural communities? Encourage healthy lifestyles and reduce health inequalities? Promote access to health, social, recreational and leisure facilities for all sectors of the community? Provide and enhance community access to high quality open/green space and nature? Increase opportunity for active travel? Ensure that transport users feel safe, particularly after dark? Improve road safety and reduce the number of people KSI on the roads, particularly children from deprived background? Improve access for people with disabilities and protected characteristics? Provide opportunities for housing growth within the STB region?
Economy	<p>SEA4: To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.</p> <p>SEA5: To support rural economies, attracting visitors and providing opportunities for prosperity.</p> <p>SEA6: To provide infrastructure that supports future sustainable housing growth</p>	<ul style="list-style-type: none"> Support the nationally important role of the Western Gateway STB economy? Support access to jobs, training and educational opportunities, particularly in rural areas? Improve reliable access to employment centres? Enhance the vitality and resilience of the town centred and retail centres? Improve reliability, accessibility and affordable of transport to access quality work? Ensure that infrastructure and opportunities for work and education keep pace with population growth? Promote good design that enhances the natural and built environment hence fostering healthy lifestyles, community cohesion and economic vitality? Support the movement of essential goods on suitable routes? Support the expected revised housing forecasts/new housing growth?
Biodiversity	<p>SEA7: To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.</p>	<ul style="list-style-type: none"> Contribute towards the target of halting the decline in species abundance by 2030? Contribute to the UK commitment to protect 30% of land and sea for nature by 2030 (30by30)? Avoid impacts on designated and important biodiversity and provide net gains where possible, incorporating the mitigation hierarchy? Protect the integrity of designated sites including enhancement for SSSIs, Local Wildlife Sites and National Nature Reserves? Restore and enhance biodiversity in the region? Encourage opportunities to achieve at least 10% biodiversity net gain on interventions? Prevent habitat fragmentation and promote ecological networks, not prejudicing future improvements to habitat connectivity?
Landscape and Townscape	<p>SEA8: To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.</p>	<ul style="list-style-type: none"> Ensure that the Western Gateway's most valuable landscapes, townscapes and seascapes are conserved and enhanced? Improve the quality and condition of the townscape and landscape? Incorporate green infrastructure, natural landscape principles, and/or nature based solutions into design? Improve access to green spaces hence providing additional benefits in terms of health, well-being and social cohesion. Incorporate National Highways "The Road to Good Design" principles?

SEA Topic	Proposed Objective	Supporting Appraisal Questions – Will the Western Gateway STB SIP...
Historic Environment	<p>SEA9: To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.</p> <p>SEA10: To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.</p>	<ul style="list-style-type: none"> Conserve and enhance the significance of buildings and structures of architectural or historic interest, both designated and non-designated? Improve the quality and condition of the historic environment? Respect, maintain and strengthen local character and distinctiveness? Enhance the setting of heritage assets through the development of schemes that reduce traffic noise, limit traffic movements within historic urban areas?
Water Environment	<p>SEA11: To conserve, protect and enhance the water environment, water quality and water resources.</p>	<ul style="list-style-type: none"> Avoid the potential contamination of waterbodies and watercourses? Support the protection and enhancement, including ecological and chemical status, of water bodies? Support green infrastructure development or retrofit SuDS, and other nature-based solutions or grey infrastructure to help deliver water quality improvements alongside other co-benefits like attenuating water and flood control?
Air Quality	<p>SEA12: To protect and enhance air quality by reducing emissions from the transport network.</p>	<ul style="list-style-type: none"> Reduce the need to travel? Encourage journeys to be made by sustainable means? Avoid any adverse effects on air quality and for people exposed to poor air quality? Improve air quality, particularly in areas of concern such as AQMAs and Clean Air Zones? Promote and facilitate the use of remote working, active travel, car-sharing, public transport and EVs Facilitate expansion and upgrades to existing EV infrastructure?
Climatic Factors	<p>SEA13: Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.</p> <p>SEA14: Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions</p>	<ul style="list-style-type: none"> Ensure transport infrastructure development in areas at risk of flooding, consider the likely future effects of climate change? Increase resilience of the transport infrastructure (new and existing) to the effects of climate change including extreme weather, flooding, heat and cold? Support new developments meeting or exceeding sustainable design criteria, including embodied carbon?
Material Assets	<p>SEA15: To reduce the amount of waste produced and promote sustainable use of resources (including land).</p> <p>SEA16: To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.</p>	<ul style="list-style-type: none"> Avoids the loss of potentially high-grade agricultural land? Minimise loss and negative effects upon geodiversity? Encourage the use of previously developed land? Promote a circular economy or waste minimisation at construction, operation and decommissioning phases? Minimise the loss of land valuable for biodiversity, carbon sequestration, water attenuation or similar? Enable long term use of assets to maximise economic value and minimise waste? Support the transition to renewable energy sources and manage capacity and distribution?

5 Assessment of SIP Options

5.1 Introduction

- 5.1.1. This assessment of the SIP Options is summarised below and presented in full in **Appendix E**.
- 5.1.2. The assessment considered 38 options that have been proposed, including public transport, mixed, road, freight, mass transit, and active transport options. A description of each option is provided in **Appendix E**.
- 5.1.3. A matrix approach has been used for the assessment which has used the significance criteria identified in **Table 3-1**. **Table 5-1** overleaf provides an overview on the performance of each SIP option against each SEA objective and **Table 5-2** shows the summary of significant effects based on each SEA objective.

5.2 Summary of Option Assessment Findings

Table 5-1 - Assessment of Options

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
DC-2024-MIX-004: South East Dorset Rural Mobility Pilot	++	++	++	++	++	0	--	--	--	?	?	0	--	++	--	?
GCC-2024-FODCSV-000: Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol	++	0	0	++	0	0	--	--	--	?	?	++	--	++	--	0
NR - 2024 - PTI-016: Improvement of gateline capacity and customer facilities at Bournemouth station	0	0	++	?	0	0	?	?	--	?	0	0	?	0	0	++
NR-2024-PTI-011: Westbury station additional platform	0	0	0	++	0	0	?	?	?	?	0	0	?	0	0	?
DC-2024-MIX-003: Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation	++	++	?	?	0	0	--	--	--	?	?	0	--	++	--	?
NR-2024-PTI-004: Dorset Metro Shuttle (Wareham to Brockenhurst)	0	0	0	?	0	0	--	?	--	?	?	0	--	0	0	0
GCC-2024-CSV-057011: Cheltenham Spa Station and cycle	0	0	0	?	0	0	?	?	--	?	0	0	?	0	0	0

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
access link to Gloucestershire Cycle Spine																
NR-2024-PTI-002: Salisbury Rail Service Enhancements	0	0	0	?	0	0	--	--	--	?	?	?	--	0	0	0
WC-2024-RD-005: A350/A303 Two Mile Down Junction Improvements	0	0	++	0	0	0	?	--	--	?	?	0	?	0	--	++
NR-2024-PTI-003: Heart of Wessex Line Service enhancement	0	0	0	++	0	0	--	?	--	?	0	0	?	0	0	0
GCC-2024-CSV-018: Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)	0	?	0	?	0	0	?	?	--	?	0	++	?	0	--	?
GCC-2024-CSV-056: Gloucester Rail Station	0	0	0	0	0	0	?	?	--	?	0	++	?	0	0	++
NR-2024-PTS-007: Bristol - Oxford direct train service	++	0	0	++	++	0	0	0	0	?	?	++	--	0	0	0
BCP-2024-FRT-001: Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements	0	0	0	++	0	0	--	--	--	0	?	0	--	++	0	++
WEMCA-2024-PTI-007: Accessibility improvements to rail stations in WEMCA	++	0	++	0	0	0	?	0	0	?	?	?	--	0	0	++

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
GCC-2024-TKS-01003: Ashchurch for Tewkesbury Station & active travel corridor	++	?	0	++	++	0	?	?	-	?	0	0	?	++	0	?
NR-2024-PTI-001: Yeovil to Salisbury Service Improvement (Tisbury Loop)	++	0	0	0	0	0	0	0	0	?	?	0	--	0	0	0
DC-2024-MIX-002: A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland	++	++	++	0	0	0	--	--	--	?	?	0	--	++	--	++
WEMCA-2024-PTS-003: Rail service frequency enhancements to existing rail services in WEMCA	0	0	0	0	0	0	0	0	--	?	?	++	--	0	0	0
BCP-2024-PTI-001: All BCP rail stations to be made fully accessible	++	0	0	0	0	0	?	0	--	0	?	0	?	0	0	0
NR-2024-PTI-008: Gloucester station layout improvements	0	0	0	0	0	0	?	?	--	?	0	?	?	0	0	++
BCP-2024-MIX-004: Christchurch Town Centre sustainable access package	++	++	0	0	0	0	--	--	--	?	?	0	--	++	--	?
NR-2024-PTI-012: Bristol Temple Meads Platform 0	0	0	0	0	0	0	?	?	--	?	0	?	--	0	0	?
BCP-2024-MIX-001: A338 to Wessex Fields, Airport and	++	++	0	++	0	0	--	?	--	?	?	0	--	++	--	?

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
Aviation Business Park, sustainable access package scheme																
WEMCA-2024-PTI – 002: Bus corridor package in Bath	0	++	?	0	0	0	--	--	--	?	?	++	--	0	--	?
NR-2024-PTI – 010: Westerleigh rail Junction upgrade	0	0	0	0	0	0	--	?	--	?	?	0	--	0	0	++
WEMCA-2024-PTI-001: Bus corridor package in Bristol	0	++	?	0	0	0	--	?	--	?	?	++	--	0	0	?
WEMCA-2024-PTI-004: Portishead rail line (Metrowest - Phase 1)	++	0	0	0	0	0	--	?	--	?	?	++	--	?	--	?
GCC-2024-CSV-014: Mass Rapid Transit & Strategic Interchange (Gloucester / Cheltenham)	0	0	0	0	0	0	--	--	--	?	?	++	--	0	--	0
WEMCA-2024-AT-001-002-003-004: Walking and Cycling Network - West of England	++	++	?	0	0	0	--	--	--	?	?	++	--	++	--	?
BCP-2024-MIX-002: Bournemouth Travel Interchange	0	++	0	0	0	0	--	?	--	?	?	0	--	0	0	?
NR-2024-PTI-013: Additional passing loops for trains between Yate and Gloucester	0	0	0	?	0	0	--	?	--	?	?	0	--	0	--	++
BCP-2024-AT-001: Regional Cycle Network routes/schemes (BCP)	++	++	0	0	0	0	--	--	--	?	?	0	--	++	0	?

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
WEMCA-2024-PTI-009: Rail decarbonisation - Chippenham to Bristol Temple Meads via Bath Spa	0	0	0	0	0	0	--	--	--	0	?	++	--	++	0	++
WEMCA-2024-PTI-005: Henbury Rail line (Metrowest Phase 2)	0	0	0	0	0	0	--	?	--	?	0	0	--	0	--	?
WEMCA-2024-PTI-011: Four-tracking Bristol Temple Meads - Parson Street	0	0	0	0	0	0	?	?	--	?	0	++	--	0	--	++
NR-2024-PTI-014: Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock	0	0	0	0	0	0	?	?	?	0	0	++	--	++	0	++
WEMCA-2024-PTS – 001: Bus service frequency and rural bus service improvements - WEMCA	++	0	0	0	++	0	--	--	--	?	?	++	--	++	0	0

Table 5-2 – Summary of Significant Effects – Preferred Options

SEA Objective	Number of Significant Effects			Summary of Significant Effects
	++	--	?	
SEA1 (Population and Equalities)	15	0	0	<p>The majority of preferred options are identified as likely to have negligible effects on population and equalities as while they improve connectivity and access, it is not of a scale that is likely to have significant effects across the Western Gateway STB Region. Further to this, they are less likely to address inequalities. Full details of which can be found in Appendix E to this SEA Report.</p> <p>Significant positive effects have been identified for 15 options in relation to population and equalities. This has been identified where options improve connectivity and access for current and future populations across the Western Gateway STB Region rather than a localised, or smaller area. Additionally, this has been identified where the option also improves access for those without access to a private vehicle, and those with a long term health condition or disability. Overall, the SIP will help improve the capacity and connectivity of the transport network which in turn will improve the movement of freight. This could have positive effects on equalities through enhanced movement of delivery vehicles to homes with elderly or disabled occupants.</p>
SEA2 (Human Health)	10	0	2	<p>The majority of preferred options are identified as likely to have negligible effects on human health as they do not include any active travel elements that are likely to significantly improve human health. Full details of which can be found in Appendix E to this SEA Report.</p> <p>Ten options are identified as likely to have significant positive effects on human health. This has been identified particularly for options including significant improvements to active travel that contribute to improving physical activity, as well as improving mental wellbeing and providing improvements to air quality, improving human health.</p> <p>Two options (GCC-2024-CSV-018, GCC-2024-TKS-01003) have resulted un uncertain effects upon human health, where there is potential for improvements to health but this is likely to be determined by individual scheme design.</p>
SEA3 (Community Safety)	5	0	4	<p>The majority of preferred options are identified as likely to have negligible effects on community safety and do not include any elements that are likely to significantly directly improve or reduce current safety levels. Full details of which can be found in Appendix E to this SEA Report.</p> <p>Five options (DC-2024-MIX-004, NR - 2024 - PTI-016, WC-2024-RD-005, WEMCA-2024-PTI-007, and DC-2024-MIX-002) are identified as likely to have significant positive effects on community safety due to directly addressing a current safety issue, for example, improving pedestrian crossing at road junctions.</p> <p>Four options (DC-2024-MIX-003, WEMCA-2024-PTI – 002, WEMCA-2024-PTI-001, and WEMCA-2024-AT-001-002-003-004) have resulted in uncertain effects upon community safety, where there is potential for improvements to safety but this is likely to be determined by individual scheme design.</p>
SEA4 (Economy)	8	0	7	<p>Significant positive effects have been identified for eight options as these provide improved access to regionally or nationally significant destinations and national or international gateways, overcome a severance or connectivity issue that unlocks regional benefits or resilience, facilitate movement along the Midlands – South Coast strategic corridor, and increase efficiency, reliability or sustainability of essential goods movement on strategic routes.</p> <p>Seven options have resulted in uncertain effects on economy as these options contribute in part to improving access, connectivity and essential goods movement, but not at a scale that is likely to be significant.</p>
SEA5 (Rural Economies)	4	0	0	<p>Four of the preferred options are identified as likely to have significant positive effects upon rural economies (DC-2024-MIX-004, NR-2024-PTS-007, GCC-2024-TKS-01003, and WEMCA-2024-PTS – 001). These options are all located within rural</p>

SEA Objective	Number of Significant Effects			Summary of Significant Effects
	++	--	?	
				communities and provide improved access to employment, visitor attractions, and encourage tourism within rural communities. All other options are identified as likely to have negligible effects, full details of which can be found in Appendix E to this SEA Report.
SEA6 (Housing Growth)	0	0	0	No significant effects have been identified for SEA6 (Housing Growth) as a result of the preferred options. All effects have been considered to be negligible. Full details of the assessment can be found in Appendix E to this SEA Report.
SEA7 (Biodiversity)	0	22	13	The majority of preferred options are identified as likely to have significant negative effects upon biodiversity. This is primarily as a result of taking a precautionary approach and in recognition of the presence of sensitive receptors (where an option intersects or is located within 500m of a nationally designated site). It is recognised that distance in itself is not a definitive guide to the likelihood or significance of effects on biodiversity. This will be dependent on potential pathways for impacts to travel along and a variety of information, some of which is not available at this stage, such as the precise design and layout of the option as well as level of mitigation to be provided. It is likely that when further information is available the significance of residual negative effects can be reduced. Potential uncertain effects have been identified for 13 options. These have been identified where despite not being located within 500m of a nationally designated site, there is potential for options to result in construction that may disturb local biodiversity, for example through construction noise or for protected species or priority habitats to be affected..
SEA8 (Landscape and Townscape)	0	14	19	Significant negative effects have been identified for 14 of the preferred options for landscape and townscape. This is primarily as a result of taking a precautionary approach and in recognition of the presence of sensitive receptors (where an option intersects or is located within 500m of a nationally designated landscape). While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary has been taken. Uncertain effects have been identified for the majority of options in relation to landscape and townscape as there is not information at this stage to determine a likely significant effect given the distance of the options from sensitive receptors.
SEA9 (Historic Environment)	0	33	2	The majority of options are identified as likely to have significant negative effects upon the historic environment. This is primarily as a result of taking a precautionary approach and in recognition of the presence of sensitive receptors (where an option intersects or is located within 500m of an internally or nationally designated heritage asset). Two options (NR-2024-PTI-011 and NR-2024-PTI-014) have resulted in uncertain effects upon the historic environment. This has been identified where the option is located more than 500m and within 1km from a designated heritage asset. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary has been taken.
SEA10 (Access to Heritage Assets)	0	0	34	The majority of preferred options are identified as likely to have uncertain effects upon access to the historic environment. This has been identified where options are likely to contribute to improved connectivity and therefore indirectly enhance access to the historic environment and heritage assets across the region. However, there is also the potential to negatively affect access in the short term during construction but this is currently uncertain.
SEA11 (Water Environment)	0	0	26	The majority of preferred options have resulted in uncertain effects upon water environment. Taking a precautionary approach, an uncertain effect has been identified where options intersect or are within 100m of a waterbody that has been

SEA Objective	Number of Significant Effects			Summary of Significant Effects
	++	--	?	
				identified as having bad/ poor ecological quality (surface water body) and/ or poor chemical status (groundwater bodies).. It is likely that significant negative effects can be avoided through careful design and the incorporation of mitigation measures.
SEA12 (Air Quality)	14	0	4	<p>A large proportion of the preferred options are identified as likely to have significant positive effects upon air quality. This has been identified where an option is located within 500m of an AQMA and has potential to help address poor air quality by contributing to reducing traffic or improving accessibility to sustainable transport modes, encouraging a modal shift away from private car use.</p> <p>Four options (NR-2024-PTI-002, WEMCA-2024-PTI-007, NR-2024-PTI-008, NR-2024-PTI-012) have resulted in uncertain effects upon air quality as these options are located within 500m of an AQMA; however, it is currently uncertain if these options will help to reduce traffic or improve accessibility to sustainable modes within the AQMA.</p>
SEA13 (Climate Change)	0	28	10	The majority of preferred options are identified as likely to have significant negative effects upon climate change. Taking a precautionary approach, significant negative effects have been identified where the option is located either fully or partially within Flood Zone 3. Ten of the options have resulted in uncertain effects upon climate change due to their location either fully or partially within Flood Zone 1 or 2. It is recognised that there will be the potential to avoid and reduce the potential for significant effects through the detailed design of options and the incorporation of suitable mitigation measures.
SEA14 (Greenhouse Gases)	13	0	0	<p>A large proportion of preferred options are identified as likely to have significant positive effects upon greenhouse gases. This has been identified where an option has a high likelihood of reducing annual regional transport carbon emissions and delivering the infrastructure/ conditions/ services necessary to prioritise a shift to low carbon modes. This has been identified for active travel and public transport schemes in particular.</p> <p>The majority of preferred options have resulted in negligible effects as these are anticipated to encourage the use of sustainable transport, but will not deliver the same scale of change, full details of which can be found in Appendix E to this SEA Report.</p>
SEA15 (Material Assets)	0	15	0	<p>Fifteen of the preferred options are identified as likely to have significant negative effects upon material assets. Taking a precautionary approach, this has been identified where the option could result in the loss of best and most versatile (BMV) agricultural land (Grade 1, 2 or 3a) or falls within a mineral safeguarded area.</p> <p>The remaining preferred options have resulted in negligible effects as these are not anticipated to result in any loss of BMV land, full details of which can be found in Appendix E to this SEA Report.</p>
SEA16 (Infrastructure)	12	0	15	<p>Twelve of the preferred options are identified as likely to have significant positive effects upon infrastructure as these options provide maintenance or upgrades to existing infrastructure within the Western Gateway STB Region, or they contribute to supporting the transition to renewable energy sources (such as NR-2024-PTI-014).</p> <p>The majority of options have resulted in uncertain effects where the option provides new infrastructure and some upgrading of existing infrastructure; however, it is currently unclear if they will provide climate resilience measures.</p>

6 Assessment of Alternatives

6.1 Introduction

- 6.1.1. The SEA Regulations require an assessment of the plan and its “reasonable alternatives” taking into account the objectives and scope of the plan or programme. The assessment of reasonable alternatives does not need include all possible alternatives, but only those that are realistic.
- 6.1.2. The proposed alternatives include 24 options, which have the potential to come forward in the future and have therefore been assessed in the same level of detail as the proposed options. The summary assessment findings for the alternative options are outlined below (**Table 6-1** and **Table 6-2**) and the detailed assessment provided in **Appendix E**. A description of each alternative option is provided in **Appendix E**.

6.2 Summary of Effects – Alternative Options

- 6.2.1. The assessment of alternative options has resulted in a higher proportion of negligible effects compared to the preferred options and are less likely to sustainably support development. These effects have been identified for SEA1 (population and equalities), SEA2 (human health), SEA3 (community safety) and SEA12 (air quality) in particular.
- 6.2.2. This has largely been attributed to the nature of the preferred schemes in comparison to alternative schemes, with a higher proportion of road schemes included within the alternative options. Due to misalignment between the timetable for the SIP and the Road Investment Strategy as it transitions from Roads Period 2 to Roads Period 3, National Highways has been unable to provide specific information to support the evaluation of their road proposals as part of the SIP preparation. The detail provided for each alternative option is limited, and many of the proposals are still at an early stage of development. As a result, there is a high degree of uncertainty and risk associated with some of these proposals.

Table 6-1 - Assessment of Alternative Options

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
BCP-2024-MIX-003: Poole Town Centre sustainable access package + Poole Travel interchange	++	?	++	++	0	0	--	?	--	?	?	0	?	0	0	?
BCP-2024-MIX-005: A31 Capacity and safety improvements package	++	++	++	++	0	++	--	?	--	?	?	0	--	++	--	++
GCC-2024-CSV-001: M5 J10 (incl. new link road & A4019 widening)	0	0	0	++	0	++	?	?	--	?	?	0	--	?	--	++
GCC-2024-TKS-001: M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor	++	0	0	?	++	++	?	--	--	?	?	0	--	?	--	++
GCC-2024-CSV-013020: M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine	0	?	++	?	++	++	?	?	--	?	0	0	--	?	--	++
NR-2024-PTI-009: Gloucester area re-signalling - enhanced rail renewal	0	0	0	++	0	0	--	?	--	?	?	0	--	0	0	++
A417 Missing Link	0	0	?	++	++	0	?	--	--	?	?	0	?	?	--	?
Potential small scheme: A36 Beckington Roundabouts	0	0	?	0	0	0	?	?	--	?	?	0	?	0	--	0
Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)	0	0	?	?	0	0	--	?	--	?	?	0	--	0	0	0

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
Potential small scheme: A35 Dorchester Roundabouts	0	0	?	0	0	0	--	--	--	?	?	0	?	0	--	0
Strategic Renewal - M32 Eastville viaduct	0	0	0	?	0	0	?	?	--	0	?	?	--	0	0	0
Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct	0	0	0	?	0	0	?	?	--	0	?	0	--	0	0	0
NSC-2024-RD-001: A38 Major Road Network (MRN) scheme package	++	?	?	++	++	0	--	--	--	?	?	0	--	?	--	++
WEMCA-2024-TI-001: Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter	0	0	?	0	0	0	0	?	--	?	0	?	--	0	0	?
WEMCA-2024-PTI-008: Rail electrification - Filton Bank (between Bristol Parkway / Patchway to Bristol Temple Meads)	0	0	0	0	0	0	0	?	--	0	0	++	--	++	0	++
WEMCA-2024-PTS-004: South Wales Metro services between Cardiff and Bristol	++	0	0	++	0	0	--	?	--	?	?	++	--	++	--	?
WC-2024-RD-001: A350 Malmesbury Road Roundabout	0	0	++	++	0	0	?	?	?	?	0	0	?	0	--	++
WC-2024-RD-002: A350 Lackham to Melksham Bypass Improvements	0	0	++	++	0	0	0	?	--	?	0	0	--	?	--	++
WC-2024-RD-003: A350 Hagg Hill to Stoney Gutter	0	0	++	++	0	0	?	?	--	?	0	0	--	?	--	++

Option	SEA1 (Population and Equalities)	SEA2 (Human Health)	SEA3 (Community Safety)	SEA4 (Economy)	SEA5 (Rural Economies)	SEA6 (Housing Growth)	SEA7 (Biodiversity)	SEA8 (Landscape and Townscape)	SEA9 (Historic Environment)	SEA10 (Access to Heritage Assets)	SEA11 (Water Environment)	SEA12 (Air Quality)	SEA13 (Climate Change)	SEA14 (Greenhouse Gases)	SEA15 (Material Assets)	SEA16 (Infrastructure)
WC-2024-RD-004: A350 Westbury Bypass + Glenmore Link	0	0	?	++	0	0	--	?	--	?	?	0	--	?	--	?
WC-2024-RD-006: A36 Southampton Road/ Churchill Way	0	0	++	?	0	0	--	?	--	?	?	?	--	?	0	?
WC-2024-RD-010: Melksham Bypass	++	?	?	?	0	0	?	?	--	?	?	0	--	?	--	?
WC-2024-RD-011: M4 Junction 17 Improvements	0	0	++	++	0	0	--	?	--	?	0	0	--	?	--	?
WC-2024-RD-012: A350 Phase 4&5	0	0	?	++	0	0	?	?	?	?	0	0	--	?	0	?

Table 6-2 – Summary of Significant Effects – Alternative Options

SEA Objective	Number of Significant Effects			Summary of Significant Effects
	++	--	?	
SEA1 (Population and Equalities)	6	0	0	<p>The majority of alternative options are identified as likely to have negligible effects upon population and equalities. Full details of the assessment can be found in Appendix E to this SEA Report.</p> <p>Six alternative options have resulted in significant positive effects upon population and equalities. This has been identified for options that improve connectivity and access for current and future populations across the Western Gateway STB Region. Additionally, this has been identified where the option also improves access for those without access to a private vehicle, and those with a long term health condition or disability.</p>
SEA2 (Human Health)	1	0	4	<p>The majority of alternative options are identified as likely to have negligible effects upon human health. Full details of the assessment can be found in Appendix E to this SEA Report.</p> <p>Significant positive effects may occur for one alternative option (BCP-2024-MIX-005). This has been identified as the option includes improvements to active travel that contribute to improving physical activity, as well as improving mental wellbeing and providing improvements to air quality, improving human health.</p> <p>Uncertain effects may occur for four alternative options (BCP-2024-MIX-003, GCC-2024-CSV-013020, NSC-2024-RD-001, and WC-2024-RD-010). These effects have been identified where there is potential for improvements to health but this is likely to be determined by individual scheme design.</p>
SEA3 (Community Safety)	8	0	9	<p>The majority of alternative options are identified as likely to have negligible effects upon community safety. Full details of the assessment can be found in Appendix E to this SEA Report.</p> <p>Eight of the alternative options have potential significant positive effects upon community safety due to addressing a current significant safety issue, reducing the number of collisions and crime across the transport network.</p> <p>Nine of the alternative options have resulted in potential uncertain effects upon community safety. This has been identified where effects are likely to be determined by individual scheme design.</p>
SEA4 (Economy)	13	0	7	<p>The majority of alternative options have resulted in potential significant positive effects upon economy. This has been identified for options as these provide improved access to regionally or nationally significant destinations and national or international gateways, overcome a severance or connectivity issue that unlocks regional benefits or resilience, facilitate movement along the Midlands – South Coast strategic corridor, and increase efficiency, reliability or sustainability of essential goods movement on strategic routes.</p> <p>Seven options have potential uncertain effects on economy as these options contribute in part to improving access, connectivity and essential goods movement, but do not fully deliver these improvements.</p>
SEA5 (Rural Economies)	4	0	0	<p>The majority of alternative options have potential for negligible effects upon rural economies. Full details of the assessment can be found in Appendix E to this SEA Report.</p> <p>Significant positive effects are identified as likely for four alternative options (GCC-2024-TKS-001, GCC-2024-CSV-013020, A417 Missing Link, and NSC-2024-RD-001) in relation to rural economies. This has been identified where options located within rural communities, and are anticipated to result in improving accessibility to employment opportunities, as well as improving tourism and visitor economies in rural communities.</p>

SEA Objective	Number of Significant Effects			Summary of Significant Effects
	++	--	?	
SEA6 (Housing Growth)	4	0	0	<p>The majority of alternative options have resulted in potential negligible effects upon housing growth. Full details of the assessment can be found in Appendix E to this SEA Report.</p> <p>Significant positive effects are identified as likely four alternative options (BCP-2024-MIX-005, GCC-2024-CSV-001, GCC-2024-TKS-001, and GCC-2024-CSV-013020) in relation to housing growth. This has been identified where options are directly anticipated to contribute to improving infrastructure for housing provision.</p>
SEA7 (Biodiversity)	0	10	11	<p>Ten of the alternative options have resulted potential for significant negative effects upon biodiversity. This is primarily as a result of taking a precautionary approach and in recognition of the presence of sensitive receptors (where an option intersects or is located within 500m of a nationally designated site).</p> <p>Eleven alternative options have resulted in potential uncertain effects upon biodiversity. This has been identified where options are located between 500m and 1km away from a nationally designated site (SAC, SPA, Ramsar, SSSI and National Nature Reserve), or where effects are likely to be determined by individual scheme design.</p>
SEA8 (Landscape and Townscape)	0	4	20	<p>The majority of alternative options have resulted in the potential for uncertain effects upon landscape and townscape as a result of options that are located more than 500m away from a National Park or National Landscape but have potential to effect landscape and townscape setting.</p> <p>Significant negative effects have been identified as likely for four alternative options (GCC-2024-TKS-001, A417 Missing Link, Potential small scheme: A35 Dorchester Roundabouts, NSC-2024-RD-001). This is primarily as a result of taking a precautionary approach and in recognition of the presence of sensitive receptors (where an option intersects or is located within 500m of a nationally designated landscape). While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary has been taken.</p>
SEA9 (Historic Environment)	0	22	2	<p>The majority of alternative options have resulted in potential significant negative effects upon the historic environment. This is primarily as a result of taking a precautionary approach and in recognition of the presence of sensitive receptors (where an option intersects or is located within 500m of an internally or nationally designated heritage asset).</p> <p>Two alternative options (WC-2024-RD-001 and WC-2024-RD-012) have resulted in the potential for uncertain effects upon the historic environment. This has been identified where the option is located more than 500m and within 1km from a designated heritage asset, and there is potential for effects to occur depending on currently unknown scheme design.</p>
SEA10 (Access to Heritage Assets)	0	0	21	<p>The majority of alternative options have resulted in potential uncertain effects upon access to the historic environment. This has been identified where options are likely to contribute to improved connectivity and therefore indirectly enhance access to the historic environment and heritage assets across the region. However, there is also the potential to negatively affect access in the short term during construction, but this is currently uncertain.</p>
SEA11 (Water Environment)	0	0	16	<p>The majority of alternative options have resulted in potential uncertain effects upon water environment. This has been identified where options intersect or are within 100m of a waterbody that has been identified as having bad/ poor ecological quality (surface water body) and/ or poor chemical status (groundwater bodies), and have potential to affect water quality either during construction or operation, but this is likely to be determined by individual scheme design.</p>

SEA Objective	Number of Significant Effects			Summary of Significant Effects
	++	--	?	
SEA12 (Air Quality)	2	0	3	<p>The majority of alternative options have resulted in potential negligible effects upon air quality. Full details of the assessment can be found in Appendix E to this SEA Report.</p> <p>Two of the alternative options (WEMCA-2024-PTI-008 and WEMCA-2024-PTS-004) have resulted in the potential for significant positive effects upon air quality. This has been identified where an option is located within 500m of an AQMA and has potential to help address poor air quality by contributing to reducing traffic or improving accessibility to sustainable transport modes, encouraging a modal shift away from private car use.</p> <p>Three alternative options (Strategic Renewal - M32 Eastville viaduct, WEMCA-2024-TI-001, and WC-2024-RD-006) have resulted in the potential for uncertain effects upon air quality as these options are located within 500m of an AQMA, however it is currently uncertain if these options will help to reduce traffic or improve accessibility to sustainable modes within the AQMA.</p>
SEA13 (Climate Change)	0	19	5	<p>The majority of alternative options have potential to result in significant negative effects upon climate change. These effects have been identified where the option is located either fully or partially within Flood Zone 3 and no drainage measures (such as sustainable drainage systems (SuDS) are currently proposed.</p> <p>Five of the alternative options (BCP-2024-MIX-003, A417 Missing Link, Potential small scheme: A36 Beckington Roundabouts, Potential small scheme: A35 Dorchester Roundabouts, and WC-2024-RD-001) have resulted in the potential for uncertain effects upon climate change due to their location either fully or partially within Flood Zone 1 or 2.</p>
SEA14 (Greenhouse Gases)	3	0	12	<p>Uncertain effects have been identified as potentially likely for the majority of alternative options. This has been identified where an option has a high likelihood to reduce annual regional transport carbon emissions from 6,250kt CO₂e (2019) to net zero by 2050 or deliver the infrastructure/conditions/services necessary to prioritise a shift to low carbon modes.</p> <p>Three alternative options (BCP-2024-MIX-005, WEMCA-2024-PTI-008, WEMCA-2024-PTS-004) have resulted in potential significant positive effects upon greenhouse gases. This has been identified where an option has a high likelihood of reducing annual regional transport carbon emissions from 6,250kt CO₂e (2019) to net zero by 2050 and delivering the infrastructure/conditions/services necessary to prioritise a shift to low carbon modes. This has been identified for active travel and public transport schemes in particular.</p>
SEA15 (Material Assets)	0	15	0	<p>The majority of alternative options have resulted in potential significant negative effects upon material assets. This has been identified where the option could result in the loss of best and most versatile (BMV) agricultural land (Grade 1, 2 or 3a) as a result of land take or falls within a mineral safeguarded area.</p>
SEA16 (Infrastructure)	10	0	9	<p>Ten of the alternative options have resulted in potential significant positive effects upon infrastructure as these options provide maintenance or upgrades to existing infrastructure within the Western Gateway STB Region, or they contribute to supporting the transition to renewable energy sources.</p> <p>Nine alternative options have resulted in potential uncertain effects where the option provides new infrastructure and some upgrading of existing infrastructure, however it is currently unclear if they will provide climate resilience measures.</p>

7 Cumulative Effects

7.1 Introduction

- 7.1.1. The SEA Regulations require that cumulative effects are considered when identifying likely significant effects. Cumulative effects arise, for instance:
- Where several individual policies and sites have a combined effect on an objective; or
 - Where several policies and sites each have insignificant effects but together have a significant effect.
- 7.1.2. The significance of cumulative effects resulting from a range of activities, or multiple incidences of one activity, may vary based on factors such as the nature of the proposed sites and policies and the sensitivity of the receiving communities and environment.
- 7.1.3. This section therefore presents the findings of the following:
- Consideration of how different interventions proposed within the SIP may interact and result in cumulative effects on a receptor (Intra-project effects); and
 - How the SIP could interact with other plans, policies and projects in the surrounding area to have cumulative effects (Inter-project effects).

7.2 Intra-Project Effects

- 7.2.1. The SEA assessment of interventions identified potential intra-project cumulative effects and these are presented in **Table 7-2**. **Table 7-1** below outlines the key to the assessment of cumulative effect.

Table 7-1 – Key to Cumulative Effects

Effect	Key
Significant Positive cumulative effect	++
Significant Negative cumulative effects	--
Uncertain cumulative effects	?
No overall cumulative effects	0

Table 7-2 - Intra-Project Cumulative Effects Summary

SEA Objective	SIP Options	Summary
SEA1 (Population and Equalities)	++	<p>There is potential for positive long term cumulative effects arising from the SIP options. They are likely to provide improved infrastructure for current and future populations within the Western Gateway STB region and beyond, working to increase the capacity of the transport network across the region.</p> <p>Additionally, the SIP options promote inclusive design, particularly through the options such as step-free access to rail stations (WEMCA-2024-PTI-007), all BCP rail stations to be made fully accessible (BCP-2024-PTI-001), improving access to all social groups inclusively. Overall, there is likely to be a significant long term positive cumulative effect. Overall, the SIP will help to improve the capacity and connectivity of the transport network, and this will improve the movement of freight. This could have positive effects on equalities through enhanced movement of delivery vehicles to homes with elderly or disabled occupants.</p>
SEA2 (Human Health)	++/?	<p>There is potential for negative cumulative effects on human health in the short term if multiple options were to be constructed at the same time within the same local area, resulting in increases in disturbance and nuisance and increased stress, negatively effecting human health. The phasing of development and project level mitigation to reduce impacts on air quality and noise are likely to ensure that residual effects are not significant.</p> <p>In the long term the options will include the implementation of new public, active travel, and road transport initiatives, supporting access to community facilities and services, such as health provisions and public leisure facilities. Therefore, this could result in significant positive cumulative effects on health and wellbeing.</p> <p>The development of additional active travel initiatives, including new walking and cycling projects and infrastructure to support active travel also contributes to anticipated positive effects on health and wellbeing through encouraging physical activity.</p>
SEA3 (Community Safety)	++	<p>It is assumed that all options will be built to a high standard of safety, particularly within public transport, mixed, and active transport options. There is also potential for long term significant positive cumulative effects from options providing public realm improvements, particularly if designing out crime principles are applied. Options that implement high quality design and landscaping can also help to generate a sense of pride and ownership within the community, resulting in the potential to reduce crime rates further.</p>
SEA4 (Economy)	++	<p>All options within the SIP will contribute to improving connectivity within the Western Gateway STB region and connecting to neighbouring regions. There are anticipated to be significant long term positive cumulative effects as a result of options improving accessibility to economic opportunities for both residents and investors. Additionally, options are anticipated to significantly improve access to the region's key tourism sites for visitors with a positive effect on the economy.</p>
SEA5 (Rural Economies)	++	<p>There are potential for long term significant positive cumulative effects on rural economies if multiple options, particularly South East Dorset Rural Mobility Pilot (DC-2024-MIX-004) and public transport services to rural areas were to come forward. This would contribute to improving rural connectivity and also improving visitor numbers to rural areas, boosting rural economies.</p>
SEA6 (Housing Growth)	++	<p>Cumulatively, it is considered that all of the options are likely to contribute to the enhancement of the transport network and improve capacity, which will enable future housing growth across the Western Gateway STB region.</p>
SEA7 (Biodiversity)	?	<p>There is the potential for negative cumulative effects on biodiversity if multiple large scale options were to come forward within the same area at the same time, resulting in increased disturbance upon local biodiversity. This is particularly likely if schemes are located within close proximity to designated sites.</p> <p>Depending upon the number and type of options selected and their proposed location, there is potential for a long term cumulative loss of land, which could lead to damaged and fragmented habitat connectivity.</p>

		However, there is the potential for long term positive cumulative effects. Improving the efficiency of the transport network may cumulatively result in reduced disturbance to species and habitats within the Western Gateway STB region. Additionally, there is potential for the development to include green infrastructure that may provide biodiversity enhancements and comply with upcoming Biodiversity Net Gain requirements. Natural capital enhancements are possible through the connection of green spaces and protection of habitats linking population centres which may otherwise be lost or severed through a lack of maintenance or through other development.
SEA8 (Landscape and Townscape)	?	<p>There is the potential for negative cumulative effects on landscapes and townscapes if multiple options were to come forward in close proximity to national parks or national landscapes or areas with high townscape values. During construction of options, there is the potential for disturbance to the setting and tranquillity of these areas, temporarily harming the visual amenity. The phasing of development would help to reduce the potential for short term negative effects during construction. In the longer-term, mitigation should help to reduce noise disturbance from road traffic and enhance the landscape and townscapes of Western Gateway.</p> <p>However, positive cumulative effects may arise due to good design of the proposed options, reductions in traffic congestion and noise through improvements to the network capacity, and improvements to the public realm. In combination, such improvements could enhance the landscape and townscape character over the long term.</p>
SEA9 (Historic Environment)	?	<p>There is the potential for negative cumulative effects on the historic environment if multiple options were to come forward in close proximity to heritage assets or within the setting of a heritage asset. During construction of these new options there is the potential for disturbance to the historic environment due to noise, vibration and temporary reductions in air pollution (dust soiling). During operation, these developments have the potential to negatively impact the setting of heritage assets if not sensitively designed. There is potential for historically sensitive design of options to fit in with the setting of any surrounding designated heritage assets, mitigating any long term negative cumulative effects. Additionally, reductions in traffic may lead to cumulative improvements to noise, improving the setting of heritage assets, as well as improvements to air quality, reducing the degradation of heritage assets. Potential cumulative effects on the historic environment are of particular interest in and around the three UNESCO World Heritage Sites located within the Western Gateway STB region i.e. the Dorset and East Devon Coast (also known as the Jurassic Coast); the City of Bath which also has a second UNESCO World Heritage designation as Great Spa Towns of Europe, and Stonehenge, Avebury and Associated Sites.</p>
SEA10 (Access to Heritage Assets)	++	It is anticipated that all of the options are likely to contribute to improved connectivity and therefore cumulatively enhance access to the historic environment and heritage assets across the region.
SEA11 (Water Environment)	?	There is potential for negative impacts on water quality as a result of increases in surface water runoff and impacts on surface water and groundwater, particularly from physical alteration as a result of development from options. Water quality measures are likely to be specific to each development, but there may be cumulative benefits if implemented across a catchment.
SEA12 (Air Quality)	++	<p>Temporary negative cumulative effects have the potential to arise during the construction phase, if multiple options with overlapping construction periods, were to come forward in the same area. Construction of these options may temporarily reduce the air quality and worsen air pollution from construction plant emissions, dust and construction traffic. However, it is assumed that dust and construction traffic will be mitigated against through implementation of a Construction Environmental Management Plan (CEMP).</p> <p>However, public transport, active travel and mixed proposals provide improved connectivity to sustainable transport modes, which will enable more people to utilise sustainable transport, instead of the use of a private car, improving air quality. Additionally, all of the options will result in improvements to the capacity and efficiency of the transport network, reducing congestion and vehicle idling times, improving air quality. Improvements to pedestrian and cycle connections may further reduce reliance on private cars and encourage low-emission sustainable and active travel, in turn providing health benefits.</p>

SEA13 (Climate Change)	?	<p>The addition of increased use of hard standing surfaces as part of the proposed options will increase surface water runoff. Therefore, a number of new developments could result in potential negative cumulative effects on flooding, particularly if developments are located within flood zone 2 or 3.</p> <p>However, there is potential that developments may include climate resilience measures, including sustainable urban drainage systems (SUDs) which will help to reduce overall flood risk and improve resilience. If climate resilience measures are included within multiple developments, there is potential for positive cumulative effects within a catchment.</p>
SEA14 (Greenhouse Gases)	?	<p>If multiple options were to come forward there is the potential for negative cumulative effects on GHGs, due to embedded carbon associated with the construction required for new developments.</p> <p>In the longer term, there is potential that if multiple developments were to arise, positive cumulative effects on GHGs may arise due to the improvement in infrastructure reducing the number of private vehicles on roads, as well as reducing congestion on the region's roads.</p>
SEA15 (Material Assets)	--	<p>There is potential for cumulative increases in waste produced by demolition, excavation, and construction resulting from options arising from the SIP, including loss of BMV agricultural land resulting from land take. However, there is potential to avoid and reduce significant effects during the detailed design stage of developments that may arise. There is potential for multiple developments to potentially avoid the loss of BMV agricultural land through detailed design where possible.</p>
SEA16 (Infrastructure)	++	<p>It is anticipated that all of the options are likely to contribute to improving the resilience of transport infrastructure within the Western Gateway STB region. The options also include the upgrading of existing infrastructure across the region, contributing to positive cumulative effects.</p>

7.3 Inter-Project Effects

7.3.1. **Table 7-3** below outlines the sources of potential inter-cumulative effects, whilst **Table 7-4** details the cumulative effects identified for each of the SEA Topics in relation to these policies and plans. This uses the same key to effects as set out in **Table 7-1** above.

Table 7-3 - Sources of Inter-Cumulative Effects

Policy or Plan	Plan Details
Western Gateway Local Authorities Local Plans and Local Transport Plans	<p>There are multiple Local Plans and Local Transport Plans within the Western Gateway STB, including:</p> <ul style="list-style-type: none"> ■ Bath and North East Somerset Council, Local Plan (under development); ■ West of England Combined Authority, Bath and North East Somerset, Bristol, North Somerset, and South Gloucestershire Councils, Joint Local Transport Plan 4; ■ Bristol City Council, Local Plan; ■ North Somerset Council, Local Plan 2040; ■ South Gloucestershire, New Local Plan (under development); ■ Cheltenham, Gloucester and Tewkesbury Councils, Strategic Local Plan; ■ Cotswold District Council, Local Plan 2011 to 2031; ■ Forest of Dean District Council, Local Plan; ■ Stroud District Council, Local Plan 2015 to 2031; ■ Gloucester City Plan 2011-2031; ■ Bournemouth, Christchurch and Poole, Local Plan; ■ Dorset Council, Local Plan; ■ Wiltshire Council, Local Plan (under development); ■ Bournemouth, Christchurch and Poole, and Dorset Councils, Joint Local Transport Plan (under development); ■ Gloucestershire County Council, Local Transport Plan (2020-2041); and ■ Wiltshire Council, Local Transport Plan 4 (under development).
Neighbouring STB Strategies	<p>There are four neighbouring Sub-national Transport Bodies to the Western Gateway STB, with neighbouring strategies, including:</p> <ul style="list-style-type: none"> ■ Peninsula Transport Strategy; ■ Transport for the South East Strategy (under development); ■ Transport for the South East, Strategic Investment Plan; ■ England's Economic Heartland Transport Strategy; and ■ Midlands Connect Strategic Transport Plan.
Bristol Airport Expansion	<p>Bristol Airport has begun consultation for expansion plans for the airport, including increasing passenger numbers to 15 million passengers per year by improving facilities and offering more flight options.</p>

Bournemouth Airport Expansion	Bournemouth Airport have applied to BCP Council for the expansion of their terminal and the development of new buildings within their site to accommodate 2 million passengers.
Nationally Significant Infrastructure Projects (NSIPs)	<p>There are 10 Nationally Significant Infrastructure Projects in the South West region that may interact with the SIP, including decided and pre-application developments including:</p> <ul style="list-style-type: none"> ■ A303 Stonehenge ■ A303 Sparkford to Ilchester Dualling ■ A30 Temple to Higher Carblake Improvement ■ Hinkley Point C New Nuclear Power Station ■ Hinkley Point C Connection ■ Hinkley Point C New Nuclear Power Station Material Change 1 ■ A30 Chiverton to Carland Cross Scheme ■ Lime Down Solar Project ■ M5 Junction 10 Improvements Scheme ■ Xlinks Morocco-UK Power Project
East West Rail	<p>East West Rail is a nationally significant railway project which aims to deliver transport connections for communities between Oxford and Cambridge by:</p> <ul style="list-style-type: none"> ■ Upgrading an existing section of railway between Oxford and Bicester ■ Bringing back a section of railway between Bicester and Bletchley ■ Refurbishing existing railway between Bletchley and Bedford ■ Building brand new railway infrastructure between Bedford and Cambridge <p>This development has the potential to affect the SIP as this is occurring within the neighbouring Local Authority of Oxfordshire.</p>

Table 7-4 - Inter-Project Cumulative Effects Summary

SEA Objective	Significance of Effect	Summary
SEA1 (Population and Equalities)	++	There is potential for significant positive long term cumulative effects to occur from the development of new transport schemes (NSIPs, East West Rail, Neighbouring STB Strategies, and Western Gateway Local Authority LTPs) alongside the SIP, which will improve access and connectivity to community facilities and services, including for people who cannot drive or do not have access to a private car. Additionally, there is potential for improved links with employment opportunities as a result of these developments.
SEA2 (Human Health)	++	<p>There is potential for significant positive cumulative effects to arise if multiple transport developments come forward. These developments have potential to improve connectivity, as well as improving the public realm and open spaces as part of these developments resulting in positive effects on the health and wellbeing of the population in the region. Providing improved access to greenspace can provide better mental health and wellbeing outcomes, including reduced levels of depression, anxiety and enhanced quality of life, as well as helping to bind communities together, reduce loneliness, and mitigate the negative effects of air pollution and excessive noise.</p> <p>The development of new sustainable transport links is also likely to result in improvements to air quality, reducing private car emissions, and encourage physical activity along active travel routes, resulting in positive cumulative effects.</p> <p>However, there is potential for short term negative cumulative effects to arise from development if multiple large scale developments were to come forward at the same time, there is potential for increases nuisance and stress to the community of the Western Gateway STB Region.</p>
SEA3 (Community Safety)	++	There is a potential for significant positive cumulative effects resulting from improvements to community safety if multiple schemes come forward that include improved safety measures, for example designing out crime principles and road safety improvements. Additionally, there is potential for improved feelings of safety on sustainable transport modes as a result of new developments. Improvements to the public realm as a result of developments are also likely to contribute to reducing crime and improving community safety.
SEA4 (Economy)	++	<p>There is the potential for long term significant positive effects on the economy if multiple developments were to come forward, such as those connecting or within key employment areas. These developments will improve connectivity between employment centres and residential areas.</p> <p>Greater cumulative connectivity will result through investments in sustainable transport developments such as East West Rail. This will help communities to gain greater access to jobs, services and facilities. Access to activities provides the potentiality for people to participate in education, work, social, leisure, cultural, etc. greater connectivity to the Western Gateway STB Region may also bring about greater tourism opportunities.</p>
SEA5 (Rural Economies)	++	There is potential for long term significant positive cumulative effects on rural economies if multiple developments were to come forward that connect rural areas, improving connectivity to these community. This is anticipated to provide rural communities with improved access to employment and services, as well as providing improved investment in rural areas and the potential for increased tourism, boosting local rural economies.
SEA6 (Housing Growth)	++	There is potential for long term significant positive cumulative effects upon housing growth from the development of improved infrastructure (transport and energy) across the Western Gateway STB Region, supporting increased resident numbers and meeting housing targets for the Local Authorities within the region.

SEA7 (Biodiversity)	?	<p>There is potential for cumulative loss, damage or fragmentation of statutory and non-statutory sites and habitats if multiple developments, across similar timeframes were to come forward. Although it is assumed that protected species would be mitigated at a project level, there are wider impacts on biodiversity.</p> <p>Positive cumulative effects may result through BNG over multiple developments. These are likely to be driven by Local Plans and the requirement for 10% BNG in all developments. Further positive cumulative effects will result from the development of sustainable transport schemes (East West Rail). This will increase access to public transport modes, reducing the use of a private car, and therefore reducing greenhouse gas emissions, journey times and congestion, resulting in increased tranquillity and air quality.</p>
SEA8 (Landscape and Townscape)	?	<p>The provision of public realm improvements through the Local Plans and transport/STB plans could help to increase and improve the open space offering as well as the setting of the Western Gateway STB Region's townscape and landscape through positive design and reduced congestion. This may result in positive cumulative effects.</p> <p>However, multiple developments could result in a cumulative loss of open spaces, and obstructions to local landscapes such as National Landscapes. Additionally, there is potential for loss of tranquillity in these landscapes during construction, if construction were to occur in the same local authority areas during the same time.</p>
SEA9 (Historic Environment)	?	<p>There is the potential for temporary negative cumulative effects on the historic environment if multiple transport schemes and other developments were to come forward. During construction of these developments there is the potential for disturbance to the historic environment due to noise and air pollution.</p> <p>Positive cumulative effects may arise due to the historically sensitive design of the proposed developments to fit in with the setting of any surrounding designated heritage assets and Conservation Areas, including World Heritage Sites. Positive cumulative effects may also result from the development of sustainable transport schemes (East West Rail). This will increase access to public transport modes, reducing the use of a private car, and therefore reducing greenhouse gas emissions, journey times and congestion, resulting in increased tranquillity and setting of the historic environment.</p>
SEA10 (Access to Heritage Assets)	++	<p>There is potential for long term significant positive cumulative effects upon access to the historic environment due to transport schemes resulting in improved access to the historic environment, particularly World Heritage Sites, by the new transport schemes which could present opportunities to generate activity and vitality.</p>
SEA11 (Water Environment)	?	<p>There is potential for cumulative increase in surface water runoff and flood risk, and impacts on surface water and groundwater, particularly from physical alteration as a result of development. Drainage and water quality measures are likely to be specific to each development, but there may be cumulative benefits if implemented region-wide.</p>
SEA12 (Air Quality)	++/?	<p>Temporary negative cumulative effects have the potential to result during the construction phase, if multiple developments were to come forward. Construction of these developments may reduce the air quality through an increase in particulate matter and dust.</p> <p>Long term significant positive cumulative effects will result through the development of sustainable transport schemes (East West Rail). In combination with SIP options, this will increase access to public transport modes, reducing the use of a private car, and therefore reducing greenhouse gas emissions and improving air quality. Further positive cumulative effects will result from the reduction in journey times and congestion on the highway network.</p>
SEA13 (Climate Change)	?	<p>Climate change adaptation measures are likely to be specific to each development, but there may be cumulative benefits if implemented across multiple plans (as set out in Western Gateway Local Authority Local Plans).</p> <p>Temporary negative cumulative effects have the potential to result during the construction phase if multiple developments were to come forward. Construction of these developments may increase levels of greenhouse gas emissions through the embodied carbon associated with the construction and maintenance of the development. Investment in sustainable transport schemes, such as East</p>

		<p>West Rail, will have positive cumulative effects on climate change due to the reduction of private car use and therefore, greenhouse gas emissions.</p> <p>Positive cumulative effects have the potential to result if multiple developments were to come forward, due to the provision of public realm improvements and enhancements to biodiversity as part of the design. Further positive effects may result from low carbon and energy efficient design, which is resilient to the effects of climate change. Climate change adaptation measures are likely to be specific to each development.</p>
SEA14 (Greenhouse Gases)	?	<p>There may be cumulative benefits from transport initiatives (including East West Rail and Western Gateway STB local authority transport plans, as well as neighbouring STB plans) and low carbon developments (as set out in Western Gateway STB local authority local plans) in reducing greenhouse gases, however, increased development is also likely to increase transport related greenhouse gas emissions, particularly where this leads to increases in vehicular traffic as well as embodied carbon due to development.</p>
SEA15 (Material Assets)	?	<p>There is potential for negative cumulative effects on material assets as a number of large-scale projects, such as East West Rail coupled with other development in the Western Gateway STB Region, could lead to a large cumulative loss of land, some of which may not be brownfield land. Additionally, there is potential for negative cumulative effects on waste as a number of large-scale projects could lead to a large cumulative use of resources and production and disposal of waste during construction. However, positive cumulative effects could arise if the majority of the of proposed developments are situated on brownfield sites. There is potential for developments to encourage the sustainable use of resources and encourage re-use and recycling initiatives to minimise waste going to landfill.</p>
SEA16 (Infrastructure)	++	<p>There is potential for long term significant positive cumulative effects if multiple improvements to existing infrastructure were to arise (such as through the Neighbouring STB Strategies), as well as the development of new infrastructure. Additionally, there is potential for cumulative improvements to climate resilience measures, depending on individual developments. The development of new infrastructure is also likely to result in positive cumulative effects upon supporting future population growth.</p>

8 Mitigation, Enhancement and Monitoring

8.1 Mitigation and Enhancement Measures

- 8.1.1. The SEA Regulations require that measures are considered to prevent, reduce or offset any significant adverse effects on the environment of implementing the plan. The measures are known as 'mitigation' measures. Mitigation measures include both proactive avoidance of adverse effects and actions taken after potential effects are identified.
- 8.1.2. The mitigation measures proposed in **Table 8-1** are designed to avoid or reduce the effects identified as potentially negative through the assessment of the SIP options against the SEA Objectives. The table also includes enhancement measures, that aim to optimise positive impacts and enhance sustainability.
- 8.1.3. It is likely that significant negative effects can be avoided or reduced through the detailed design of proposed schemes through adherence to best design guidance. It is important to note that as the proposals are developed further by the organisations responsible for their delivery it is expected that best design and industry practice, and relevant legislative requirements will be considered from the outset.
- 8.1.4. This is important not only in terms of compliance but also as they have cost, programme and risk implications. Key legislative and policy requirements in the context of the SEA, without providing an extensive list, include:
 - Conservation of Habitats and Species Regulations 2017 as amended (known as the Habitats Regulations). Under these regulations, competent authorities must carry out an assessment under the Habitats Regulations, known as a habitats regulations assessment (HRA), to test if a plan or project proposal could significantly harm the designated features of a nationally designated site
 - Environmental Impact Assessment legislative requirements which are enacted in the UK through different legislative instruments depending on the nature of the scheme and consenting mechanism.
 - Water Framework Directive assessment where applicable with its core aim being to protect the UK's water environments by preventing their deterioration and improving their quality.
 - Biodiversity Net Gain legislative and policy requirements as part of the UK Government targets towards halting biodiversity loss and delivering enhancements.

Table 8-1 - Proposed Mitigation and Enhancement Measures

SEA Objective	Mitigation/Enhancement	Mechanism (as applicable)
SEA1: Population and Equalities	Inclusive mobility guidance should be adhered to ensure designs are accessible for everyone.	Project level design and assessment and EqIA as part of subsequent EIA / consenting process
SEA1: Population and Equalities SEA2: Human Health SEA3: Community Safety	Community safety, health and equalities should be considered in design, for example, active travel routes and pedestrian infrastructure, including linking new developments into existing infrastructure, lighting and other safety design considerations, materials used (contrasting colours, non-slip surfaces), accessibility for all including those with reduced mobility or disability, well-being, affordability of schemes, active travel.	Project level Community Safety Assessment, EqIA and HIA as part of subsequent EIA/ consenting process
SEA1: Population and Equalities SEA3: Community Safety	<p>Active travel infrastructure should be accessible and inclusive. Cycleways should provide enough space for adapted cycles such as tricycles, tandems and wheelchair cycles.</p> <p>Consideration should be made for removing other barriers towards active travel for disabled people and low income groups, such as affordability. The council should work with charities and other representative groups to help lower the cost of adapted cycles.</p> <p>It is likely that other forms of sustainable travel will be prevalent in the future, such as electric scooters. Parking and facilities for these schemes should be accessible and not present physical barriers to users.</p> <p>The SIP should also support community engagement with various groups prior the development of transport infrastructure.</p> <p>Improvements to the pedestrian environment should ensure that spaces are inclusive, accessible and safe for disabled users including visually impaired users.</p>	<p>Project level design and assessment and EqIA as part of subsequent EIA/ consenting process</p> <p>Community engagement</p>
SEA1: Population and Equalities SEA2: Human Health SEA3: Community Safety	<p>Where options make provision for public realm improvements, there is a need for these spaces to be well designed and well lit, to ensure that they are safe and feel safe for all users, particularly after dark.</p> <p>Accessibility and safety could be improved in existing spaces by providing lighting, accessible signage, and auxiliary aids to people with reduced mobility.</p> <p>Accessible surfacing should be considered for wheelchair users and people with mobility restrictions.</p> <p>Opportunities for sensory stimulation should be maximised to ensure inclusive enjoyment of spaces.</p>	<p>Project level design and assessment as part of subsequent EIA/ consenting process</p> <p>Community engagement</p>
SEA3: Community Safety	Development should incorporate designing out crime principles, particularly for those potential development sites located in areas with high levels of crime deprivation.	Project level design and assessment as part of subsequent EIA/ consenting process
SEA7: Biodiversity	<p>Consideration needs to be given to the potential effects of construction of developments (noise, vibration and air pollution) on biodiversity.</p> <p>A Lighting Strategy should be prepared to minimise light spill onto retained or newly created habitat features.</p> <p>Consideration should be given to the movement of wild animals during scheme design, with design facilitating wildlife corridors where practicable.</p>	<p>Project level design and assessment (including noise assessments/ surveys)</p> <p>Lighting Strategy</p>

SEA Objective	Mitigation/Enhancement	Mechanism (as applicable)
SEA7: Biodiversity SEA8: Landscape and Townscape SEA9: Historic Environment SEA15: Material Assets	In line with mandatory BNG requirements, transport interventions must implement biodiversity net gain and make use of the natural capital approach to ensure environmental net gain over and above that of decarbonisation. Development should avoid removing any habitats associated with green verges and should consider incorporating small scale green infrastructure. Where practicable, land take from green belt or high value land should be minimised.	Project level design and assessment
SEA7: Biodiversity SEA15: Material Assets	Interventions should aim to minimise soil disturbance and to retain as many ecosystem services as possible through careful soil management during the construction process.	Project level design and assessment
SEA7: Biodiversity SEA8: Landscape and Townscape	Interventions should consider impacts on international, national and local important sites (including sites such as SACs, National Landscapes, National Parks, SSSIs and Ramsar sites). This includes the potential impacts of noise, air and light pollution.	Project level design and assessment
SEA7: Biodiversity SEA8: Landscape and Townscape SEA2: Human Health	The incorporation of natural features such as tree planting, hedgerows and wildflower planting along walk/cycleways to enhance connections to nature and reduced stress levels, contributing to mental health and wellbeing benefits. Infrastructure schemes should incorporate design measures to lessen the impact on biodiversity and ensure biodiversity net gain. Where a transport project is likely to have a significant effect on the natural environment the avoidance-mitigation-compensation hierarchy applies, for example, less damaging alternatives should be sought with regards impacts to high value ecological and landscape receptors.	Project levels biodiversity net gain assessment
SEA8: Landscape and Townscape SEA9: Historic Environment	New developments should seek to maximise sustainability benefits from existing landscape, townscape and heritage assets by valuing them inherently and for the wider services they provide. Development proposals should not harm, and should seek to make a positive contribution to, the characteristics national landscapes and national parks.	Historic Landscape Characterisation Project level landscape and visual impacts assessments as part of subsequent EIA/ consenting process Heritage Impact Assessments
SEA9: Historic Environment	Promoters and designers should liaise closely with Local Authorities and Historic England to avoid or minimise negative effects, such as land take and light pollution, whilst seeking to maximise benefits, such as tranquillity. Where developments are being built and/or improved within, or close proximity to designated historic assets, visual effects assessment should be undertaken to determine magnitude of impact and possible mitigation.	Project level landscape and visual impacts assessments as part of subsequent EIA/ consenting process Heritage Impact Assessments
SEA9: Historic Environment	Development proposals with the potential to affect World Heritage Sites or their settings should be supported by Heritage Impact Assessments.	Project level landscape and visual impacts assessments as part of subsequent EIA/ consenting process Heritage Impact Assessments

SEA Objective	Mitigation/Enhancement	Mechanism (as applicable)
SEA8: Landscape and Townscape SEA9: Historic Environment	Sensitive design should be considered for any new developments within town centres to ensure positive effects on local heritage assets and landscapes.	Historic Landscape Characterisation Project level landscape and visual impacts assessments as part of subsequent EIA/ consenting process
SEA12: Air Quality	A Dust Management Plan should be compiled prior to demolition and construction of new options.	Project level Construction Environmental Management Plan (CEMP)
SEA13: Climate Change SEA14: GHG Emissions	Development should ensure design that is resilient to the current and future risks of climate change i.e. extreme heat, cold and precipitation. This could include the use of locally available, renewable, or reclaimed resources, as these are often more resilient. New developments should incorporate renewable energy generation methods, such as solar panels, to reduce the carbon emissions of the site.	Project level design and assessment as part of subsequent EIA/ consenting process
SEA13: Climate Change	Flood Risk Assessments should be undertaken for all developments located in Flood Zone 2 or 3. The inclusion of SuDS should be implemented where developments are located in flood zones.	Project level design and assessment as part of subsequent EIA/ consenting process
SEA13: Climate Change SEA14: GHG Emissions SEA11: Water Environment SEA15: Material Assets	Any form of construction and operation should be undertaken as sustainably as possible, making use of tools and processes, such as circular economy, waste hierarchy and should consider BREEAM and BREEAM Infrastructure. Sustainable design and construction techniques should be promoted, such as low energy lighting and opportunities for renewable energy regeneration. All interventions should consider climate change resilience and adaptation from early design. Where land take is required, preference should be given to brownfield land/ previously developed land and avoidance of the best and valuable land.	Project level design and assessment as part of subsequent EIA/ consenting process

8.2 Monitoring Measures

- 8.2.1. The SEA Regulations require that monitoring is undertaken on a plan so that the significant effects of implementation can be identified, and remedial action imposed. The purpose of the monitoring is to provide an important measure of the sustainability outcome of the final plan, and to measure the performance of the plan against sustainability objectives and targets. Monitoring is also used to manage uncertainty, improve knowledge, enhance transparency and accountability, and to manage sustainability information.
- 8.2.2. The aim of monitoring is to check whether, once implemented, the plan or programme is having the significant effects that were predicted in the SEA, and to deal with any unforeseen problems.
- 8.2.3. Given the high level nature of the SIP and that the actual delivery and implementation of the proposals will be facilitated through other plans such as Local Transport Plans (LTPs) and by local transport authorities/ bodies, it is not considered reasonable to set out monitoring measures at this stage. Monitoring measures should be identified through the lower level LTPs and their accompanying SEAs and be aligned with ongoing monitoring carried out by the local transport authorities/ bodies.

9 Next Steps

- 9.1.1. In accordance with the SEA Regulations, the SEA Report was made available alongside the draft SIP and informed its development.
- 9.1.2. Once the SIP is adopted, an SEA Post-Adoption Statement will be produced to document the process and will include a record of the comments received on both the SIP and SEA Environmental Report, and the actions taken as well as setting out how the SEA has influenced the development of SIP.
- 9.1.3. An indicative timetable of the remaining stages of the SEA and SIP have been included in **Table 9-1** below.

Table 9-1 – Indicative Local Plan and SA Timetable

SEA and SIP Stages	Timescales
SIP Adoption	March 2025
SEA Post Adoption Statement	April 2025

Appendix A

Assurance Checklist

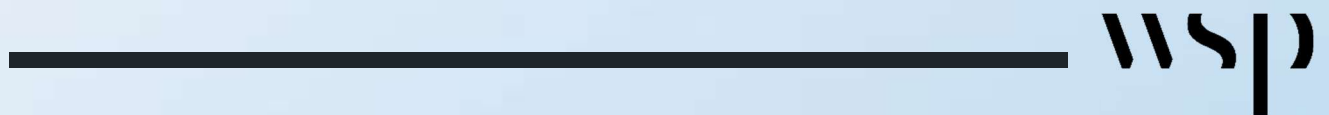


Table A-1 sets out the quality assurance checklist, taken from the SEA Regulations.

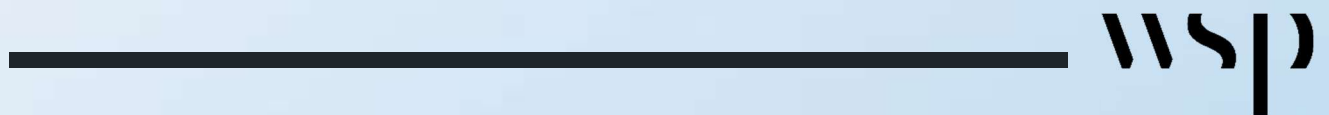
Table A-1 - Quality Assurance Checklist

SEA Regulations	Summary
Preparation of Environmental Report (Regulation 12)	
Preparation of an environmental report that identifies describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme (regulation 12(2)).	The Environmental Report presents an assessment of the SIP's options in Section 5 and Appendix E. Alternative options have been assessed within Section 6 and Appendix E.
The report shall include such of the information referred to in Schedule 2 as may reasonably be required, taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in the process to avoid duplication of the assessment (regulation 12(3)). Information may be provided by reference to relevant information obtained at other levels of decision-making or through other EU legislation (regulation 12 (4)).	Please refer to the comments provided below in this table in relation to Schedule 2.
When deciding on the scope and level of detail of information to be included in the environmental report the consultation bodies should be consulted (regulation 12 (5)).	A Scoping Report was produced and sent to the statutory bodies in October 2024 for review and comment. The responses received and how they have been taken into account are presented in Appendix C of the Environmental Report.
Information referred to in Schedule 2	
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes	The purpose and contents of the SIP, including vision and objectives, is provided in Section 2 of the Environmental Report. While the scoping report in Appendix B outlines the review of other plans/ programmes.
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	The relevant aspects of the current state of the environment are in Section 4 and Appendix B, along with the likely evolution of the baseline without the implementation of the SIP.
c) The environment characteristics of areas likely to be significantly affected.	The environment characteristics of areas likely to be significantly affected are presented in Section 4 and Appendix B of the Environmental Report.
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 2009/147/EC (Conservation of Wild Birds) and 92/43/EEC (Habitats Directive).	Existing environmental problems are set out in Section 4 and Appendix B of the Environmental Report. This includes designated sites.
e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	Appendix E of the Environmental Report present a list of other plans/ programmes and legislation applicable to the SIP. These plans and their objectives have been taken into account during the development of the SEA Appraisal Framework (Section 4.4).
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscapes and the interrelationship between the above factors. These effects should include secondary,	The SEA framework presented in Section 4 of the Environmental Report covers all of the issues referred to in the SEA Regulations.

cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.	The assessments of the SIP include consideration of cumulative (intra- and inter-plan) effects (in Section 7) as well as the duration and nature of effects.
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	Mitigation measures are identified in Section 8.1 of the Environmental Report.
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	The reasons for selecting alternatives dealt with has been outlined in Section 6 of the Environmental Report.
i) A description of measures envisaged concerning monitoring in accordance with regulation 17.	Monitoring measures are presented in Section 8.2. They are set out for SA objectives where uncertain effects have been identified.
Consultation procedures (regulation 13)	
As soon as reasonably practicable after their preparation, the draft plan or programme and environmental report shall be sent to the consultation bodies and brought to the attention of the public, who should be invited to express their opinion. The period within which opinions must be sent must be of such length as will ensure an effective opportunity to express their opinion.	The Environmental Report was consulted on alongside the draft SIP for public consultation from December 2024 to January 2025.
Information as to adoption of plan or programme (regulation 16)	
As soon as reasonably practicable after the plan or programme is adopted, the consultation bodies, the public and the Secretary of State (who will inform any other EU Member States consulted) shall be informed and the following made available: <ul style="list-style-type: none"> the plan or programme adopted the environmental report 	This requirement does not need to be addressed at this stage in plan-making.
Monitoring (regulation 17)	
Monitoring of significant environmental effects of the plan's or programme's implementation with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action (regulation 17 (1)). Monitoring arrangements may comprise or include arrangements established for other purposes (regulation 17 (2)).	While the requirements under regulation 17 relate to post adoption of the plan, recommendations have been made earlier in this table as to how the Environmental Report can be strengthened with regard to monitoring.

Appendix B

Scoping Report





Western Gateway Strategic Transport Body

STRATEGIC INVESTMENT PLAN

Strategic Environmental Assessment Scoping
Report

Western Gateway Strategic Transport Body

STRATEGIC INVESTMENT PLAN

Strategic Environmental Assessment Scoping Report

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APPENDICES

APPENDIX A

REVIEW OF PLANS, POLICIES AND PROGRAMMES

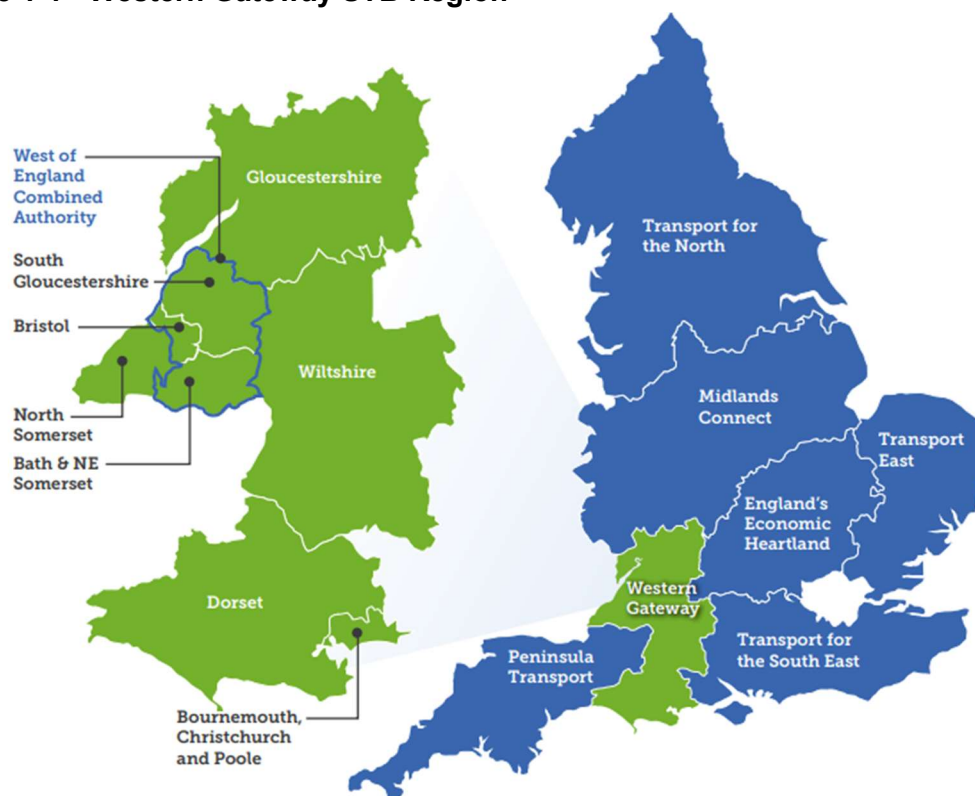
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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1. 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). The SIP is a requirement of Western Gateway's funding grant letter from Department for Transport and will set out priorities for transport interventions across the Western Gateway STB region.
- 1.1.2. 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.
- 1.1.3. 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
 - West of England Combined Authority (West of England CA)
- 1.1.4. The Western Gateway STB Region and its relationship with the other STBs is shown in **Figure 1-1** overleaf. An overview figure (**Figure C-1**) can also be found in **Appendix C**.

Figure 1-1 - Western Gateway STB Region¹



1.2 PURPOSE OF THE REPORT

- 1.2.1. WSP has been appointed by Western Gateway STB to assist with undertaking a Strategic Environmental Assessment (SEA) of the SIP. The SEA will ensure that sustainability considerations are included as part of the development of the SIP.
- 1.2.2. This report sets out the first stage of the SEA process, known as scoping. The purpose of this stage is to define the scope of the SEA by:
- Establishing the context of the SIP, vision and objectives, and the likely options for the delivery of the SIP (**Section 2**).
 - Presenting the methodology and framework for undertaking the SEA (**Section 3**).
 - Reviewing current relevant legislation, plans and programmes baseline (**Section 4**).
 - Establishing the current and future environmental, social and economic baseline for the area (**Section 5**).
 - Identifying key issues and opportunities for the SIP (**Section 5**).
 - Identifying sustainability objectives to inform an overall framework for appraisal of options (**Section 6**), and

¹ Western Gateway (2024) Strategic Transport Plan 2024-2050. Available online at:
<https://westerngatewaystb.org.uk/strategy/western-gateway-strategic-transport-plan/>

- Setting out the next steps (**Section 7**).

2 STRATEGIC INVESTMENT PLAN

2.1 CONTEXT

- 2.1.1. The Western Gateway STB is one of the seven sub-national transport bodies in England. The STB provides joint strategic leadership on strategic transport matters, across the nine constituent Local Authorities within the region, as shown in **Figure 1-1**.
- 2.1.2. Western Gateway published their Strategic Transport Plan (STP)² 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.
- 2.1.3. The STP is aligned with plans produced by National Highways and Network Rail. It focuses on strategic issues relevant to the region as a whole, based on the following seven criteria:
- Have significant impact beyond local boundaries
 - Require cross-boundary co-operation and/or delivery
 - Improve access to regionally or nationally significant destinations
 - Improve access to regionally or nationally significant gateways
 - Overcome a severance or connectivity issue that unlocks regional benefits or resilience
 - Facilitate strategic movement between the Midlands and the South Coast
 - Increase efficiency, reliability and/or sustainability of essential goods movement on strategic routes
- 2.1.4. 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 key themes within the STP include:
- Sustainable growth and economy
 - Decarbonisation and air quality
 - Access to services and opportunities
 - Facilitate strategic north-south movements, and
 - Movement of goods.
- 2.1.5. The Strategic Investment Plan (SIP) will provide 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.

² 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/>

2.2 VISION AND OBJECTIVES

2.2.1. The vision and objectives for the SIP remain the same as those of the STP.

2.2.2. 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.”

2.2.3. 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.
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.

2.3 OVERVIEW OF SIP OPTIONS PROPOSALS

2.3.1. Around 100 proposals were submitted to the STB by the nine Local Authorities in the region, National Highways and Network Rail. This long-list of options will be subject to an assessment process against the 12 objectives listed above via a multi-criteria assessment, with approximately 30 top priority proposals identified as the primary focus of future investment recommendations.

2.3.2. The current long list includes different proposal types such as public transport, mass transit, transport hubs and interchanges, active travel and road improvements (including capacity and safety improvements).

3 SEA METHODOLOGY

3.1 REGULATORY REQUIREMENTS

- 3.1.1. Strategic Environmental Assessment (SEA) is mandatory for plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste or water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development consent of projected listed in the Town and Country Planning (Environmental Impact Assessment) Regulations³.
- 3.1.2. SEA is enacted in law through the 'Environmental Assessment of Plans and Programmes Regulations' (known as the SEA Regulations)⁴.
- 3.1.3. SEA is an iterative process of gathering data and evidence, assessment of environmental effects, developing mitigation measures and making recommendations to refine plans or programmes in view of the predicted environmental effects.
- 3.1.4. Its aim is to identify the likely significant effects on the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between them.
- 3.1.5. Western Gateway STB is not a statutory body, so there is no legal requirement to undertake specific assessments reflecting the requirements of the regulatory framework for transport plans. However, the STB constituent authorities are bound by these regulations, and there is a wish to demonstrate best practice and clear commitments to the over-arching aims of accessibility, equity, affordability and safety that are stated in the long term STP for the region.

3.2 KEY STAGES

- 3.2.1. The key stages of the SEA process as follows:
 - **Stage A:** Setting the context and objectives, establishing the baseline and deciding on scope (this stage).
 - **Stage B:** Developing and refining strategic alternatives and assessing their effects.
 - **Stage C:** Preparing the Environmental Report.
 - **Stage D:** Consulting on the draft plan or programme and the Environmental Report and prepare a Post Adoption Statement.
 - **Stage E:** Monitoring the significant effects of implementing the plan or programme on the environment.

³ Town and Country Planning (Environmental Impact Assessment) Regulations, 2017
<https://www.legislation.gov.uk/ukxi/2017/571/contents/made>

⁴ The Environmental Assessment of Plans and Programmes (Amendment) Regulations 2020,
<https://www.legislation.gov.uk/ukxi/2020/1531/made>

3.3 ADDITIONAL ASSESSMENTS

- 3.3.1. In addition to the SEA and in line with policy and best practice, an equality impact assessment (EqIA) and a health impact assessment (HIA) will be undertaken. These complementary assessments, which are outline below, will inform the SEA.

Equalities Impact Assessment

- 3.3.2. The Equality Act 2010⁵ includes a public-sector equality duty that requires public organisations and those delivering public functions to show due regard to the need to eliminate unlawful discrimination, harassment and victimisation; advance equality of opportunity; and foster good relations between communities.
- 3.3.3. The EqIA process focuses on assessing and recording the likely equality effects as a result of a policy, project or plan. It seeks to ensure that the policy, project or plan does not discriminate or disadvantage people and enables consideration of how equality can be improved or promoted. The equality duty came into force in April 2011 and covers the following nine Personal Protected Characteristics:
- Age
 - Disability
 - Gender
 - Gender Reassignment
 - Marriage and Civil Partnership
 - Pregnancy and Maternity
 - Race
 - Religion or Belief, and
 - Sexual Orientation.

Health Impact Assessment

- 3.3.4. HIA is a process to identify the likely health effects of plans, policies or developments and to implement measures to avoid negative impacts and promote opportunities to maximise the benefits. There is no formally adopted methodology for HIA although there is a body of practice and guidance at a policy level.
- 3.3.5. HIA is not a statutory requirement of the statutory local transport plan preparation process nor of the SIP. However, Planning Practice Guidance states that '*Local planning authorities should ensure that health and wellbeing and health infrastructure are considered in local, and neighbourhood plans and in planning decision making*'.
- 3.3.6. HIAs can be done at any stage in the development process but are best done at the earliest stage possible.

⁵ HM Government (2010) Equality Act, [online] available at: [Equality Act 2010 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2010/15/contents/enacted)

4 POLICY CONTEXT

4.1 INTRODUCTION

- 4.1.1. Economic, social and environmental objectives relevant to the SIP in international, national, regional and local governance have been reviewed to help establish the scope of the SEA.
- 4.1.2. Regulation 12(3), Schedule 2, Information for Environmental Reports of the SEA Regulations requires information on the following:
- An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes (Schedule 2, Paragraph 1); and
 - The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation (Schedule 2, Paragraph 5).
- 4.1.3. The purpose of the review is to ensure the SEA complies with relevant legislation and governance. The process entails identifying and reviewing environmental protection objectives that are directly relevant to both the SIP and to the SEA.
- 4.1.4. The scoping task of identifying related legislation, policies and plans cannot yield an exhaustive or definitive list. The review has therefore been focussed to ensure only policies that are current and of direct relevance to the SIP and sustainability are included.

4.2 KEY MESSAGES FROM POLICY REVIEW

- 4.2.1. A detailed outline of the policy documents, objectives and targets reviewed is set out in **Appendix A. Table 4-1** below outlines the key messages of the review. The review provides the context for the SEA and helps to inform the SEA Framework of objectives (Section 6), which will guide the subsequent appraisal process.

Table 4-1 – Key Messages from Policy Review

SEA Topic	Key Messages from Review
Population and Human Health	<ul style="list-style-type: none"> • Transport is a key factor shaping growth and experiences of poverty. The ability of households in poverty to find paid work often depends on access to affordable, regular and reliable transport. • Infrastructure should support sustainable and inclusive economic growth through improving connectivity and access to jobs and key services addressing inequality and tackling the climate and ecological emergencies. • Transport can facilitate social interactions and promote social inclusion and plays a key role in improving access to health services, particularly for vulnerable groups. Good placemaking is linked to a wider set of positive social, economic and environmental outcomes. • Regular physical activity provides a range of physical and mental health and social benefits. • Safety is an important consideration for road users owing to the significant impact of serious and fatal collisions. • There is a need to:

SEA Topic	Key Messages from Review
	<ul style="list-style-type: none"> Promote healthy standards of living Prioritise walking, cycling and use of public transport, and Enhance accessibility to key community facilities, services and jobs for all.
Economy and Employment	<ul style="list-style-type: none"> Transport has a key role in supporting sustainable and economic growth through improved access to work opportunities and education facilities; efficiency and reliability on networks; supporting the delivery of new housing and employment; and generating investment. The National Planning Policy Framework (NPPF) states that planning policies should recognise and address the specific locational requirements of different sectors, which includes making provision for clusters or networks of knowledge and data-driven, high technology industries in suitably accessible locations. Working with businesses and infrastructure owners is necessary to develop proposals that meet the needs of the freight and logistics sector. The Western Gateway area should be viewed as both a single area containing some of the UK's fastest-growing local economies as well as being a crucial facilitator of improved connectivity to other parts of the country, including the South West, the Solent area, South Wales and the West Midlands. There is a need to: <ul style="list-style-type: none"> Promote a low carbon economy Create the conditions for equitable growth Support the sustainable growth and expansion of businesses, and Deliver increased economic growth and decreased emissions.
Biodiversity	<ul style="list-style-type: none"> The UK Government has committed to halting the decline in species abundance by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042. It has also committed to protect 30% of our land and sea for nature through the Nature Recovery Network and enhanced protections for marine protected areas. There is a need to: <ul style="list-style-type: none"> Identify opportunities for green infrastructure provision, recognising the multiple functions that green infrastructure provides to the area and linking into regional and national green infrastructure networks; Protect and enhance biodiversity, including designated sites, priority species, habitats and ecological networks; Minimise the impact on biodiversity and ensure net gain wherever possible; Maintain and enhance ecosystems and their services; and Improve the long-term sustainability of ecological and physical processes that underpin the functioning of ecosystems.
Historic Environment	<ul style="list-style-type: none"> The delivery of transport interventions should not have adverse impacts to the historic environment. There is a need to: <ul style="list-style-type: none"> Avoid harm to the significance of heritage assets Conserve and enhance nationally and locally designated cultural and historical assets as well as those which are undesignated; Enhance the beauty of the natural scenery and improving its environmental value while being sensitive to considerations of its heritage; Encourage access to and engagement with the historic environment; and

SEA Topic	Key Messages from Review
	<ul style="list-style-type: none"> • Ensure that transport development adjacent, or in close proximity to the local conservation areas, designated assets, archaeological remains or listed buildings, respects their character and context, and does not detract from the quality of the built environment. • Ensure that development seeks opportunities for good design that is sensitive to the historic environment and seeks to enhance the sense of place, character and experience of the historic environment.
Landscape and Townscape	<ul style="list-style-type: none"> • The delivery of transport interventions should not have adverse impacts on the quality of the natural and built environment. • There is a need to: <ul style="list-style-type: none"> • Conserve and enhance the quality and distinctiveness of natural landscapes and seascapes, including National Landscapes in ways that allow them to continue to evolve; and • Provide greater access to greenspace, to help reconnect people to nature.
Water Environment	<ul style="list-style-type: none"> • Water resources in the STB region are under increasing pressure from a growing population, climate change and environmental needs. • Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest flood risk. • Any 'essential infrastructure' proposed to be located in Flood Zone 3a or 3b should be designed and constructed to remain operational and safe for users in times of flood. • There is a need to: <ul style="list-style-type: none"> • Protect and enhance surface and groundwater quality and ensure that water quality is improved or maintained where possible; and • Avoid development in areas prone to flooding.
Air Quality, Greenhouse Gases and Climate Change	<ul style="list-style-type: none"> • The UK Clean Air Strategy outlines plans to reduce emission of pollutants and improve air quality by the year 2030. • All local authorities within the STB region have declared a climate emergency, pledging to take action to become carbon neutral in their Council operations by 2030, with the exception of Dorset Council who have pledged to become carbon neutral by 2040. These councils are also committed to helping their wider areas to achieve carbon neutrality. • National Highways and Network Rail have both pledged to become net zero across the whole network by 2050. • 2050 has also been agreed as the target date to achieve net zero carbon from transport in the Western Gateway Strategic Transport Plan. • Take all possible action to mitigate climate change, while adapting to reduce its impact. • Avoid increased vulnerability to the range of impacts arising from climate change. • There is a need to: <ul style="list-style-type: none"> • Ensure that air quality is maintained (through net maintenance) or enhanced and that emissions of air pollutants are kept to a minimum; • Reduce emissions of greenhouse gases that may cause climate change; • Increase energy efficiency and move towards a low carbon economy; • Ensure that infrastructure is resilient to the impacts of climate change; and • Support the transition to electric vehicles, especially in light of the ban on new petrol and diesel vehicles in the UK by 2035.

SEA Topic	Key Messages from Review
Material Assets	<ul style="list-style-type: none"> The delivery of new developments should not have adverse impacts on soils, land stability, or resources. There is a need to: <ul style="list-style-type: none"> Facilitate the sustainable use of minerals and minimise impacts on soil quality, considering any mitigation measures proposed; Maintain and enhance geodiversity through the management of sites, areas and wider landscapes; and Consider land stability in respect of new development; and Encourage a circular economy.

5 BASELINE, ISSUES AND OPPORTUNITIES

5.1 INTRODUCTION

- 5.1.1. This section sets out the key baseline information for each of the SEA topics, as well as anticipated future trends without the implementation of the SIP. It also identifies key issues and opportunities for sustainability in relation to the SIP, which have been used to develop an SEA appraisal framework which is presented in **Section 6**.
- 5.1.2. A summary of the current baseline for all the Local Authorities within the Western Gateway STB area has been provided below. Further information on current baseline for individual Local Authorities can be found in **Appendix B**. GIS based figures are included in **Appendix C**.

5.2 POPULATION AND HUMAN HEALTH

SUMMARY OF CURRENT BASELINE

- 5.2.1. The population of the Western Gateway STB region is increasing with the total current population being approximately 3,629,476 people⁶. The overall population of the region is ageing, with the proportion of people aged over 65 years increasing across all local authorities within the Western Gateway STB region. The areas of BCP and the West of England CA, have the highest proportion of young adults (20-24 years) when compared to other local authorities in the Western Gateway STB area⁶. Conversely, Dorset has the highest proportion of elderly residents (70—74 years)⁶.
- 5.2.2. Bristol City has the highest population density out of all areas within the Western Gateway STB (4,308 people per square kilometre), followed by BCP (2,470 people per square kilometre)⁶. This is significantly higher than the national average population density of 434 people per square kilometre. Conversely, the population density for Dorset is significantly lower than the national figure at 152 people per square kilometre. All other areas of the Western Gateway have population densities that are slightly higher than the national figure, but lower than Bristol and BCP⁶.
- 5.2.3. Across the Western Gateway STB region, there is a slightly higher proportion of females when compared to males (50.9% females compared to 49.1% males), similar to the national figure with 51.1% females and 48.9% males⁶.
- 5.2.4. Within the Western Gateway STB region, the majority of the population identify as being Christian (45.4%), followed by no religion (44.4%), not answered (6.5%), Muslim (1.8%), Hindu (0.6%), Other Religion (0.6%), Buddhist (0.5%), Jewish (0.2%), and Sikh (0.2%)⁷.

⁶ Office for National Statistics (2021) Population and household estimates, England and Wales: Census 2021. Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationandhouseholdestimatesenglandandwales/census2021>

⁷ Office for National Statistics (2022) Religion, England and Wales: Census 2021. Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/religion/bulletins/religionenglandanddwales/census2021>

- 5.2.5. The largest ethnic group within the Western Gateway STB region is White (92%), followed by Mixed or Multiple Ethnic Groups (3.1%), Asian (including Asian British or Asian Welsh) (3.0%), Black (including Black British, Black Welsh, Caribbean or African) (1.6%), Other Ethnic Group (0.9%)⁸.
- 5.2.6. Across the Western Gateway STB region, average life expectancy at birth is higher for females than it is for males, reflecting the national trends. The local authority with the lowest life expectancy at birth is Bristol City with a life expectancy of 78.2 years for males and 82.6 years for females⁹, lower than the national average of 79.3 years for males and 83.2 years for females. All other local authorities within the Western Gateway STB region have a higher life expectancy for both males and females when compared to the national figure.
- 5.2.7. Across the Western Gateway STB region, the proportion of adults (aged 18+) that are physically active is above the national average (67.1%) in all of the local authority areas.
- 5.2.8. The proportion of adults who are classified as overweight or obese in the Western Gateway STB region is varied, with BCP, Dorset, and the West of England CA lower than the national figure of 62% of adults considered to be obese or overweight. However, the proportion of adults classed as overweight or obese in Wiltshire and Gloucestershire are both in line with the national average. In Year 6 children, the proportion of children classified as obese is lower than the national average (20.2%) in all local authorities within the Western Gateway STB region. Similarly, levels of obesity in reception age children is also lower than the national figure across all local authorities within the Western Gateway STB region.
- 5.2.9. The general health of the population of the Western Gateway is largely similar across all regions. **Table 5-1** shows the breakdown of self reported health from the 2021 Census for different local authorities within the region¹⁰.

⁸ Office for National Statistics (2022) Ethnic Group, England and Wales: Census 2021. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/bulletins/ethnicgroupenglandandwales/census2021>

⁹ Department of Health and Social Care (2023) Fingertips, Local Authority Health Profiles. Available at: <https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/ati/302/are/E06000023>

¹⁰ Office for National Statistics (2022) General Health, England and Wales: Census 2021. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/generalhealthenglandandwales/census2021>

Table 5-1 - Health profile of the population of the Western Gateway STB region

Health	BCP	Dorset	Gloucestershire	North Somerset	Wiltshire	West of England CA		
						Bath and North East Somerset (B&NES)	Bristol City	South Gloucestershire
Very Good Health	48.4%	49.2%	48.5%	49.4%	50.5%	51.4%	46.7%	48.9%
Good Health	34.1%	34.5%	34.6%	33.6%	34.0%	33.1%	33.5%	34.6%
Fair Health	12.6%	12.0%	12.5%	12.3%	11.6%	11.3%	13.6%	12.1%
Bad Health	3.9%	12.0%	3.4%	3.8%	3.2%	3.2%	4.8%	3.3%
Very Bad Health	1.1%	0.9%	0.9%	1.1%	0.8%	0.9%	1.5%	0.9%

- 5.2.10. The proportion of people within the Western Gateway STB region who are disabled under the Equality Act is lower across all local authorities when compared to the national average (17.7%)¹¹.
- 5.2.11. Generally, across the Western Gateway STB region, levels of deprivation are low. However, there are a number of Lower Super Output Areas (LSOAs)¹² in the most 10% deprived nationally. The area of Bristol City is the 30% most deprived local authorities nationally. This is in line with the national trend of urban populations experiencing higher levels of deprivation. There are also substantial pockets of deprivation in North Somerset, and smaller pockets of deprivation in Bath. Maps showing the Indices of Multiple Deprivation in more detail can be seen in **Figures C-2 to C5 in Appendix C**.
- 5.2.12. The number of people killed or seriously injured (KSI) within each local authority in the region can be found in **Table B-1 in Appendix B**.
- 5.2.13. According to the Department for Transport (DfT), in 2022, 75% of fatalities and 62% of casualties of all severities in Great Britain were male¹³. In addition, 25% of fatalities and 29% of casualties were aged 17 to 29 years old and 23% of fatalities and 7% of casualties were aged 70 years old and over. During the same time period, 46% of fatalities on Great Britain's roads were car occupants, 22% were pedestrians, 21% were motorcyclists and 5% were pedal cyclists.
- 5.2.14. The crime rate across the Western Gateway STB region is varied, with urban areas such as Bristol experiencing higher levels of crime when compared to more rural areas. Individual levels of crime within each local authority area can be found in **Table B-1 in Appendix B**. Crime as a whole has been rising in England and Wales, as a rate of 93.6 crimes per 1000 people is the highest since 2006/7¹⁴. The South West is the third safest region in England. The overall crime rate in the South West in 2022 was 61 crimes per 1,000 people, and the most common crimes were violence and sexual offences, which happened to roughly every 28 out of 1,000 residents¹⁵. Notably, Gloucestershire County Council reports that Gloucester City is the only district within Gloucestershire that had a higher crime rate than the national crime rate¹⁵.
- 5.2.15. In 2021/22, the number of reported sexual offences committed on public transport in the UK decreased by 7.3% from 2019/20 (52.3% of these assaults were against females). The number of

¹¹ Office for National Statistics, Disability England and Wales: Census 2021. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/disabilityenglandandwales/census2021>

¹² 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.

¹³ DfT, Reported road casualties Great Britain, provisional results: 2022, May 2023 [online] available at: <https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-provisional-results-2022/reported-road-casualties-great-britain-provisional-results-2022>

¹⁴ Statista, Crime Rate by Area – England and Wales 22/23. Available online at: <https://www.statista.com/statistics/866788/crime-rate-england-and-wales-by-region/>

¹⁵ CrimeRate. South West Crime Statistics. Available at: <https://crimerate.co.uk/south-west>

drug offences increased by 8.7% to 3,114 in 2021/22 (93% of these being possession of controlled drug)¹⁶.

- 5.2.16. According to the Office for National Statistics (ONS), one in ten people aged 16 and over have experiences at least one form of harassment in the last 12 months that made them feel upset, distressed or threaten¹⁷. Experiences of harassment are more prevalent among younger age groups, with one in five 16- to 19-year-olds (20%) and 20- to 24-year-olds (21%) having experienced at least one type of harassment in the previous 12 months. Of those who experience some form of sexual harassment, 19% said they had experienced sexual harassment on public transport.
- 5.2.17. The Department for Transport commissioned a national survey¹⁸ on women and girls' experiences on public transport:
- 49% felt threatened when making a journey on public transport.
 - 46% have seen women and girls subject to verbal aggression on public transport.
 - 42% have been subject to verbal abuse.
 - 14% have been physically assaulted/threatened.
 - 85% thought about their safety when planning or making a journey.
- 5.2.18. Noise can have a significant impact on human health, beyond just being annoying or disturbing sleep. The UK Health Security (UKHSA) recent study found that traffic noise can increase the risk of more serious health conditions such as strokes, diabetes, ischemic heart disease as well as mental health conditions such as stress and anxiety¹⁹.
- 5.2.19. Noise Important Areas (NIAs) are hotspots where the highest 1% of noise from roads and railway at residential locations can be found. There are several NIAs throughout the Western Gateway STB region, concentrated in and around the town centres, and along major roads in the area, such as the M4, M5, M30, M32, and A35²⁰.

FUTURE BASELINE

- 5.2.20. Population projections by the ONS suggest that, by 2050, those aged 65 and over will make up 24.7% of England's total population. By 2032, it is anticipated that more people will be living on their own, making up 40% of all households nationally. The number of over 85s living alone is expected to more than double to 1.4 million nationally in which social isolation could become a more prevalent issue. This may be further exacerbated by the number of people living rurally.

¹⁶ British Transport Police, Statistical Bulletin 2021/22. Available online at: [stats_bulletin_2021_2022.pdf \(btp.police.uk\)](https://www.btp.police.uk/stats_bulletin_2021_2022.pdf)

¹⁷ ONS, Experiences of harassment in England and Wales: December 2023, [online] available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/experiencesofharassmentinenglandandwales/december2023>

¹⁸ Government Equalities Office, 2020 Sexual Harassment Survey [online] available at: https://assets.publishing.service.gov.uk/media/60f03e068fa8f50c77458285/2021-07-12_Sexual_Harassment_Report_FINAL.pdf

¹⁹ UKHSA, Noise pollution: mapping the health impacts of transportation noise in England, available online at: <https://ukhsa.blog.gov.uk/2023/06/29/noise-pollution-mapping-the-health-impacts-of-transportation-noise-in-england/>

²⁰ Extrium, England Noise and Air Quality Viewer. Available at: <http://www.extrium.co.uk/noiseviewer.html>

- 5.2.21. The population of the Western Gateway STB region is anticipated to grow faster than the national figure; growing by 15% by 2041, compared to 12% national growth²¹. Similarly to the national trend, it is anticipated that the ageing population of Western Gateway STB region will also increase in line with this population increase.
- 5.2.22. An increased population will see an increase in demand on services, particularly transport and mobility, with the future implementation of transport policies required to consider how to better respond to the mobility needs of a more diverse, growing and ageing population, ensuring equity of access to services and facilities such as schools, healthcare and education facilities²².
- 5.2.23. This could become a significant issue across the Western Gateway STB region and may present specific challenges in rural areas, particularly in combination with the ageing demographic. Higher age groups can have particularly complex transport and accessibility requirements. For example, across the UK, approximately 850,000 people are estimated to have dementia. This number is projected to rise to over one million by 2025 and two million by 2051²³.
- 5.2.24. A population with a larger proportion of older people will likely result in an increase in the number of people in the region with physical and sensory impairments which could result in a greater demand for access to health and social care services.
- 5.2.25. Within the next decade, two million people aged 50 and over in England are projected to be lonely and/or experiencing social isolation²⁴. Transport-related social exclusion – in which limited access to transport or other issues with the transport system prevent people from fully participating in society in the way they would like – has been recognised since the 1970s.
- 5.2.26. The use of public transport is significantly lower in rural areas than in urban areas across all age groups. Low population density and longer journey distances in rural areas mean that providing cost-effective, regular and convenient public transport is already challenging.
- 5.2.27. In 2016, 14% of the working age population in the UK were from a Black, Asian and Minority Ethnic (BAME) background. This is increasing, with the proportion expected to rise to 21% by 2051. The working population within the Western Gateway STB region is likely to become increasingly diverse, as indicated by this national trend. However, the employment of minority ethnic groups is twelve percentage lower than white people²⁵.

²¹ Western Gateway, Economic Connectivity Study. Available at: <https://westerngatewaystb.org.uk/strategy/economic-connectivity-study/>

²² Lin, D. and Cui, J. (2021). Transport and Mobility Needs for an Ageing Society from a Policy Perspective: Review and Implications. Available online at: Transport and Mobility Needs for an Ageing Society from a Policy Perspective: Review and Implications - PMC (nih.gov)

²³ Alzheimer's Society UK, Facts for the Media about Dementia. Available online at: <https://www.alzheimers.org.uk/about-us/news-and-media/facts-media>

²⁴ Age UK, Later Life in the United Kingdom (2019). Available online at: https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/late_life_uk_factsheet.pdf

²⁵ West of England Combined Authority, 2023. State of the West of England: emerging evidence. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2023/07/State-of-the-West-of-England-emerging-evidence_Jul23-2.pdf

- 5.2.28. In 2023 in England, about one in five children and young people aged 8 to 25 years had a probable mental health condition. This was 20.3% of 8 to 16 year olds, 23.3% of 17 to 19 year olds and 21.7% of 20 to 25 year olds²⁶.
- 5.2.29. There are around 7.6 million people living with heart and circulatory diseases in the UK - an ageing and growing population and improved survival rates from heart and circulatory events could see these numbers rise still further. In 2021, heart and circulatory diseases were responsible for more than a quarter (27%) of all deaths in the UK²⁷.
- 5.2.30. High rates of overall deprivation create a unique set of challenges for transport. There are multiple factors that can contribute to this distribution including a lack of service provision, limited accessibility and opportunity, and poor digital connectivity.
- 5.2.31. The anticipated population growth and the increasing affordability and convenience of car travel is likely to result in an increase in the number of private vehicles on the roads. This could have subsequent cumulative effects on air quality, noise pollution and public health if current trends continue.
- 5.2.32. As the population of the region increases, and the level of car ownership increases, there are expected to be a greater number of vehicles on the region's roads, which may result in an increase in the number of accidents and those killed or seriously injured (KSI) on roads.
- 5.2.33. Transport infrastructure is one of the key challenges in the Western Gateway, specifically the West of England CA. There is a high dependence on the private car, with two-thirds of commutes taking place by car. Two out of every five of those journeys are less than 5km in distance²⁸. Travel without a personal vehicle can often be difficult or inconvenient, particularly in rural areas where services and facilities are often in low abundance due to lower population density and critical mass.
- 5.2.34. The rising cost of living, or the 'cost-of-living crisis', is also predicted to impact those with pre-existing mental health problems, as they are among those at greatest risk²⁹. It is well documented that recessions increase social inequalities, which are drivers of poor mental health³⁰.
- 5.2.35. Reduced levels of physical activity is a growing issue nationally, with fewer people reporting that they are achieving the level of activity recommended by the NHS. Effective transport planning can play a role in encouraging active transport choices (e.g., walking and cycling) as well as improve

²⁶ NHS Digital, Mental Health of Children and Young People in England (2023). Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2023-wave-4-follow-up#summary>

²⁷ UK Government, Trend Deck (2021) – Health. Available online at: <https://www.gov.uk/government/publications/trend-deck-2021-health>

²⁸ West of England Industrial Strategy (2019).

²⁹ Mental Health Foundation (2023) Mental Health and the Cost-of-Living Crisis: Another pandemic in the making? Available at: <https://www.mentalhealth.org.uk/our-work/policy-and-advocacy/mental-health-and-cost-of-living-crisis-report>

³⁰ Wahlbeck, K. & McDaid, D. (2012), 'Actions to alleviate the mental health impact of the economic crisis', World Psychiatry Available at: <https://doi.org/10.1002/j.2051-5545.2012.tb00114.x>

accessibility to sports and recreation facilities. Continued traffic growth without adequate provision for pedestrian and cyclists' facilities is unsustainable.

- 5.2.36. Air pollution has been linked to diabetes and dementia – both chronic illnesses in the UK are expected to rise in future. Increased mortality and morbidity amongst diabetics is associated with increased nitrogen dioxide concentrations with long term exposure to traffic borne air pollution positively correlating with incidence of type two diabetes and increased mortality among diabetics³¹. Addressing poor air quality within the local authority within the Western Gateway is an important element of their respective climate emergency declarations.
- 5.2.37. Given the projection for an increasing population, and the current dominance of car-usage as the main mode of transport in the region, there is potential that noise levels will increase along major roads. However, more congestion due to increased vehicular traffic may reduce noise levels through reducing traffic speed. Furthermore, hybrid and electric vehicles contribute less to road-traffic related noise, with this trend continuing as uptake increases. A modal shift to sustainable transport modes such as walking, cycling and public transport, will also help to reduce noise levels.
- 5.2.38. As the population increases, there are expected to be a greater number of vehicles on the roads, which could result in an increase in the number of accidents. National Highways has set a target to reduce the number of people KSI on the strategic road network by at least 50% by the end of 2025 against the 2005-2009 baseline, with a clear long-term goal to bring the number of people killed or injured on the network as close as possible to zero by 2040³². The Office for Rail and Road's annual assessment in 2020 reported that this target was met, with an estimated 95% of travel on roads rated at least 3-star in 2019³³. This could help contribute to a reduction in serious road accidents in the Western Gateway.

5.3 ECONOMY

SUMMARY OF CURRENT BASELINE

- 5.3.1. Across the Western Gateway STB region, there are varying levels of working aged population (between 16-64 years). Compared to the national average of 62.9%³⁴, the area of the West of England CA and BCP have a higher proportion of the population of working age (65.5% and 63.1% respectively). The areas of Gloucestershire, Wiltshire, North Somerset, and Dorset all have lower

³¹ Committee on the Medical Effects of Air Pollutants (COMEAP), The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom, 2010. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/304641/COMEAP_mortality_effects_of_long_term_exposure.pdf

³² Highways England (2020) Highways England Delivery Plan 2020-2025. Available online at: https://assets.publishing.service.gov.uk/media/5f3e8f9fe90e072ec4834242/5-year_Delivery_Plan_2020-2025_FINAL.pdf

³³ Office of Rail and Road (2020) Annual Assessment of Highways England End of Road Period 1 2015-2020. Available online at: <https://www.orr.gov.uk/sites/default/files/om/ORR-Annual-Assessment-of-Highways-England-End-of-Road-Period-1-DIGITAL.pdf>

³⁴ Nomis Local Labour Statistics. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1941962903/report.aspx?town=gloucestershire>

proportions of the population of working age when compared to the national average (60.8%, 60.3%, 58.4%, and 56.3% respectively).

- 5.3.2. Job density figures produced by the ONS represent the ratio of total jobs to population aged 16-64. Total jobs include employees, self-employed, government-supported trainees and HM Forces. For example, a job density of 1.0 would mean that there is one job for every resident aged 16 to 64. When job density is considered, the highest ratios (where more jobs exist than the number of working age population) are in West Dorset and Cotswold (both rural areas) followed by Poole and Cheltenham (both smaller affluent urban areas). Those areas with the lowest job ratios include; Weymouth and Portland, and the Forest of Dean.
- 5.3.3. The Western Gateway STB region supports over 1.6 million jobs, with Bristol and South Gloucestershire providing the largest number of jobs in the region, equating to approximately 28% of all jobs available. **Table 5-2** outlines the number of jobs and the job density for local authority areas within the Western Gateway STB region.

Table 5-2 - Job Density and Total Jobs within the Western Gateway STB region

Local Authority	Number of jobs	Job density
Bournemouth, Christchurch and Poole	213,000	0.89
Subtotal	213,000	
Dorset	177,000	0.87
Subtotal	177,000	
Cheltenham	76,000	1.02
Cotswold	52,000	1.04
Forest of Dean	32,000	0.63
Gloucester	69,000	0.85
Stroud	62,000	0.88
Tewkesbury	51,000	0.97
Subtotal	342,000	

Local Authority	Number of jobs	Job density
Bath and North East Somerset	104,000	0.86
Bristol, City of	303,000	0.97
South Gloucestershire	162,000	0.93
Subtotal	664,000	
North Somerset	95,000	0.77
Subtotal	95,000	
Wiltshire	263,000	0.89
Subtotal	263,000	
Grand Total	1,659,000	

- 5.3.4. The majority of the Western Gateway STB region has lower levels of economic inactivity when compared to the UK (21.4%)³⁴. The areas of BCP, Dorset, Wiltshire, Gloucestershire, North Somerset, Bristol and South Gloucestershire all have economic inactivity levels lower than the national average. However, the area of Bath and North East Somerset has an economic inactivity of 22.9%, higher than the rest of the Western Gateway and national figures. In the areas of BCP, North Somerset, Bath and North East Somerset, and Bristol the main reason for economic inactivity is being a student, whereas in Dorset and Gloucestershire the main reason is being retired, and in Wiltshire and South Gloucestershire the main reason for economic inactivity is long term sickness.
- 5.3.5. The unemployment rate in the Western Gateway STB region is lower than the national average (3.9%) across all areas. Unemployment in Bristol is the highest of all areas within the Western Gateway at 3.6%³⁵, followed by BCP at 3.3%, Gloucestershire at 3.1%, North Somerset at 2.6%, Bath and North East Somerset at 2.6%, Dorset at 2.4%, Wiltshire at 2.3%, and South Gloucestershire at 2.3%.
- 5.3.6. The region has a diverse quantity of significant industries³⁵. Gloucestershire, Bath and North East Somerset, Bristol, and BCP's largest industry is Health and social work activities. This sector

³⁵ Nomis Local Labour Statistics. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157348/report.aspx>

includes hospitals, clinics, and social care services, highlighting the importance of healthcare in the local economy. In the areas of North Somerset, Wiltshire, South Gloucestershire and Dorset the largest industry is Wholesale and retail trade; repair of motor vehicles and motorcycles. However, the sectors of Manufacturing, Accommodation and food service activities, Education, and Professional, scientific and technical activities are also large industries across the Western Gateway STB region, highlighting the diversity of the economy within the area and contributing to the region's economic stability.

- 5.3.7. Generally, the population of the Western Gateway STB region is well qualified overall. Within Gloucestershire, 43% of the population have a RFQ³⁶ or equivalent (equivalent to degree or higher degree qualification, in North Somerset this level is 40.8%, in BCP it is 44.5%, Dorset is 37.7%, Wiltshire is 47.7%, and West of England CA is 52%. Comparably, the national average for the attainment of RFQ4 or equivalent is 47.3%. The high level of qualifications amongst the working age population reflects the range and quality of higher education provision across the region, including six universities. However, in total across the Western Gateway STB region, approximately 4.2% of the population have no qualifications³⁵.
- 5.3.8. There are four local authorities within the region that have average weekly pay for full time workers below the national average weekly pay for full time workers of £682.60, Gloucestershire (£668.10), Wiltshire (£669.10), BCP (£674.90), and Dorset (£668.40). Comparatively, the areas of North Somerset (£684.90), Bath and North East Somerset (£690.70), Bristol (£696.30), and South Gloucestershire (£690.80) all have average weekly pay for full time workers above the national average³⁴.
- 5.3.9. Certain areas within the Western Gateway STB region, face higher levels of economic deprivation on account of lower incomes, higher unemployment and limited access to services. These are particularly located in the urban areas of Gloucester, Bristol (in particular, south Bristol), smaller areas of Bath, Weston-Super-Mare, Worle, and Pill (these areas have some of the lowest earnings in the region³⁷), and pockets of BCP.
- 5.3.10. The Western Gateway STB region is generally well connected via road and rail to the South West of the country, including Devon, the Midlands, London and the South East. In particular, the area benefits from two international airports, and passenger and freight port capabilities. This connectivity supports business growth and attracts investment. However, digital exclusion remains a challenge for rural communities across the UK and within the Western Gateway STB region.

FUTURE BASELINE

- 5.3.11. The increasing population in Western Gateway is accelerating the need for the delivery of additional housing, services and infrastructure. Growth in jobs is also anticipated in order to close the gap

³⁶ The RQF (Previously know as NVQ) is a government body that regulates vocational training. These qualifications are made up of units. This provides a flexible way to gain a qualification. Each unit has a credit value which tells you how many credits are awarded when a unit is completed.

³⁷ North Somerset Council, 2020, Employment and Skills Strategy, Available at: [North-Somerset-Employment-and-Skills-Strategy.pdf \(innorthsomerset.co.uk\)](https://www.innorthsomerset.co.uk/Strategy.pdf)

between increases in population and the need for employment. There is a need for improving accessibility to these jobs and training opportunities.

- 5.3.12. During and since the COVID-19 pandemic homeworking has been encouraged for those who are able, leading to a short-term reduction in travel demand. This trend will likely continue as employers look to maintain flexible working conditions in future. In addition, peak periods for traffic congestion are likely to change with less people commuting for work. Public transport will need to adapt to these altered working and lifestyle patterns and encourage more passengers.
- 5.3.13. There is an increasing skills gap and difficulty in recruitment and retaining staff, particularly for labour-intensive or service roles, strategic improvements to transport connectivity from residential areas through infrastructure investments is important to safeguard future economic growth. This is further compounded by green skills gaps, including an estimated 45,000 green jobs required for the West of England CA area to meet net zero ambitions³⁸, with the number of green jobs needed within the Western Gateway STB region anticipated to be higher.
- 5.3.14. With the exception of 2020, the UK's nighttime economy has grown year on year, since 2019, surpassing 2019 levels by about 6%. As this grows, the transport and hospitality sectors will need to adapt to better support employees and visitors.

³⁸ West of England Combined Authority (2021). Green Skills Market Analysis. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2021/07/WECA_Green-Jobs-and-Skills_Phase-2-Report_Final_01_06_2021.pdf

5.4 BIODIVERSITY

SUMMARY OF CURRENT BASELINE

- 5.4.1. There are numerous nationally and locally designated sites within across the Western Gateway STB region including:
- 827 Sites of Special Scientific Interest (SSSI).
 - Nine Marine Conservation Zones.
 - 99 Local Nature Reserves (LNR).
 - 60 National Nature Reserves (NNR).
- 5.4.2. Individual numbers of nationally and locally designated sites have been outlined in **Table B-3 in Appendix B**.
- 5.4.3. In addition to these, there are numerous internationally designated sites within the region, outlined below:
- 22 Ramsar sites.
 - 137 Special Area of Conservation (SAC).
 - 31 Special Protection Area (SPA).
- 5.4.4. The location of these sites is illustrated in **Figures C-10 to C-13 in Appendix C**.
- 5.4.5. The Western Gateway STB region is home to a diverse range of habitats and species which include ancient and semi-natural woodlands, species-rich grasslands, river valleys, heathlands and hedgerows, wetlands and rivers, limestone grasslands, traditional orchards, moors, rhynes (drainage ditches), commons, chalk grasslands, and the Severn Estuary. These habitats support a wide range of species and are crucial for maintaining the area's biodiversity.
- 5.4.6. The Severn Estuary, is afforded the highest level of protection and with the second highest tidal range in the world, supports an average of 74,000 wintering, wildfowl and wading birds each year with its marsh and mudflat habitats. The Severn's mudflats and saltmarshes provide both an overwintering ground and an essential stop-over for passing migratory species³⁹.
- 5.4.7. The Western Gateway STB region is also home to a variety of species, including but not limited to mammals, plants, invertebrates and birds. The region is home to rare plants like the bee orchid (*Ophrys apifera*), great crested newts, migratory and overwintering birds, the stone-curlew, skylark, and lapwing, ground-nesting birds, the rare hazel dormouse and water vole, various butterfly species (such as the marsh fritillary and Duke of Burgundy) bees, and beetles, which are crucial for pollination and ecosystem health.
- 5.4.8. The West of England CA is home to a number of nationally and internationally rare plants. As well as their cultural value, a rich and diverse flora forms part of a resilient and dynamic ecosystem and

³⁹ RSPB, The Severn Estuary. Available at: <https://rspb.org.uk/helping-nature/what-we-do/influence-government-and-business/casework/the-severn-estuary>

supports a variety of wildlife. The Avon Gorge, one of the top three sites for rare plants in England, has more than 30 nationally rare and scarce plants.

- 5.4.9. Pollution, particularly from agricultural runoff and urban areas, could degrade water quality in rivers and wetlands, impacting aquatic species and ecosystems. Air pollution could also affect plant health and soil quality⁴⁰.
- 5.4.10. Natural capital is a key theme in the Government's 25-year Environment Plan: A Green Future⁴¹. The UK's natural capital accounts⁴² show that approximately 20-25 million tonnes of carbon have been sequestered by vegetation in the UK each year between 2007 and 2015, whilst around 1.5 million tonnes of air pollutants have been removed each year. This equates to a monetary value of approximately £1.5 billion for carbon sequestration and £1 billion for pollution removal in 2015. In 2020, air pollution accounted for £2.4 billion of regulating services and led to an estimated 2,001 deaths being avoided and prevented 49,126 life years being lost⁴³. Natural capital therefore has a mitigating effect on the emissions of carbon and air pollutants.

FUTURE BASELINE

- 5.4.11. The 2023 State of Nature Report⁴⁴ highlights the general decrease in biodiversity in the UK. Since 1970, species abundance has decreased by 193% and species distribution has decreased by 135%. Of the 8,431 species that have been assessed using the International Union for Conservation of Nature (IUCN) Regional Red List criteria, 16.15% are currently threatened with extinction from Great Britain and 2% are already extinct. A rising population and associated need for development may cause further loss, fragmentation and degradation of habitats, causing a further decline in biodiversity.
- 5.4.12. As a result of these decreases, the UK is now one of the most nature-depleted countries on Earth. The main causes of these declines from over the last 50 years shows that on land and in freshwater, significant and ongoing changes in the way we manage our land for agriculture, and the effects of climate change, are having the biggest impacts on our wildlife. At sea, and around our coasts, the main pressures on nature are unsustainable fishing, climate change and marine development. The picture in Western Gateway is broadly similar, with declines in species abundance, distribution, and loss of local wildlife sites within the region.

⁴⁰ UK Government, A Green Future: Our 25 Year Plan to Improve the Environment. Available online at: https://assets.publishing.service.gov.uk/media/65fd713d65ca2f00117da89e/CD1.H_HM_Government_A_Green_Future_Our_25_Year_Plan_to_Improve_the_Environment.pdf

⁴¹ A Green Future: Our 25 Year Plan to Improve the Environment (2018) Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

⁴² Office for National Statistics (2019) UK natural capital accounts: Estimates of the financial and societal value of natural resources to people in the UK.

⁴³ Office for National Statistics (2023) UK natural capital accounts: 2022. Available online at: [UK natural capital accounts - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/natural-capital/natural-capital-accounts/2022)

⁴⁴ NBN (2023) State of Nature Report. Available online at: https://stateofnature.org.uk/wp-content/uploads/2023/09/TP25999-State-of-Nature-main-report_2023_FULL-DOC-v12.pdf

- 5.4.13. Development of greenbelt land in particular is likely to encourage less sustainable travel methods (i.e. use of the private car), given these areas are likely to have limited existing transport infrastructure available. This may have knock-on effects on habitats sensitive to air quality and disturbance.
- 5.4.14. Climate change presents another threat to ecosystem services and biodiversity. Current Intergovernmental Panel on Climate Change (IPCC)⁴⁵ predictions for temperature increases are expected to be 2°C by the middle of the 21st century. This increase in temperature is expected to lead to increases in flooding events and northward colonisation of species in the UK, and increase in invasive species. In order to preserve biodiversity and natural habitats, soft engineering and nature-based solutions will need to be used over traditional hard engineering. Northward migration of species is likely to lead to changes in local and regional ecology.
- 5.4.15. The Environment Act 2021⁴⁶ specifies a mandatory 10% increase in biodiversity net gain (BNG) for new developments. This will apply from January 2024 for developments⁴⁷ that fall under the Town and Country Planning Act 1990⁴⁸, and from 2025 for Nationally Significant Infrastructure Projects (NSIPs). Biodiversity on development sites will need to be preserved, with additional mitigation put in to increase biodiversity. This increase in biodiversity may be provided on site enhancement, or through off-site compensation. As part of this, counties are required to undertake Local Nature Recovery Strategies (LNRS). Strategies must agree priorities for recovery and identify the most valuable existing areas for nature, as well as areas which could become of particular importance, or where the recovery or enhancement of biodiversity could make a particular contribution to other environmental benefits.
- 5.4.16. An increase in the number of private vehicles on the roads and associated increases in noise pollution, air pollution, and contaminated surface water run-off, could restrict the ability of existing roadside habitats (including trees) to reduce these impacts. Even with the transition towards electric vehicles, particulate emissions are predicted to be problematic into the future due to the impacts of non-exhaust emissions.
- 5.4.17. However, there is also an increasing trend amongst governments and businesses to be “Future Ready”, which includes addressing issues surrounding biodiversity, resource use, and climate change. Investing in natural capital and delivering resilient nature-based solutions is an effective way of addressing these issues simultaneously. As such, the multiple benefits that arise from taking a natural capital approach significantly contribute to sustainable development, often at lower cost than more conventional infrastructure⁴⁹.

⁴⁵ IPCC (2022) Climate Change 2022: Impacts, Adaptation and Vulnerability. Available at : <https://www.ipcc.ch/report/ar6/wg2/>

⁴⁶ Environment Act (2021). Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

⁴⁷ Unless exempt. The law will apply to small developments from April 2024.

⁴⁸ UK Government, Town and Country Planning Act 1990. Available at: <https://www.legislation.gov.uk/ukpga/1990/8/section/106>

⁴⁹ IPBES (2019) Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Available online at: <https://ipbes.net/global-assessment>

- 5.4.18. The region's diverse habitats would face significant threats without conservation efforts. Ancient and semi-natural woodlands could be fragmented or lost due to unchecked development and agricultural expansion. Species-rich grasslands might be converted to intensive farmland or urban areas, leading to a loss of biodiversity. Wetlands and rivers could suffer from pollution, reduced water quality, and habitat destruction, severely impacting aquatic species. Heathlands and hedgerows, without proper management, could become overgrown or disappear, reducing their role as wildlife corridors.
- 5.4.19. To reverse these trends, the following biodiversity targets have been set by the UK Government in the 2023 Environmental Improvement Plan⁵⁰.
- Halt the decline in species abundance by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042.
 - Protect 30% of our land and sea for nature through the Nature Recovery Network and enhanced protections for our marine protected areas.
- 5.4.20. The Western Gateway STB and its stakeholders all have a role to play in meeting these targets. One of the primary goals is to halt and reverse the decline in wildlife populations by 2030. Gloucestershire recognises that this involves expanding and better managing nature reserves, creating new habitats, and improving existing ones⁵¹.
- 5.4.21. Each of the Local Authorities within the Western Gateway STB region have developed their own initiatives for nature recovery. For example, the Gloucestershire Wildlife Trust aims to increase the land it manages from 1,100 to 1,700 hectares by 2030, supporting ten Nature Recovery Zones around the county⁵². Integrating nature-based solutions to address climate change is a key goal. This includes projects like the Severn Treescapes, which aims to capture carbon and support wildlife through enhanced tree cover.
- 5.4.22. The council aims to create or improve 300 hectares of urban land for people and wildlife, including a new Nature Park in Gloucester. This will provide green spaces for residents and support urban biodiversity. Additionally, North Somerset, Wiltshire, BCP and Dorset are all part of the national Nature Recovery Network, which aims to create a connected landscape that allows wildlife to thrive. This involves mapping and enhancing habitats to ensure they are resilient and capable of supporting diverse species⁵³.

⁵⁰ <https://www.gov.uk/government/publications/environmental-improvement-plan#:~:text=It%20builds%20on%20the%2025YEP%20vision%20with%20a%20new%20plan>

⁵¹ Gloucestershire Wildlife Trust, 2022, Bringing Nature Back: Strategy to 2030, Available at: [220606 Glouc Strategy report 22_web.pdf \(gloucestershirowildlifetrust.co.uk\)](https://www.gloucestershirowildlifetrust.co.uk/22_web.pdf)

⁵² Gloucestershire Wildlife Trust, 2018, Gloucestershire Key Wildlife Sites Handbook, Available at: [Microsoft Word - Gloucestershire Key Wildlife Sites Handbook Part 1 v4.5 final.doc \(gloucestershirowildlifetrust.co.uk\)](https://www.gloucestershirowildlifetrust.co.uk/Microsoft Word - Gloucestershire Key Wildlife Sites Handbook Part 1 v4.5 final.doc)

⁵³ RSPB, The Severn Estuary. Available online at: <https://rspb.org.uk/helping-nature/what-we-do/influence-government-and-business/casework/the-severn-estuary>

- 5.4.23. In Wiltshire, it is anticipated that farmers will be incentivised to adopt practices that enhance biodiversity, such as creating wildflower margins, hedgerow planting, and reducing pesticide use⁵⁴.
- 5.4.24. The West of England Nature Partnership⁵⁵, established in 2012, aims to develop a thriving and well-connected natural environment in the West of England, underpinning a healthy and resilient society and economy. The partnership aims to invest in the delivery of nature recovery projects across the West of England.
- 5.4.25. Additionally, the promotion of soil health initiatives will promote soil conservation techniques, including no-till farming and cover cropping, to improve soil biodiversity and resilience⁵⁶.

5.5 LANDSCAPE, TOWNSCAPE AND SEASCAPE

SUMMARY OF CURRENT BASELINE

- 5.5.1. A National Landscape, formerly known as an Area of Outstanding Natural Beauty (AONB), is a protected area valued for its unique character and beauty. There are five National Landscapes located within the Western Gateway STB region:
 - Cotswolds National Landscape.
 - Mendip Hills National Landscape.
 - Dorset National Landscape.
 - Cranborne Chase National Landscape.
 - Wye Valley National Landscape.
 - North Wessex Downs.
- 5.5.2. The location of the National Landscapes is shown in **Figures C-14 to C-17 in Appendix C**.
- 5.5.3. In 2019 Cranborne Chase became the first National Landscape in the country to be designated in its entirety as an International Dark-Sky Reserve⁵⁷. With only 21 International Dark Sky Reserves in the world, it is one of the best places in the country for stargazing. Dark Sky Reserves are areas that are minimally affected by Artificial Light at Night. This not only makes the starry sky more visible, but has additional benefits for wildlife and human health. There are also dark skies located in both the Mendip Hills and Cotswolds National Landscapes.
- 5.5.4. The Western Gateway falls within a number of Natural England's National Character Areas (NCAs)⁵⁸. These are defined for each local authority area within **Table B-4 in Appendix B** and also

⁵⁴ Wiltshire Council, 2024, Biodiversity, landscape and design, Available at: [Biodiversity, landscape and design - Wiltshire Council](#)

⁵⁵ West of England Nature Partnership. Available at: <https://wenp.org.uk/#:~:text=WENP%E2%80%99s%20Vision%20for%20Nature%20and%20Health%20is%20for%20a%20nature-based>

⁵⁶ West of England Combined Authority (2023), Climate and Ecological Strategy and Action Plan 2023. Available online at: <https://www.westofengland-ca.gov.uk/wp-content/uploads/2023/04/West-of-England-Climate-and-Ecological-Strategy-and-Action-Plan-2023.pdf>

⁵⁷ National Parks UK, Dark Skies, Available at: <https://www.nationalparks.uk/dark-skies/>

⁵⁸ Natural England, National Character Area Profiles. Available at: <https://nationalcharacterareas.co.uk/>

shown in **Figures C-14 to C-17** in **Appendix C**. Additionally, Local Character Areas (LCAs) are also defined for each local authority area within **Table B-4** in **Appendix B**.

- 5.5.5. Although not a landscape designation, there are three areas of Green Belt within the Western Gateway STB region, the Bath and Bristol Green Belt, Cheltenham and Gloucester Green Belt, and South and West Hampshire Green Belt. Over 67% of the Bath and Bristol Green Belt falls within B&NES, South Gloucestershire and Bristol Local Authority boundaries. In North Somerset, the green belt covers 40% of its total land. The Southeast Dorset Green Belt, spans over 30,000 ha. It covers 80% of the Dorset Council area and 20% of the BCP Council area, limiting development to already developed regions. The Cheltenham and Gloucester Greenbelt covers 25.1% of the land in Gloucestershire.
- 5.5.6. The Western Gateway STB region is also home to a unique seascape, with coastal areas in BCP, Dorset, and North Somerset. The UNESCO World Heritage Site of the Dorset and East Devon Coast (also known as the Jurassic Coast), spans 95 miles 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.

FUTURE EVOLUTION OF THE BASELINE

- 5.5.7. Designated landscapes, such as National Landscapes, are given the highest status of protection against development within their boundaries to conserve their landscape and scenic beauty. However, they may still be impacted indirectly through changes to their setting and tranquillity due to increased residential development, traffic flows, change in land use, visitor pressure and light and noise pollution, requiring a balance between development and conservation. The Forest of Dean may encounter climate change challenges like wildfires and species changes. The Severn Vale must address flooding and agricultural sustainability issues.
- 5.5.8. Climate change will also put pressure on landscape and seascape designations as new pests and diseases emerge, sea level rise and extreme weather increase the stresses on nature conservation. Ongoing pressures on public finances and the need to reduce both central and local authority budgets will continue to have a direct impact upon the management of designated landscapes.
- 5.5.9. Despite conservation efforts, Western Gateway's landscape faces threats from climate change (flooding, droughts, vegetation changes, sea level rise), urban expansion (habitat loss, fragmentation), and economic pressures affecting traditional farming and conservation.
- 5.5.10. Landscape, seascape and townscape character and quality are under particular threat from future development (including the construction and operation of transport infrastructure) through, for example, loss of tranquillity, increased lighting, visual intrusion, and the incremental loss of landscape features and characteristic elements.
- 5.5.11. The region also has significant areas designated as green belt, with "a fundamental aim to prevent urban sprawl by keeping land permanently open". While there are areas of great beauty and tranquillity within the area, it is also important to recognise that there are significant parts that are characterised by urban development, major infrastructure and other noise and visual intrusion (including light pollution). This is largely associated with the main Bristol urban area, Bath and the coastal town of Portishead in North Somerset. Expanding populations increase strain on existing systems and recreational landscapes. Greenbelt land limits urban expansion, adding pressure on current land uses.

- 5.5.12. The Western Gateway STB's coastal areas will face challenges from rising sea levels and erosion. Essential adaptation measures include improved sea defences and sustainable coastal management to protect their recreational and ecological value.

5.6 HISTORIC ENVIRONMENT

SUMMARY OF CURRENT BASELINE

- 5.6.1. Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites, which are internationally recognised to be of Outstanding Universal Value. These assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.
- 5.6.2. Heritage assets such as historic parks and gardens, listed buildings, conservation areas and scheduled monuments can foster healthy lifestyles, community cohesion, provide a 'sense of place' and drive economic vitality.
- 5.6.3. There are a number of designated assets within the Western Gateway STB region, including:
- 44,276 Listed Buildings.
 - 2986 Scheduled Monuments.
 - 173 Registered Parks and Gardens.
 - 738 Conservation Areas.
 - 7 Protected Wrecks.
- 5.6.4. There are three different UNESCO World Heritage Sites located within the Western Gateway STB region⁵⁹; the Dorset and East Devon Coast (also known as the Jurassic Coast), renowned for its geology revealing 185 million years of Earth's history, the City of Bath, founded by the Romans as a thermal spa, Bath became an important centre of the wool industry in the Middle Ages, Bath also has a second UNESCO World Heritage designation as Great Spa Towns of Europe, and Stonehenge, Avebury and Associated Sites, among the most famous groups of megaliths in the world. The location of World Heritage Sites within the Western Gateway STB region can be found in **Figures C-18 to C-21 in Appendix C**.
- 5.6.5. The Western Gateway STB region boasts a rich array of heritage assets, including Gloucester Cathedral, Tewkesbury Abbey, and Berkeley Castle⁶⁰, Salisbury Cathedral, and the 16th-century Longleat House⁶¹, Silbury Hill, the largest artificial mound in Europe, and the medieval castle at Devizes.

⁵⁹ UNESCO World Heritage Convention, World Heritage List. Available at: <https://whc.unesco.org/en/list/>

⁶⁰ Gloucestershire County Council, 2024, Request archaeological data from Gloucestershire's Historic Environment Record (HER), Available at: [Request archaeological data from Gloucestershire's Historic Environment Record \(HER\) | Gloucestershire County Council](#)

⁶¹ Wiltshire & Swindon History Centre, 2024, Wiltshire's Historic Environment Record – About to get Even Bigger and Better! Available at: <https://wshc.org.uk/wiltshire-historic-environment-record-to-get-bigger-and-better/>

- 5.6.6. The area also contains a number of protected archaeological sites, including the Neolithic long barrow at Belas Knap, the Roman villa at Chedworth⁶², the Iron Age hillfort at Worlebury Camp, the Roman villa at Gatcombe, prehistoric settlements, medieval structures, Stonehenge and Avebury stone circles, the Iron Age hillfort at Old Sarum and the Roman town of Cunetio.
- 5.6.7. Western Gateway STB also includes several registered parks and gardens of historic interest, such as the gardens at Highgrove House and the parkland at Westonbirt Arboretum, Victorian gardens at Tyntesfield, the landscaped grounds of Ashton Court⁶³, the landscaped grounds of Stourhead, and the gardens at Bowood House⁶⁴.
- 5.6.8. Historic England's Heritage at Risk (HAR) programme helps to understand the overall state of England's heritage sites. It identifies those sites that are most at risk of being lost as a result of neglect, decay or inappropriate development. In total, across the Western Gateway STB region there are 575 sites on the HAR⁶⁵. Individually, in the West of England CA area, there are 44 sites on the HAR register (12 in Bristol, 16 in South Gloucestershire and 16 in Bath and North East Somerset), 8 sites in North Somerset, 11 sites on the HAR in BCP, 208 sites on the HAR register Dorset, 159 sites on the HAR in Wiltshire, and 93 sites on the HAR in Gloucestershire.
- 5.6.9. Local heritage plays an essential role in building and reinforcing a sense of local character and distinctiveness in the historic environment. In addition to the designated assets, the region has a number of non-designated assets that make important contributions to the local historic character.
- 5.6.10. According to Historic England, 'non-designated heritage assets are locally-identified 'buildings, monuments, sites, places, areas or landscapes identified by plan making bodies as having a degree of heritage significance meriting consideration in planning decisions but which do not meet the criteria for designated heritage assets'⁶⁶. In some places non-designated heritage assets are equivalent to designated heritage assets in terms of significance.

FUTURE EVOLUTION OF THE BASELINE

- 5.6.11. Protection of the historic environment is firmly embedded in national and local planning policy, and this has been the case since 1990. However, whilst direct (physical) impacts on designated historical sites are strongly restricted, adverse effects on the setting of designated heritage assets does still occur, for example relating to visual intrusion, or aspects such as traffic, lighting and noise. This can be a sensitive planning issue. Additionally, as outlined in the NPPF⁶⁷, non-designated

⁶² Stephen Crowther and Amanda Dickson, 2016, An Archaeological Survey in the Severn Vale, Gloucestershire: A Highlight Report for the National Mapping Programme, Available at: [Severn Vale NMP: \(historicengland.org.uk\)](https://historicengland.org.uk/severn-vale-nmp/)

⁶³ North Somerset Council, 2015, Sites and Policies Plan Part 1- Development Management Policies, Available at: <https://n-somerset.gov.uk/sites/default/files/2020-02/CC25%20Sites%20and%20Policies%20Plan%20Part%201-Development%20Management%20Policies.pdf>

⁶⁴ Wiltshire & Swindon History Centre, 2024, Archaeology, Available at: <https://wshc.org.uk/our-services/archaeology/information-available/>

⁶⁵ Historic England, Heritage at Risk Register (2023). Available at: <https://historicengland.org.uk/advice/heritage-at-risk/search-register/>

⁶⁶ Historic England, Local Heritage Listing: Identifying and Conserving Local Heritage. Historic England Advice Note 7 (Second Edition) [online] available at: <https://historicengland.org.uk/images-books/publications/local-heritage-listing-advice-note-7/heag301-local-heritage-listing/>

heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

- 5.6.12. Historic England provides specific guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes, set against the background of the National Planning Policy Framework⁶⁷. In addition to the visual setting, 'setting' can also include intangible characteristics such as sound, and historic associations / relationship.
- 5.6.13. The number of vehicles on the roads is likely to increase as Western Gateway STB region's population rises, increasing air pollution and road traffic. This has the potential to impact and degrade the settings of listed buildings, scheduled monuments and parks and gardens.
- 5.6.14. Expansion of roads and the development of new residential and commercial areas, to accommodate the increased number of private vehicles, road traffic, and population increase, will put pressure on land space and could result in land take from historical assets.
- 5.6.15. In addition, climate change poses a significant threat to the historic environment, including undiscovered and undesignated heritage assets. Increased warmth may encourage a rise in the number of invasive plant and animal species, which could change the character of historic and designed landscapes by reducing numbers of or killing off native flora and fauna. Hotter, drier conditions may also increase the risk of fire as well as soil shrinkage, which can lead to building subsidence, structural deformation and building collapse.

5.7 WATER ENVIRONMENT

SUMMARY OF CURRENT BASELINE

- 5.7.1. In a holistic approach to management of water resources and to address the pressures on the water environment, under The Water Environment (Water Framework Directive) (WFD) (England and Wales) Regulations 2017⁶⁸, the UK has been divided into a series of River Basin Districts (RBD). There are three main River Basin Districts within the Western Gateway STB region, South West, Severn and Thames. Within these River Basin Districts, there are a number of Management Catchments⁶⁹:
 - Dorset (South West RBD).
 - Somerset and South West (South West RBD).
 - Avon Hampshire (South West RBD).
 - Avon Bristol and Somerset North Streams (Severn RBD).
 - Severn Vale (Severn RBD).
 - Kennet and Trib (Thames RBD).

⁶⁷ Department for Levelling Up, Housing and Communities, National Planning Policy Framework, 2023 [online] available at: https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

⁶⁸ UK Government (2017) The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 Available at: <https://www.legislation.gov.uk/uksi/2017/407/regulation/1>

⁶⁹ Environment Agency, England River Basin Districts. Available at: <https://environment.data.gov.uk/catchment-planning/>

- Gloucestershire and the Vale (Thames RBD).

5.7.2. Additionally, the Western STB Gateway region encompasses a number of Operational Catchment areas⁷⁰. The WFD sets an objective of aiming to achieve at least 'good' status for all waterbodies by a set deadline specific for each waterbody. Most of the monitored waterbodies are 'main rivers' that are under the jurisdiction of the Environment Agency. These Operational Catchments, alongside their ecological and chemical classifications of the water bodies in these catchments, can be found in **Table 5-3**.

Table 5-3 – Water Quality (Ecological and Chemical)

River Basin Management Catchment	Classification							
	Ecological Status						Chemical Status	
	Total Water Bodies	High	Good	Moderate	Poor	Bad	Fail	Good
Avon Hampshire Management Catchment								
Avon Hampshire	51	0	15	30	6	0	51	0
Dorset Management Catchment								
Poole Harbour Rivers	19 ⁷¹	0	5	8	3	3	19	0
Stour Dorset	38	0	5	18	12	3	38	0
West Dorset Rivers	11	0	2	7	2	0	11	0
Somerset and South West Management Catchment								
Brue and Axe	27	0	1	24	2	0	27	0
Severn Vale Management Catchment								
Avon Bristol and Somerset North Streams	106	0	13	71	22	0	106	0
Severn Vale	48	0	4	35	9	0	48	0

⁷⁰ Operational catchments are a way of grouping Water Framework Directive waterbodies together for the purposes of economic appraisal. Every waterbody has been assigned to an Operational catchment. They are not always hydrologically correct catchments as the river waterbodies may have been grouped based on pressures and measures than hydrology.

⁷¹ No measurements for Stannon Lake Water Body.

River Basin Management Catchment	Classification							
	Ecological Status						Chemical Status	
	Total Water Bodies	High	Good	Moderate	Poor	Bad	Fail	Good
Avon Warwickshire	78	0	1	54	22	1	78	0
Wye MC	51	0	4	33	11	3	51	0
Avon Bristol and Somerset North Streams Management Catchment								
Avon Bristol Rural	73	0	11	46	16	0	73	0
Avon Bristol Urban	14	0	0	11	3	0	14	0
Severn Lower Vale	8	0	1	6	1	0	8	0
Somerset North Streams	11	0	1	8	2	0	11	0
Gloucestershire and the Vale Management Catchment								
Thames Upper	35	0	3	24	7	1	35	0
Kennet and Trib Management Catchment								
Kennet	33	0	7	23	3	0	33	0
Total	603	0	73	398	121	11	603	0

5.7.3. Of the 603 water bodies, just 12% are achieving 'good' ecological status, falling far short of the WFD target for 100%. The percentage of water bodies achieving 'moderate' status was 66%, whilst 20% had 'poor' status and 1.8% had bad status. All water bodies failed based on their chemical status.

5.7.4. The reasons for not achieving good is predominantly due to land management including agriculture, sewage discharge by the water industry, domestic household pollution, and transport pollution, whereby there is pollution from rural areas, towns, cities and transport, and physical modification which change the natural flow of the river⁷².

⁷² Environment Agency, Classifications data for South West River Basin District. Available at: <https://environment.data.gov.uk/catchment-planning/RiverBasinDistrict/8/classifications>

- 5.7.5. National flood zone data correlates with the location of main rivers and ordinary watercourses as areas with the greatest risk of flooding. The government's flood map⁷³ for planning shows that portions of Western Gateway lie within flood risk zones 1, 2 and 3, specifically along statutory main rivers and coastal areas. Levels of flooding and flood risk can be seen in **Figures C-22 – C-25** in **Appendix C**.
- 5.7.6. Each local authority within the Western Gateway STB region has a Local Flood Risk Management Strategy (LFRMS), identifying the risk flooding poses to communities. It is estimated that over 80,000 properties in the Western Gateway STB area are at risk of surface water flooding. Notably, Dorset has the highest number of properties at risk of surface water flooding in the Western Gateway STB region, with 22,300 properties at risk⁷⁴, followed by South Gloucestershire with 21,500 properties at risk⁷⁵.
- 5.7.7. To help mitigate flood risk, the local authorities within the Western Gateway STB region have implemented flood defences. The region has flood defences along the coast that provide a level of protection for those living in coastal areas, as well as flood defences for large rivers. The defences are a mixture of walls, earth embankments and dunes, as well as gates on tidal rivers to prevent high tides from flowing in-land and flooding low-lying areas⁷⁶.

FUTURE EVOLUTION OF THE BASELINE

- 5.7.8. In terms of water quality, the requirements of the WFD should lead to continued improvements to water quality in watercourses. The commitment to clean water has been reiterated in the 2023 Environmental Improvement Plan which comprises a target of restoring 75% of the UK water bodies to good ecological status⁷⁷.
- 5.7.9. However, water quality is likely to continue to be affected by pollution incidents; runoff from urban, transport and agricultural areas; the presence of non-native species; and physical modifications to water bodies.
- 5.7.10. Meeting water supply demand over the next 25 years will be challenging in the South West. Deficits may develop across England by the 2050s due to climate change alone; these would be exacerbated by population growth. If no action is taken between 2025 and 2050, around 3,435 million extra litres of water per day will be needed to address future pressures⁷⁸.

⁷³ Environment Agency, Flood Map for Planning. Available online at: <https://flood-map-for-planning.service.gov.uk/>

⁷⁴ Dorset Council (2014) Local Flood Risk Management Strategy for Dorset (Technical Report). Available online at: [Managing flood risk - Dorset Council](#)

⁷⁵ South Gloucestershire Council, Local Flood Risk Management Strategy 2014-2020 Summary. Available online at: https://consultations.southglos.gov.uk/gf2.ti/-/507586/13304645.1/PDF/-/Summary%20of%20the%20Draft%20SGC%20LFRMS%20Summary%20_Oct%202014_.pdf

⁷⁶ North Somerset Council, Local Flood Risk Management Strategy for North Somerset. Available at: https://n-somerset.gov.uk/sites/default/files/2023-05/CD8.61_Local%20Flood%20Risk%20Management%20Strategy%20for%20North%20Somerset%3B%20Part%20G%20%E2%80%93%20Coastal%20Flood%20Risk%20Awareness.pdf

⁷⁷ HM Government (2023) Environment Improvement Plan 2023. First revision of the 25 Year Environment Plan.

⁷⁸ Environment Agency (2020) Meeting our future water needs: a national framework for water resources – summary. Available online at: [Meeting our future water needs: a national framework for water resources - GOV.UK \(www.gov.uk\)](#)

- 5.7.11. At a regional level, the future implications of climate change projections include: increased coastal and flood-plain flood events leading to damage to property and disruption to economic activity; water shortages; and higher incidence of damage to transportation, utilities, property and communications infrastructure caused by an increase in the number of extreme weather events (e.g. heat, high winds and flooding).
- 5.7.12. The management of flooding is complex, for example; the Environment Agency has a strategic overview of surface water flooding, but the local management of surface water flood risk is the responsibility of local organisations such as Lead Local Flood Authorities or specific wastewater companies on foul sewer flooding matters.
- 5.7.13. The Government has established policy and regulations to ensure that flooding from all sources is managed, clearly setting out the role that each organisation plays and expectations of them. Flood risk management plans help organisations work together to understand where flood risk might occur, enabling them to put in place measures to reduce the risk or to help people respond and to plan for the future.
- 5.7.14. Through their Local Flood Risk Management Strategies and other land and transport planning policies and tools, the LAs will continue to have an active role in promoting sustainable development and ensuring that climate risk, both now and in the future, is understood and managed, with all new development contributing to reduced risks and improved resilience where appropriate.

5.8 AIR QUALITY

SUMMARY OF CURRENT BASELINE

- 5.8.1. Air quality plays an important role in human health. Poor air quality can have large impacts on health through short term exposure, but particularly through long term exposure. According to the World Health Organization (WHO), air quality is one of the greatest environmental risks to human health.
- 5.8.2. Poor air quality also contributes to the deterioration of ecological receptors. Ecosystems are negatively impacted by air pollution, particularly emissions such as sulphur and nitrogen, as it affects their ability to function and grow⁷⁹.
- 5.8.3. Outdoor air quality across the Western Gateway STB region is generally good, however there are a total of 24 Air Quality Management Areas (AQMA)s⁸⁰. The breakdown of these by local authority can be seen in **Table 5-4** below. These are primarily located in the more urban areas and have been designated for exceedances in nitrogen dioxide and in some cases, particulate matter. **Figures C-26 – C29 in Appendix C** shows the location of AQMA)s in the Western Gateway STB.

⁷⁹ UNECE. Air Pollution, Ecosystems and Biodiversity. Available online at: [Air pollution, ecosystems and biodiversity | UNECE](https://www.unep.org/air-pollution-ecosystems-and-biodiversity)

⁸⁰ DEFRA (2024) UK AIR - Air Quality Management Areas (AQMA)s. Available online at: <https://uk-air.defra.gov.uk/aqma/>

Table 5-4 - Current AQMAs

Local Authority	Air Quality Management Area	Date declared	Pollutants
Bath and North East Somerset	Bath	2002 (amended in 2013)	Nitrogen dioxide NO ₂
	Keynsham	2010	Nitrogen dioxide NO ₂
	Saltford	2013	Nitrogen dioxide NO ₂
	Temple Cloud	2018	Nitrogen dioxide NO ₂
	Farrington Gurney	2018	Nitrogen dioxide NO ₂
Bristol, City of	Bristol	2001 (amended in 2011)	Particulate Matter PM ₁₀ Nitrogen dioxide NO ₂
Dorset	Chideock	2007 (amended 2012)	Nitrogen dioxide NO ₂
	Dorchester	2009	Nitrogen dioxide NO ₂
Gloucestershire	Cheltenham	2020	Nitrogen dioxide NO ₂
	Birdlip	2008	Nitrogen dioxide NO ₂
	Lydney	2010	Nitrogen dioxide NO ₂
	Barton Street	2005	Nitrogen dioxide NO ₂
	Priory Road	2005	Nitrogen dioxide NO ₂
	Painswick	2007	Nitrogen dioxide NO ₂
South Gloucestershire	Kingswood - Warmley	2010 (amended in 2015)	Nitrogen dioxide NO ₂
	Staple Hill	2010 (amended in 2012)	Nitrogen dioxide NO ₂

Local Authority	Air Quality Management Area	Date declared	Pollutants
Wiltshire	Westbury	2001	Nitrogen dioxide NO ₂
	Bradford-on-Avon	2001 (amended in 2021)	Nitrogen dioxide NO ₂ Particulate Matter PM ₁₀
	Salisbury City Centre	2007	Nitrogen dioxide NO ₂
	Salisbury Wilton Road	2007 (amended in 2016)	Nitrogen dioxide NO ₂
	Salisbury London Road	2007	Nitrogen dioxide NO ₂
	Marlborough	2011	Nitrogen dioxide NO ₂
	Devizes Shanes Castle	2009 (amended in 2013)	Nitrogen dioxide NO ₂
	Calne	2013	Nitrogen dioxide NO ₂

- 5.8.4. The levels of particulate matter (PM₁₀ and PM_{2.5}) emissions in the Western Gateway STB region are in line with the UK overall⁸¹. The average annual mean for particulate matter in the majority of the Western Gateway area is between 0.003-0.1 unit tonnes/1x1km. There are vast contrasts between rural areas and urban areas where the road network is more concentrated, with < 0.003 unit tonnes/1x1km along parts of the coastline, compared to > 4 unit tonnes/1x1km in the more densely populated areas of Bournemouth, Bristol, Gloucester, Salisbury, Swindon and Bath.
- 5.8.5. These trends are also reflected for levels of NO₂, with levels in more urban area reaching >25 unit tonnes/1x1km of NO₂ compared to <0.01 unit tonnes/1x1km of NO₂ along the coastlines of Dorset and North Somerset⁸¹.
- 5.8.6. 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.

⁸¹ National Atmospheric Emissions Inventory. UK Emissions Interactive Map. Available online at: [UK Emissions Interactive Map \(beis.gov.uk\)](https://uk-emissions.beis.gov.uk/)

FUTURE EVOLUTION OF THE BASELINE

- 5.8.7. The UK Clean Air Strategy outlines plans to reduce emission of pollutants and improve air quality by the year 2030⁸². This will include reductions in public exposure to particulate matter, ammonia, nitrogen oxides, sulphur dioxide, and non-methane volatile organic compounds. However, the 29% increase in road traffic from 1990 and 2018 and 6% increase in GHG emission from 1990 to 2017 is likely to continue.
- 5.8.8. The number of vehicles on the roads is likely to increase as the population rises, putting air quality at further risk of degradation. More severe and frequent heat episodes (associated with the changing climate) can also worsen air quality, and therefore asthma, respiratory diseases and allergic reactions, without further intervention.
- 5.8.9. The UK are continuing to ban the sale of new petrol and diesel vehicles with the new Labour Government set on reinstating the 2030 target⁸³. This will improve air quality, particularly across urban areas, and further the improvements to emissions reductions. Electric and hybrid vehicles are expected to become dominant (with the ban on hybrid vehicle sales in the UK by 2035).
- 5.8.10. Overall, increases in population and urbanisation have the possibility to degrade air quality, while higher standards for air pollutants and vehicle emissions have the potential to improve air quality. These opposing trends may balance each other out in future.

5.9 CLIMATIC FACTORS

SUMMARY OF CURRENT BASELINE

- 5.9.1. In 2022 (the most recent data), an estimated 33% of total greenhouse gas emissions (GHG) in England were from the transport sector⁸⁴. This has decreased around 13% from 109.5MtCO₂e of GHG in 2021, to 95.1MtCO₂e of GHG emissions in 2022.
- 5.9.2. **Table 5-5** shows the breakdown of GHG emissions generated within the Western Gateway STB region compared to regional and national averages. Gloucestershire has the highest levels of GHG emissions at 3,504.2 ktCO₂e and Bath and North East Somerset has the lowest levels of GHG emissions at 717.1 ktCO₂e. However, South Gloucestershire has the highest proportion of transport related emissions at 52%, which is much higher than the regional average of 36% and the national average of 33%.

⁸² Defra (2019) Clean Air Strategy. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf

⁸³ HM Government (2020) Available online at: <https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030>

Table 5-5 - Greenhouse Gas Emissions⁸⁴

	Grand Total (kt CO₂e)	Transport Total (kt CO₂e)	% Transport Total	Per Capita Emissions (tCO₂e)
Bath and North East Somerset	717.1	243.0	34%	3.7
Bristol, City of	1,570.2	529.3	34%	3.3
Bournemouth, Christchurch and Poole	1,265.4	434.7	34%	3.1
Dorset	2,233.8	704.6	32%	5.8
Gloucestershire	3,504.2	1,399.5	40%	5.4
North Somerset	1,136.5	515.3	45%	5.2
South Gloucestershire	1,660.0	857.9	52%	5.6
Wiltshire	3,000.2	1,127.0	38%	5.8
South West Total	29,972.1	10,766.2	36%	5.2
England Total	290,954.6	95,108.2	33%	5.1

5.9.3. The Western Gateway STB region levels of carbon emissions are in line with the UK overall⁸⁵. The average annual mean for carbon dioxide as carbon in the majority of the Western Gateway area is between 10–100-unit tonnes/1x1km. There are stark contrasts between rural areas and urban areas where the road network is more concentrated, with < 1-unit tonnes/1x1km along parts of the

⁸⁴ Gov.uk (2024) UK local authority and regional greenhouse gas emissions statistics. Available online at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

⁸⁵ National Atmospheric Emissions Inventory. UK Emissions Interactive Map. Available online at: [UK Emissions Interactive Map \(beis.gov.uk\)](https://uk-emissions-map.beis.gov.uk/)

coastline, compared to > 1995-unit tonnes/1x1km in the more densely populated areas of Bournemouth, Bristol, Gloucester, Salisbury, Swindon and Bath.

- 5.9.4. During the most recent decade (2009-2018) the UK has been on average 0.3°C warmer than the 1981-2010 average and 0.9°C warmer than 1961-1990. All of the top ten warmest years have occurred since 2002. In the past few decades there has been an increase in annual average rainfall over the UK. The most recent decade (2009–2018) has been on average 5% wetter than 1961–1990 and 1% wetter than 1981-2010⁸⁶.
- 5.9.5. Coastal areas of the Western Gateway STB region in Dorset and North Somerset are vulnerable to coastal erosion. It is estimated that exposed areas of Dorset's coastline such as Studland Bay are eroding at approximately 60cm per year⁸⁷. To combat the risk of erosion, defences such as walls, earth embankments, and sand dunes have been implemented.
- 5.9.6. Urban heat island (UHI) is the phenomenon where temperatures are relatively higher in cities compared to surrounding rural areas. UHI up to 8°C have been felt in UK cities, and concern for excess urban heat are increasing⁸⁸. Heatwaves and increased heat in early summer can lead to additional deaths. With increases in urban heat and climate change, there is potential for further deaths linked to UHI in the urban areas of the Western Gateway STB region.

FUTURE EVOLUTION OF THE BASELINE

- 5.9.7. The UK is committed to legally binding carbon emissions reduction targets of 100% by 2050, compared to the 1990 baseline, as set out in the Climate Change Act 2008⁸⁹. The previous Conservative UK Government adopted a suite of policies in order to reach this target, as set out in two strategy publications; The Net Zero Strategy (2021) and Powering Up Britain: The Net Zero Growth Plan (2023).
- 5.9.8. Alongside this a more ambitious target was set by the UK in 2020 to reduce greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels, as part of its Nationally Determined Contribution towards the Paris Agreement⁹⁰. Currently there is widespread uncertainty as to whether the UK is on track to meet these ambitions, with a new Nationally Determined Contribution due to be set between November 2025 and February 2025⁹¹.

⁸⁶ Met Office, UK Climate Projections: Headline Findings, 2022 Available online at:

https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18_headline_findings_v4_aug22.pdf

⁸⁷ National Trust, Adapting to Coastal Change at Studland Bay. Available at:

<https://www.nationaltrust.org.uk/visit/dorset/studland-bay/coastal-erosion-at-studland-bay>

⁸⁸ Royal Meteorological Society (2017) Urban Heat Islands. Available at: [Urban Heat Islands | Royal Meteorological Society \(rmets.org\)](https://www.rmets.org/urban-heat-islands)

⁸⁹ Climate Change Act (2008) Available online at: <https://www.legislation.gov.uk/ukpga/2008/27/contents>

⁹⁰ Department for Business, Energy and Industrial Strategy (2020) Press Release: UK Sets Ambitious New Climate Target Ahead of UN Summit. Available online at: <https://www.gov.uk/government/news/uk-sets-ambitious-new-climate-target-ahead-of-un-summit>

⁹¹ UK Parliament (2024) The UK's plans and progress to reach net zero by 2050. Available online at: <https://commonslibrary.parliament.uk/research-briefings/cbp-9888/>

- 5.9.9. In 2024, the new Labour Government announced several new bills that are relevant to net zero. These include:
- Great British Energy Bill (to set up a publicly owned clean power company to accelerate investment in renewable energy).
 - Crown Estate Bill (to remove restrictions and allow for easier investment in public infrastructure).
 - Sustainable Aviation Fuel (Revenue Support Mechanism) Bill (to support the production of sustainable aviation fuel).
- 5.9.10. It is currently unknown if and when these Bills will receive Royal Assent.
- 5.9.11. Working towards these targets means changes to technology as well as ways in which people travel. For example, prior to the 26th Conference of the Parties (COP26) Summit in 2021, the UK brought forward its ban on the selling of new petrol, diesel, or hybrid cars from 2040 to 2030. The last decade has seen a remarkable surge in demand for electric vehicles in the UK. The number of licensed ultra-low emission vehicles (ULEVs) in the UK has increased by 71% between the end of March 2021 to the end of March 2022, a jump from 487,000 ULEVs to 833,000 ULEVs⁹².
- 5.9.12. The local authorities within the Western Gateway STB region aim to achieve net zero by either 2030 or 2040. To achieve this, they seek to increase the supply of renewable energy as part of their respective Climate Action Plans.
- 5.9.13. By the end of the 21st century, all areas of the UK are projected to be warmer, more so in summer than in winter. This projected temperature rise in the UK is consistent with future warming globally. Rainfall patterns across the UK are not uniform and vary on seasonal and regional scales and will continue to vary in the future, with significant increases in hourly precipitation extremes⁹³. Both temperature and rainfall the changes will be much larger if greenhouse gas emissions continue to increase.
- 5.9.14. Despite this, the current estimate for temperature increases and changes to rainfall patterns are unlikely to alter significantly in the near future, given the timescales associated with climate change. This being the case, there will be an increasing need to implement climate change mitigation and adaptation measures in light of changing environmental conditions.
- 5.9.15. Sea level rises, coastal erosion, increased storminess and changes in temperatures are key factors to changes in coastlines. Projections for future flood levels indicate that vast areas of the coastline, reaching from Lyme Regis to Christchurch, and Western-super Mare round to Burnham-on-Sea could be below the annual flood level and at risk from sea level rise from the start of the next decade in 2030⁹⁴.

⁹² [Vehicle licensing statistics: January to March 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/vehicle-licensing-statistics-january-to-march-2022)

⁹³ Met Office (2019) UK Climate Projections: Headline Findings. Available online at: <https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp-headline-findings-v2.pdf>

⁹⁴ Climate Central, Coastal Risk Screening Tool. Available online at: [Climate Central | Land below 1.0 meters of water](https://climatecentral.org/land-below-1.0-meters-of-water)

5.10 MATERIAL ASSETS

SUMMARY OF CURRENT BASELINE

Geology and Soils

- 5.10.1. The Western Gateway STB region has a varied and diverse range of soil types, from wet acid loamy and clayey soils to shallow lime-rich soils over chalk or limestone. Development, including transport interventions, pose a risk to soils and soil quality. There is potential for soil loss as a result of developments, as well as the degradation and pollution of soil quality.
- 5.10.2. According to Natural England's Agricultural Land Classification, much of the agricultural land within the Western Gateway STB region is rated good to moderate quality (grade 3). Land in the rural areas surrounding Salisbury, Swindon, Gloucester, and Ilminster are rated very good to excellent (grades 1-2).
- 5.10.3. The geology across the Western Gateway STB region varies but is predominantly comprised of sedimentary bedrock formed between the Jurassic and Palaeogene period. Bedrock geology across Wiltshire is primarily chalk formed during the Cretaceous period. The Jurassic Coast⁹⁵ is internationally renowned and is designated as England's only natural World Heritage Site, inscribed in 2001 for the area's important fossil sites and classic features such as Durdle Door⁹⁵.
- 5.10.4. The Western Gateway STB region is underlain by seven aquifers⁹⁶: Chalk, Lower Greensand, Corallian Limestone, Oolites, Triassic Sandstone, Permian Sandstone, and Carboniferous Limestone. These aquifers provide significant water storage and support water supply and river base flow but are highly vulnerable to pollution. The Triassic Sandstone, covering most of BCP, Dorset, Gloucestershire and Wiltshire can supply up to 125 l/sec of hard to moderately hard water.

Transport Infrastructure

- 5.10.5. The Western Gateway STB region is generally well served with transport connections, between and through the main urban areas. The area as a whole is well connected to the national motorway network and national rail lines, as well as having a strong local public transport network. However, in rural areas, there are constraints to the accessibility of the transport network.
- 5.10.6. Major transport routes include:
 - Sections of the M5, M4, M32, M48, M49, A37, A38, A4, A350.
 - Sections of the Waterloo to Weymouth and the London to Exeter main rail line corridors, as well as direct connections to Birmingham, Manchester, Edinburgh, Liverpool and Cardiff.
- 5.10.7. Bristol, Bath and Chippenham are the most accessible urban centres within the Western Gateway area due to their central location and benefits provided by the M4 and M5 and main line rail network⁹⁷.

⁹⁵ UNESCO, United Kingdom Commission. World Heritage sites. Available online at: [World Heritage Sites – UNESCO UK](https://whc.unesco.org/en/whc-sites/)

⁹⁶ British Geological Survey, Principal Aquifers in England and Wales. Available at: <https://www2.bgs.ac.uk/groundwater/shaleGas/aquifersAndShales/maps/aquifers/home.html>

⁹⁷ Western Gateway Sub-national Transport Body (2019) Regional Evidence Base Part 1 Story of Place.

- 5.10.8. The Western Gateway STB region contains two international airports; Bristol and Bournemouth. Bristol Airport is the largest airport in the South West and one of the top 10 largest UK airports serving a mixture of UK and European destinations. Bournemouth carries approximately 700,000 passengers per year with flights servicing 22 international destinations. However, connectivity to both airports are an issue as there is no direct access from the motorway network.
- 5.10.9. The Western Gateway STB region is also home to three major ports; Bristol, Poole, and Portland. Bristol Port is the UK's most centrally located deep sea port with around 67% of trade undertaken with non-EU countries. One of the most significant trades of the port is that of motor vehicles, with over 700,000 vehicles handled each year. The Port is also an important location for cruise ships departing for destinations such as Northern Europe, Spain and Portugal ⁹⁸.
- 5.10.10. 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.
- 5.10.11. Portland Port is a rapidly expanding port located by the Isle of Portland, Dorset. The port attracts a large number of businesses due to its size and location close to the English channel and continental Europe, particularly attracting agricultural businesses. The Port is also developing its capabilities in handling hazardous cargoes. Additionally, an Energy Recovery Facility (ERF) has been proposed at Portland Port, which would be capable of exporting approximately 15MW of partially renewable low carbon energy⁹⁹.

Waste

- 5.10.12. Majority of the waste within the Western Gateway STB region is treated within Gloucestershire, Wiltshire, Somerset, and Dorset.
- 5.10.13. In the South West, landfill waste dropped from 499,000 tonnes (19.3% of total) in 2018/19 to 106,000 tonnes (4.2% of total) in 2022/23. This is higher than the national average of 10.8% and the highest among reporting regions. This is also highlighted by the higher than national average (41.7%) recycling rates within the Southwest at 48.2%¹⁰⁰.
- 5.10.14. In the South West, 46% of total waste generation is incinerated, 48.6% is recycled/composted, 4.2% is landfilled and 1.2% is disposed of by 'other' methods¹⁰⁰.
- 5.10.15. Household waste recycling rates are higher in the South West than the national average, at 48.2% regionally versus 41.7% nationally, however figures from 22/23 show a drop in recycling rates both regionally and nationally¹⁰⁰.

⁹⁸ 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>

⁹⁹ Powerfuel, Powerfuel Portland is proposing to deliver an Energy Recovery Facility (ERF) at Portland Port in a £150+ million investment. Available online at: [Powerfuel Portland - Energy Recovery Facility at Portland Port](#)

¹⁰⁰ UK Government (2023), Local Authority Collected Waste Management Annual Results. Available online at: <https://www.gov.uk/government/statistics/local-authority-collected-waste-management-annual-results/local-authority-collected-waste-management-annual-results-202223>

5.10.16. In 2020, it is estimated that the UK generated 59.4 million tonnes of non-hazardous construction and demolition waste, of which 55.0 million tonnes was recovered¹⁰¹.

Energy

5.10.17. The local authorities within the Western Gateway STB region aim to achieve net zero by either 2030 or 2040. To achieve this they seek to increase the supply of renewable energy as part of their respective Climate Action Plans.

5.10.18. The Western Gateway STB region has a long history of supporting energy infrastructure, including nuclear and renewables. This is primarily concentrated around Cheltenham, Gloucester and the Severn Estuary, where 65 local nuclear and renewable business can be found⁹⁷.

5.10.19. According to 2023 Regional Renewable Statistics¹⁰², Wiltshire has the most renewable energy installations within the Western Gateway STB region at 13,422, which is primarily made up of photovoltaics (13,390 installations). In comparison, due to Dorset's location on the South Coast, the highest number of onshore wind and hydro installations can be found (26 onshore wind installations and 11 hydro installations)¹⁰².

FUTURE EVOLUTION OF THE BASELINE

5.10.20. Increased development across the Western Gateway STB region is likely to increase pressure upon agricultural land, which could potentially result in the loss of high-grade agricultural land. Transportation infrastructure is also a frequent source of land contamination.

5.10.21. Climate change poses a threat to transport infrastructure in the region. Increasing exposure and likelihood of climate change impacts particularly flooding (ground, surface water and fluvial), extreme heat and cold which could lead to disruption and infrastructure damage. It is likely that there will be a need for increased maintenance of highways and watercourses due to adverse impacts such as slope failure, pathway erosion, increased pothole repair, culvert maintenance and other drainage maintenance such as pipes, ditches and tunnels to accommodate and cope with increased likelihood of intense rainfall events.

5.10.22. Other key impacts include increased flooding and subsidence (i.e. landslips) as well as increased thermal loadings on roads and control equipment. It is evident that increasing adaptation measures (including both engineering solutions and new smarter technologies) are likely to be needed to keep the surface transport system running efficiently regardless of changing weather conditions.

5.10.23. All local authorities within the Western Gateway STB region have set a target of net zero carbon for their council activities by 2030 or 2040, with an overall strategic objective to decarbonise the energy system and increase local renewable energy production.

¹⁰¹ Department for Environment, Food & Rural Affairs (2024) UK Statistics on Waste. Available at: <https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste>

¹⁰² Gov.uk (2023) Regional Renewable Statistics. Available online at: <https://www.gov.uk/government/statistics/regional-renewable-statistics>

- 5.10.1. The growing population and associated need for development are also likely to increase use of mineral resources and waste generation. As such, it will be necessary to apply resource efficiency and waste management measures, including the re-use and recycling of materials.
- 5.10.2. “Taking Charge”¹⁰³, the government’s strategy for electric vehicles, sets out the need for an additional 300,000 electric vehicle charge points by 2030. Western Gateway have also produced an EV Charging Study to support the government’s strategy and identify the current state of EV infrastructure within the STB region¹⁰⁴. Western Gateway’s EV Strategy identifies that the region will need between 55,000 and 75,000 new EV chargepoints by 2035. While charging at home will be a convenient option for many, there is also a need to supplement this with local fast charging stations and charging facilities at destination points e.g. place of work, shopping centres etc.

5.11 ENVIRONMENTAL ISSUES AND OPPORTUNITIES

- 5.11.1. Table 5-6 below presents the environmental issues and opportunities for the SIP, which have been identified from the review of current and future baseline as well as the relevant policy context. These have been set out per SEA topic.

Table 5-6 Environmental issues and Opportunities for the SIP

SEA Topic	Environmental Issues and Opportunities for the SIP
Population and Human Health	<p>Issues</p> <ul style="list-style-type: none"> The population of the STB Local Authorities is predicted to increase both in number and age profile. Substantial quantities of new housing must be delivered in the region across the coming years to meet this increasing requirement and deliver on the Government’s housing requirement. In many cases, this must be delivered in Authorities with large rural areas. Transport issues affect different groups to varying extents, with barriers to accessing and using transport exacerbated by age, ethnicity, income and gender. An increased population will see an increase in demand on services, particularly transport and mobility, with the future implementation of transport policies required to consider how to better respond to the mobility needs of a more diverse, growing and ageing population. Low population density and longer distances in rural areas means that providing cost-effective, regular and convenient public transport is already challenging. Around a quarter of residents of Western Gateway live in such areas.

¹⁰³ HM Government (2022) Taking charge: the electric vehicle infrastructure strategy. Available online at: <https://assets.publishing.service.gov.uk/media/6245ba40e90e075f15381cf0/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf>

¹⁰⁴ Peninsula Transport and Western Gateway (2024) Electric Vehicle Charging Study. Available at: <https://westerngatewaystb.org.uk/wp-content/uploads/2024/03/20240226-Peninsula-and-Western-Gateway-EVReady-Final-v3.pdf>

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> • Lack of phone/internet connectivity in certain areas prevents the use of digital services and increases the need to travel. • Social isolation and loneliness, mental health, obesity, preventable disease, ageing population and disparities between health are challenges affecting communities across the Western Gateway STB region. • Transport availability, particularly public transport, affects wellbeing because it facilitates social connectedness. • Demographic change will require a rethinking of current transport strategies, with new challenges set to arise such as an increasing number of older drivers on the road and more people with dementia using public transport. • With increasing prevalence of mental health conditions, transport systems often come with challenges that exacerbate feelings of anxiety, overwhelm, fear and loneliness. • Sexual assault and violence are the crimes most likely to occur on public transport. • There are areas across the region which have high levels of crime deprivation, particularly in Bristol. • Vulnerable road users such as cyclists and pedestrians are more likely to be traffic accident casualties. • As the population within the Western Gateway STB region increases there are expected to be a greater number of vehicles on the region's roads, which may result in an increase in the number of accidents and those KSI on roads. <p>Opportunities</p> <ul style="list-style-type: none"> • The SIP present opportunities to deliver a more affordable and accessible transport network that helps addressing deprivation and promotes social inclusion. This is a key aim of the Strategic Transport Plan. • New technologies and business models are presenting new transport and travel options. These have the potential to improve the competitiveness of public transport journeys relative to the private car by providing a more seamless travel experience • The SIP should seek to maximise opportunities for improving transport connectivity and resilience in rural areas. • There are opportunities to improve access through transport services, digital services and by bringing services to people. • Mode of transport affects physical and mental health, via mechanisms including physical activity and commuting time and improved quality of life. • Infrastructure should be adapted for groups such as disabled and pregnant women, accessible and addresses anxiety, mental health safety and security related concerns. • Public transport services should include adequate lighting and communication systems (including on board and at stops/stations) and suitable monitoring and maintenance systems. • There are opportunities for the SIP to contribute towards local authorities within the Western Gateway meeting the NPPF requirement for housing development.
Economy	<p>Issues</p> <ul style="list-style-type: none"> • The Western Gateway region is prosperous, with the West of England particularly recognised as the biggest net contributor to the public purse outside of London.

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> • Although the STB contains important centres of economic activity, spatial distribution of economic activity is unequally distributed, being concentrated in economic centres of Bristol and Bath, and major towns in North Somerset. GDP is much higher in Bristol and South Gloucestershire than it is along the south coast. • Western Gateway has several areas and communities that experience poor transport connectivity, especially with respect to corridor connectivity, largely located in rural areas of the STB region. • Health inequalities and barriers to work persist in clusters around the region, with poor transport connectivity aligning to create “double deprivation” in some areas. • Increasing skills gap and recruitment and retention challenges, including in science, technology, engineering and mathematics (STEM), digital, health and social care and construction • Changing work patterns such as remote, internet-based jobs and working from home are likely to reduce the growth of transport demand • The change in working habits has also affected traditional 5/2 day shift patterns with an increase in nighttime working. • Rural communities face ongoing reduction in passenger transport services • Physical connectivity remains poor for many rural areas, with a lack of infrastructure and poor affordability risking creating exclusion. • Behaviour changes, funding and service cuts, increased costs and driver shortages are impacting viability of bus services. • If employment remains more concentrated in urban centres, this could put increased pressure on transport systems as commuting distances increase. • Dorset has a lower working age population than the average and there are high levels of economic inactivity. <p>Opportunities</p> <ul style="list-style-type: none"> • The SIP presents opportunities to attract investment and grow the region’s economy to support regeneration and growth. • Strategic and coordinated action to remove transport-related barriers to employment and education via improved access to economic centres and addressing known areas of deprivation and existing connectivity gaps. • Increase connectivity, particularly North – South, will lead to greater productivity from the existing workforce due to much improved journey times and help to balance out the North-South differential in GDP. • The SIP could help to enhance connectivity to the international gateways, such as major ports and airports in the area and improved connectivity to global gateways.
Biodiversity	<p>Issues</p> <ul style="list-style-type: none"> • There are a number of statutory local, national and international sites designated for nature conservation in the region which may be affected by increased population, transport infrastructure development, and climate change. • The trend in biodiversity decline across the UK shows habitats, and wildlife corridors outside of these protected areas are especially at risk of being lost, damaged or fragmented by transport development.

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> • Secondary impacts of transport networks, such as noise disturbance, air pollution and lighting can have detrimental impacts on biodiversity and species movements. • Though not the key cause, transport networks have contributed to the decline in natural capital, habitat fragmentation, and species decline. • New transport routes will need to be carefully planned so that they do not cause adverse effects on ecosystems with high (potential) ecosystem services provision. <p>Opportunities</p> <ul style="list-style-type: none"> • UK Government objectives of halting biodiversity loss by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042 and to protect 30% of our land and sea also by 2030. • The Local Authorities within the Western Gateway STB are developing, or have developed, Local Nature Recovery Strategies. This provides opportunities for the SIP to work together with these strategies to protect and enhance biodiversity • The SIP presents opportunities to be strategic in the enhancement of biodiversity through recommending the use of green infrastructure (GI) in development arising from the SIP. These can be combined with priorities for wider ecosystems services benefits to deliver landscape wide improvements. • The SIP presents an opportunity to support schemes that promote and implement biodiversity net gain. • Given that ecosystem services are the benefits that nature provides to people, areas of high (potential) provision are often the green and blue spaces close to centres of population, as well as connecting habitats that link these with more remote designated habitats and landscapes. There are opportunities for the SIP to enhance connectivity between these spaces, improving ecosystem services. • Biodiversity and natural capital enhancements can be better planned and delivered when considered at programme level for further development at plan and project level
Landscape and Townscape	<p>Issues</p> <ul style="list-style-type: none"> • Transport infrastructure has the potential to cause direct and indirect impacts on designated landscapes and seascapes, eroding the character and quality of the landscapes and seascapes, increasing pollution and eroding the visual amenity for residents and visitors alike. • Increased development, including transport interventions, poses a serious risk to tranquillity and light pollution through increased population, traffic and visitors. As such, there is a need to protect the special quality of landscapes and seascapes. • Future growth in some locations could risk compromising landscape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and improved socioeconomic outcomes. • Climate change will also put pressure on the landscape and seascape designations as new pests and diseases emerge, sea levels rise and extreme weather increasing the stresses on nature conservation. • Future growth in some locations could risk compromising landscape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and physical and mental health of its people.

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> There is a need to reduce/ limit increases in light pollution and protect Dorset's dark skies. <p>Opportunities</p> <ul style="list-style-type: none"> The design of transport infrastructure requires a landscape-led approach to design, to ensure the best placement and integration of the proposed development into the existing landscape, especially in sensitive locations. Landscape-led designs can help contribute to the climate change agenda, health and wellbeing, and tackling pollution in all its forms (such as air, light and noise). Support of decarbonisation and reduction in the number of cars on the road network, will also help to reduce road traffic noise and air pollution emissions, increasing levels of tranquillity. A clean and well connected transport system can improve access to green spaces hence providing additional benefits in terms of health, well-being and social cohesion.
Historic Environment	<p>Issues</p> <ul style="list-style-type: none"> The Western Gateway region is home to numerous important sites of historic and archaeological interest, including the Jurassic Coast, historic villages and Roman remains in the Cotswolds, white horses in Wiltshire and the World Heritage City of Bath. New and/or upgraded transport infrastructure across the area has the potential to affect the survival, fabric, condition and setting of cultural heritage assets (both above and below ground) through increased noise and visual effects, increased congestion, intensification of existing traffic or the construction of new road or rail, in addition to increased pressure from population growth. Highly significant archaeological remains, whether designated or not, normally require preservation in situ. This clearly has implications and can represent a significant constraint to future scheme design, which should respect, retain and protect the remains (e.g. through avoidance and redesign). Vehicle damage and pollution can adversely affect both listed buildings and scheduled monuments, so reducing vehicle movements within historic urban areas is also an important area to address. There are still significant gaps in our understanding of the historic environment. The use of early assessment and, where necessary, field evaluation, can minimise the risk of encountering unexpected remains during construction. This information can also inform the design of transport schemes and any strategies to mitigate impact on the historic environment. <p>Opportunities</p> <ul style="list-style-type: none"> There are opportunities for enhancing the setting of heritage assets through the development of schemes that reduce traffic noise, limit traffic movements within historic urban areas, and enhance accessibility through active modes. There are opportunities to improve the connections to heritage assets and encourage visitors, improving knowledge and enjoyment of the historic environment.

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> • There are opportunities for good design that is sensitive to the historic environment and seeks to enhance the sense of place, character and experience of the historic environment. • Keeping development within the existing highway boundaries and reprovisioning existing highways for development, may help to reduce the impact heritage assets. • Decarbonisation presents opportunities to reduce the number of vehicles on local roads, reducing the degradation of heritage assets. • Reducing the number of heavy vehicles passing close to heritage assets can reduce their degradation. • Improved access to heritage assets by a clean well connected transport system can foster healthy lifestyles, community cohesion, provide a “sense of place” and drive economic vitality.
Water Environment	<p>Issues</p> <ul style="list-style-type: none"> • The Western Gateway region has a number of important coastal and inland waterways, including the Rivers Severn, Avon and Frome, and coastal ports and basins in Dorset and Bournemouth, Christchurch and Poole. • Road-related pollution, including light, noise, vibration, de-icing salt, dust, particles from wear and tear of tyres and pavements, metals, herbicides, and exhaust emissions (e.g. NO_x, CO and particulates) can affect the water environment. Other effects include habitat fragmentation and vehicle-wildlife collisions)¹⁰⁵. • The physical and chemical quality of water resources is an important aspect of the natural environment and can be adversely affected by pollution associated with surface water runoff from new or existing transport infrastructure, as well as by changes to waterbodies which can affect their quality as a habitat • Of the 603 water bodies, just 12% are achieving ‘good’ ecological status, falling far short of the WFD target of achieving ‘good’ for all water bodies. • Meeting water supply demand over the next 25 years will be challenging in the South West. Deficits may develop across England by the 2050s due to climate change alone; these would be exacerbated by population growth and increasing demand and consumption of resources. • Increased development (including transport infrastructure) can increase flood risk on a local and catchment scale. <p>Opportunities</p> <ul style="list-style-type: none"> • Upgrading existing infrastructure provides the opportunity to improve pollution control, including the reduction of litter and microplastics through mitigation measures. For example, Sustainable Urban Drainage Systems (SuDS), and other nature-based solutions or grey infrastructure to help deliver water quality improvements alongside other co-benefits like attenuating water and flood control.

¹⁰⁵ Phillips et. al. (2021). Spatial Extent of Road Pollution: A National Analysis. Available online at <https://www.sciencedirect.com/science/article/pii/S0048969721006574>:

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> • New transport infrastructure could result in improved drainage, reducing discharge from roads and surface water flooding • The SIP could seek to include schemes that incorporate or retrofit sustainable urban drainage systems (SuDS) and GI requirements within new developments in order to mitigate road-related pollutant run-off, adapt to climate change and counteract flood risk. GI can also reduce surface water runoff and have water quality co-benefits
Air Quality	<p>Issues</p> <ul style="list-style-type: none"> • 24 areas in the Western Gateway region are currently designated as Air Quality Management Areas, these are primarily located in the more urban areas of the STB region. There are also Clean Air Zones in the centre of Bath and Bristol. • Poor air quality is one of the greatest environmental risks to human health. • Reducing air pollution can result in reductions in stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma • Replacing fossil fuel derived electricity with decarbonised electricity will lead to substantial reductions in emissions of NO_x and sulphur dioxide (SO₂) and hence in PM_{2.5} and O₃. • The UK Government's plan to end the sale of all new conventional petrol and diesel cars and vans by 2035 and support for work and home-based electric charging facilities, will promote use of hybrid and electric vehicles, with positive effects for air quality. • However, emissions of non-exhaust particles from friction and abrasion such as from tyre, brake and road surface wear, and the resuspension of road dust, will continue to be a significant source of particulate matter (PM₁₀ and PM_{2.5}) emissions, even from a fully electric vehicle fleet. These emissions could increase if average vehicle mass and numbers were to increase, as it may with larger batteries. • The number of vehicles on the roads is likely to increase as the population rises, putting air quality and AQMAs at further risk of degradation. • Climate change itself is expected to affect air quality in the UK by influencing emissions, atmospheric processing and transport of many pollutants - some of these effects are likely to slow or temporarily reverse improvements in air quality. • More severe and frequent heat episodes as a result of climate change can contribute to the worsening of air quality. <p>Opportunities</p> <ul style="list-style-type: none"> • The SIP should support active travel measures that encourage a shift away from car use to walking, cycling and public transport provide both decarbonisation and improvements in air quality, as well as health benefits that extend beyond improving air quality. • There are opportunities for the SIP to prioritise schemes that will encourage private car users to switch to electric vehicles, by ensuring charging infrastructure is sufficient to meet demand. • The SIP can contribute to the creation of healthy places, streets and communities that promote active transport, improve air quality, and improve road safety.

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> Providing more reliable and efficient journeys will help to minimise the negative impact of congestion and support sustainable growth by enabling efficient movement of people and goods, reducing carbon emissions and engine idling.
Climatic Factors	<p>Issues</p> <ul style="list-style-type: none"> Flooding (tidal and surface water) is a key risk for the region and both property and infrastructure (road and rail). Flooding is set to be exacerbated by climate change and sea-level rise, presenting further risks to properties and infrastructure with increased maintenance required. Transport is the largest contributor to greenhouse gas emissions in the UK at 33% of total emissions and in the Western Gateway STB region with the largest contributor being domestic transport at 38.5%. Most Western Gateway Local and Combined Authority partners have passed resolutions declaring a 'climate emergency'. The differing characteristics of the local authority areas within the region means that the current levels of carbon emissions, their available carbon budgets and trajectories to net zero carbon emissions will differ, and some authorities have the ability and the ambition to move forward at a faster pace¹⁰⁶. There is a high reliance on private transport and high levels of car ownership in rural areas, where around 87% of journeys are made by car¹⁰⁷. Higher per capita emissions in more rural authorities where private car ownership and use is high and necessary due to fragmented transport systems The region can expect to see increased climate hazards including heatwaves, droughts and more frequent adverse weather events including intense rainfall events and flooding, regardless of how successful global policies are in achieving net zero. Climate change has the potential to disrupt operations and damage the transport network, through hazards such as flooding, subsidence, high and low temperatures, and other extreme weather event. There will be an increasing need to implement climate change mitigation and adaptation measures considering changing environmental conditions, including low-carbon and resilient transport infrastructure. New infrastructure schemes need to take account of both embodied and operational emissions at an early strategic stage in decision making. <p>Opportunities</p> <ul style="list-style-type: none"> The Western Gateway STB is committed to delivering decarbonisation.

¹⁰⁶ Western Gateway Sub-national Transport Body. Strategic Transport Plan 2020-2025.

¹⁰⁷ Western Gateway Sub-national Transport Body (2022) South West Rural Mobility Strategy. Available at: <https://westerngatewaystb.org.uk/wp-content/uploads/2024/07/WG-PT-Rural-Mobility-Strategy-Final-Draft-Strategy-v3.pdf>

SEA Topic	Environmental Issues and Opportunities for the SIP
	<ul style="list-style-type: none"> The Western Gateway’s strategic environmental priority in relation to the climate emergency and relating to decarbonisation set out in this transport plan is to reduce carbon emissions to net zero by 2050 at the latest. The SIP presents opportunities to help deliver an increasingly reliable transport network that efficiently manages transport demand and is resilient to climate change. <p>Increasing the resilience of transport infrastructure not only protects the infrastructure itself, but it also improves wellbeing and protects vulnerable groups from being excessively affected by climate impacts.</p>
Material Assets	<p>Issues</p> <ul style="list-style-type: none"> Flooding (tidal and surface water) is a key risk for the region, which is set to be exacerbated by climate change and sea-level rise, presenting risks to properties and infrastructure with increased maintenance required It is important that any future development of the transport network does not have adverse impacts or lead to the degradation or sterilisation of the best and most versatile agricultural land, as this is important for the UK’s self-sufficiency in food production. There is potential for soil loss as a result of developments, as well as the degradation of soil quality. Minerals are a finite resource, and materials will be required for any new transport infrastructure, with subsequent waste produced. There is a continued increase in renewable energy supplies across the region, of which needs to be managed efficiently to ensure the capacity requirements of this transition are met. <p>Opportunities</p> <ul style="list-style-type: none"> The SIP should aim to increase adaptation and resilience measures (including both engineering solutions and new smarter technologies), which are likely to be needed to keep the surface transport system running efficiently The SIP should support the delivery of a transport network with greater use of public transport, powered by decarbonised energy sources. The SIP should encourage the implementation of circular economy principles in developments to reduce waste.

6 SEA APPRAISAL FRAMEWORK

6.1 INTRODUCTION

- 6.1.1. The SEA will identify the environmental, economic and social objectives of the objectives and interventions proposed in the SIP and assess the extent to which these, when judged against reasonable alternatives, will be successful in promoting sustainable development.
- 6.1.2. The iterative SEA process, including consultation with Natural England, Historic England and the Environment Agency, will inform the development of the SIP prior to its adoption.

6.2 PROPOSED SEA APPRAISAL FRAMEWORK

- 6.2.1. The proposed SEA Appraisal Framework and sustainability objectives for the Western Gateway STB's SIP are identified in **Table 6-1** below.

Table 6-1 SEA Appraisal Framework

SEA Topic	SEA Objective	Supporting Appraisal Questions
Population and Human Health	<p>SEA1: To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.</p> <p>SEA2: To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.</p> <p>SEA3: To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.</p>	<p>Will the Western Gateway STB SIP:</p> <ul style="list-style-type: none"> • Reduce deprivation and inequality across the Western Gateway STB region? • Support the provision of everyday services more locally so that people do not have to travel as far - provision physical (fixed), mobile (non-fixed) and digital provision of services? • Improve equality of opportunity amongst all social groups? • Ensure that infrastructure / interventions are conscious of the needs of future population and population growth, including disadvantaged groups and minority communities? • Consider the specific challenges of the region's rural communities? • Encourage healthy lifestyles and reduce health inequalities? • Promote access to health, social, recreational and leisure facilities for all sectors of the community? • Provide and enhance community access to high quality open/green space and nature? • Increase opportunity for active travel? • Ensure that transport users feel safe, particularly after dark? • Improve road safety and reduce the number of people KSI on the roads, particularly children from deprived background?

SEA Topic	SEA Objective	Supporting Appraisal Questions
		<ul style="list-style-type: none"> Improve access for people with disabilities and protected characteristics? Provide opportunities for housing growth within the STB region?
Economy	<p>SEA4: To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.</p> <p>SEA5: To support rural economies, attracting visitors and providing opportunities for prosperity.</p> <p>SEA6: To provide infrastructure that supports future sustainable housing growth</p>	<ul style="list-style-type: none"> Support the nationally important role of the Western Gateway STB economy? Support access to jobs, training and educational opportunities, particularly in rural areas? Improve reliable access to employment centres? Enhance the vitality and resilience of the town centred and retail centres? Improve reliability, accessibility and affordable of transport to access quality work? Ensure that infrastructure and opportunities for work and education keep pace with population growth? Promote good design that enhances the natural and built environment hence fostering healthy lifestyles, community cohesion and economic vitality? Support the movement of essential goods on suitable routes? Support the expected revised housing forecasts/new housing growth?
Biodiversity	<p>SEA7: To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.</p>	<ul style="list-style-type: none"> Contribute towards the target of halting the decline in species abundance by 2030? Contribute to the UK commitment to protect 30% of land and sea for nature by 2030 (30by30)? Avoid impacts on designated and important biodiversity and provide net gains where possible, incorporating the mitigation hierarchy? Protect the integrity of designated sites including enhancement for SSSIs, Local Wildlife Sites and National Nature Reserves? Restore and enhance biodiversity in the region? Encourage opportunities to achieve at least 10% biodiversity net gain on interventions? Prevent habitat fragmentation and promote ecological networks, not prejudicing future improvements to habitat connectivity?

SEA Topic	SEA Objective	Supporting Appraisal Questions
Landscape and Townscape	SEA8: To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	<ul style="list-style-type: none"> • Ensure that the Western Gateway's most valuable landscapes, townscapes and seascapes are conserved and enhanced? • Improve the quality and condition of the townscape and landscape? • Incorporate green infrastructure, natural landscape principles, and/or nature based solutions into design? • Improve access to green spaces hence providing additional benefits in terms of health, well-being and social cohesion. • Incorporate Road to Good Design principles?
Historic Environment	<p>SEA9: To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.</p> <p>SEA10: To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".</p>	<ul style="list-style-type: none"> • Conserve and enhance the significance of buildings and structures of architectural or historic interest, both designated and non-designated? • Improve the quality and condition of the historic environment? • Respect, maintain and strengthen local character and distinctiveness? • Enhance the setting of heritage assets through the development of schemes that reduce traffic noise, limit traffic movements within historic urban areas?
Water Environment	SEA11: To conserve, protect and enhance the water environment, water quality and water resources.	<ul style="list-style-type: none"> • Avoid the potential contamination of waterbodies and watercourses? • Support the protection and enhancement, including ecological and chemical status, of water bodies? • Support green infrastructure development or retrofit SuDS, and other nature-based solutions or grey infrastructure to help deliver water quality improvements alongside other co-benefits like attenuating water and flood control?
Air Quality	SEA12: To protect and enhance air quality by reducing emissions from the transport network.	<ul style="list-style-type: none"> • Reduce the need to travel? • Encourage journeys to be made by sustainable means? • Avoid any adverse effects on air quality and for people exposed to poor air quality? • Improve air quality, particularly in areas of concern such as AQMAs and Clean Air Zones? • Promote and facilitate the use of remote working, active travel, car-sharing, public transport and EVs?

SEA Topic	SEA Objective	Supporting Appraisal Questions
		<ul style="list-style-type: none"> Facilitate expansion and upgrades to existing EV infrastructure?
Climatic Factors	<p>SEA13: Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.</p> <p>SEA14: Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions</p>	<ul style="list-style-type: none"> Ensure transport infrastructure development in areas at risk of flooding, consider the likely future effects of climate change? Increase resilience of the transport infrastructure (new and existing) to the effects of climate change including extreme weather, flooding, heat and cold? Support new developments meeting or exceeding sustainable design criteria, including embodied carbon?
Material Assets	<p>SEA15: To reduce the amount of waste produced and promote sustainable use of resources (including land).</p> <p>SEA16: To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.</p>	<ul style="list-style-type: none"> Avoids the loss of potentially high-grade agricultural land? Minimise loss and negative effects upon geodiversity? Encourage the use of previously developed land? Promote a circular economy or waste minimisation at construction, operation and decommissioning phases? Minimise the loss of land valuable for biodiversity, carbon sequestration, water attenuation or similar? Enable long term use of assets to maximise economic value and minimise waste? Support the transition to renewable energy sources and manage capacity and distribution?

7 NEXT STEPS

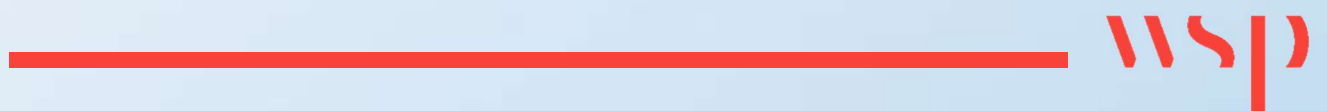
- 7.1.1. Consultation will be undertaken with Natural England, Historic England and the Environment Agency (the SEA Statutory Consultees) on this report for a 5-week statutory period. Once the consultation process is complete and any necessary amendments have been made, a finalised version of this report will be issued.
- 7.1.2. This report represents Stage A of the SEA process. The next step is the assessment stage (Stage B), during which emerging options will be assessed. The timetable for SIP is set out in **Table 7-1**.
- 7.1.3. The SEA report will be available for consultation alongside the draft SIP as it is prepared.

Table 7-1 – SEA and Transport Plan Timetable

Transport Plan Activity	Timeframe
Scoping Consultation	September – November 2024
SEA Assessment	October 2024
SEA Report and SIP Consultation	December 2024 – January 2025
Publication of the SIP and final SEA	Spring 2025
Post Adoption Statement	Summer 2025

Appendix A

REVIEW OF PLANS, POLICIES AND PROGRAMMES



This appendix sets out the policy context for the each of the SEA topics.

Table A-1 – Population & Human Health

Plan, Policy, Programme Name	Key Messages
National	
Equality Act (2010)	<p>The Equality Act legally protects people from discrimination in the workplace and in wider society. It is against the law to discriminate against anyone because of:</p> <ul style="list-style-type: none"> ■ Age ■ Being or becoming a transsexual person ■ Being married or in a civil partnership ■ Being pregnant or having a child ■ Disability ■ Race including colour, nationality, ethnic or national origin ■ Religion, belief or lack of religion/belief ■ Sex ■ Sexual orientation
National Planning Policy Framework (NPPF) (2023) ¹	When delivering new schemes, applicants must avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the UK Government's planning guidance. Applicants should provide evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes.
Department for Transport, Transport for Everyone: an action plan to promote equality (2012)	<p>The Action Plan sets what the UK Government is doing to ensure people from all communities in society have the option to use public transport.</p> <p>The main aim of the report is to '<i>deliver better access to jobs and key services through an accessible and socially inclusive transport system, by removing the barrier to travel and ensuring that social impacts are addressed in policy development and service delivery</i>'.</p>

¹ It should be noted that the NPPF is currently undergoing review. We will ensure to keep reference to the NPPF under review and make updates as when the revised NPPF becomes available.

Plan, Policy, Programme Name	Key Messages
Strong and Prosperous Communities: The Local Government White Paper (2006)	Deliver better public services through involving and consulting users more fully, providing better information about local standards and managing services at neighbourhood level.
Foresight Mental Capital and Wellbeing Project (2008). Final Project report, The Government Office for Science.	As the number of older adults increases substantially in the UK over the next six decades, the existing urban and rural infrastructure will need to be adapted so that the needs of these people are met. For example, issues of access, transport, amenity and security will substantially affect the wellbeing of older people.
Addressing Transport Barriers to work in Low Income Neighbourhoods, Sheffield Hallam University (2017)	<p>Transport is a key factor shaping experiences of poverty. The ability of households in poverty to find paid work often depends on access to affordable, regular and reliable transport.</p> <p>Residents of low-income neighbourhoods generally have a significant reliance on bus services. This can create issues regarding variable frequency, timing, reliability and range of places served.</p> <p>There is considerable evidence that transport issues affect different groups to varying extents and in particular ways, especially in terms of gender.</p> <p>A distinguishing feature of low-income neighbourhoods is the relatively low incidence of motor vehicle ownership. This means that residents have a much higher reliance on public transport than those living in middle and high-income areas.</p> <p>Difficulties in meeting the costs of transport from current incomes have given rise to the concept of 'transport poverty'</p>
Build Back Fairer: The Covid-19 Review (2020)	<p>The Marmot Review identified that the levels of social, environmental and economic inequality in society are damaging health and well-being. This report identifies that as the UK emerges from the pandemic it would be a mistake to attempt to re-establish the status quo that existed before the pandemic.</p> <p>The reductions in car traffic during the pandemic resulted in cleaner air and reduction in emission of greenhouse gases. Walking and cycling as modes of transport became both necessary and desirable. As the pandemic is brought under control and public transport again becomes safe, a future for our cities based on reduction in vehicle traffic and made safe for walking and cycling in addition to public transport is a future we can both imagine and realise.</p> <p>Building Back Fairer requires a sizeable reduction in private car use and greater active travel and use of public transport. Efforts to support this are required urgently and would help to reduce Greenhouse Gas Emissions and lead to a more sustainable environment.</p>

Plan, Policy, Programme Name	Key Messages
Transport for London, Healthy Streets for London (2017)	<p>Although the initial strategy is based in London, the approach is becoming more widely adopted nationally.</p> <p>The Healthy Streets Approach puts people and their health at the centre of decisions about how we design, manage and use public spaces. It aims to make our streets healthy, safe and welcoming for everyone.</p> <p>The Approach is based on 10 Indicators of a Healthy Street which focus on the experience of people using streets. These are as follows:</p> <ul style="list-style-type: none"> ■ Pedestrians from all walks of life ■ Easy to cross ■ People chose to walk, cycle and use public transport ■ Clean air ■ People feel safe ■ Not too noisy ■ Places to stop and rest ■ Shade and shelter ■ People feel relaxed ■ Things to see and do
Fair Society, Healthy Lives: The Marmot Review: Strategic review of health inequalities in England post (2012)	<p>Reducing health inequalities is a matter of fairness and social justice. In England, the many people who are currently dying prematurely each year as a result of health inequalities would otherwise have enjoyed, in total, between 1.3 and 2.5 million extra years of life.</p> <p>Ensure a healthy standard of living for all; Create and develop healthy and sustainable places and communities; and Strengthen the role and impact of ill health prevention.</p>
Streets for a healthy life: A companion guide to Building for a Healthy Life (Issue 02) 2022	<p>Streets for a healthy life document has been prepared to illustrate and explain what good residential streets look like, and how they function. Homes England uses Building for a Healthy Life as its toolkit to guide the design of our schemes, and this document should help us, and our partners, achieve the healthy streets envisaged by the toolkit.</p> <p>In order to ensure all aspects are considered in the design of new streets, this document has been organised around the five principal street functions derived from 'Manual for Streets'. These are:</p> <ul style="list-style-type: none"> ■ Place ■ Movement ■ Access ■ Parking ■ Drainage, Utilities and Street lighting

Plan, Policy, Programme Name	Key Messages
Build Back Fairer: The Covid-19 Marmot Review (2020)	<p>The Marmot Review identified that the levels of social, environmental and economic inequality in society are damaging health and well-being. This report identifies that as the UK emerges from the pandemic it would be a mistake to attempt to re-establish the status quo that existed before the pandemic.</p> <p>The reductions in car traffic during the pandemic resulted in cleaner air and reduction in emission of greenhouse gases. Walking and cycling as modes of transport became both necessary and desirable. As the pandemic is brought under control and public transport again becomes safe, a future for our cities based on reduction in vehicle traffic and made safe for walking and cycling in addition to public transport is a future we can both imagine and realise.</p> <p>Building Back Fairer requires a sizeable reduction in private car use and greater active travel and use of public transport. Efforts to support this are required urgently and would help to reduce Greenhouse Gas Emissions and lead to a more sustainable environment.</p>
National Planning Policy Framework (NPPF) (2023)	<p>Paragraph 96 of the NPPF states:</p> <p><i>‘Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:</i></p> <ul style="list-style-type: none"> <i>a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages</i> <i>b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of attractive, well-designed, clear and legible pedestrian and cycle routes, and high-quality public space, which encourage the active and continual use of public areas</i> <i>c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.’</i>
Chartered Institute of Highways & Transportation (CIHT), Better planning, better transport, better places (2019)	<p>Poorly located and designed new development seriously hinders healthy lifestyles. Physical inactivity directly contributes to one in six deaths in the UK, drives rising levels of obesity, and is the fourth largest cause of disease and disability. It costs society an estimated £7.4 billion a year and places the national healthcare system under increasing financial strain.</p> <p>By enabling compact, higher density, and mixed-use patterns of development. This encourages more people to incorporate physical activity into their daily journeys, improving productivity and dramatically reducing ill health.</p>

Plan, Policy, Programme Name	Key Messages
Transport, health and wellbeing: An evidence review for the Department for Transport (2019)	<p>There are three main mechanisms that link transport and health and wellbeing:</p> <p>Transport and access: Transport plays a key role in improving access to health services, particularly for vulnerable groups</p> <p>Mode of transport: Mode of transport affects physical and mental health, via mechanisms including physical activity and commuting time</p> <p>Wider effects of transport and infrastructure: Transport can facilitate social interactions and promote social inclusion.</p>
National Networks National Policy Statement (NN NPS) (2024)	<p>Paragraph 4.57 states that “<i>Highways developments provide an opportunity to make significant safety improvements and significant incident reduction benefits when they are well designed. Some developments may have safety as a key objective, but even where safety is not the main aim of a development, the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate. Consideration should also be given to wider transport objectives, including expanding active travel, and creating safe and pleasant walking, wheeling and cycling environments. In developing roads schemes the applicant should have due regard to the needs of drivers and riders and the imperative to ensure road user safety</i>”.</p>
National Highways Delivery Plan 2020-2025 (2020)	<p>Although there has been an ongoing reduction of people Killed or Seriously Injured (KSI) on UK roads has generally been declining since 2005, over the last few years the number of fatalities has remained fairly consistent with a small increase in KSIs in 2013.</p> <p>National Highways recognise that they must continue to improve safety by investing in the road network, both to prevent incidents from occurring and to reduce the severity of those that do.</p> <p>By the end of 2025, they aim to continue to reduce the number of KSIs on the Strategic Road Network to support a decrease of at least 50%, against the 2005-2009 average baseline.</p>
Network Rail, Our Delivery Plan for Control Period 7 (2024 – 2029)	<p>Over the next five years Network Rail will continue to invest in keeping passengers and the public safe – on trains, at stations, using level crossings and around our network – as well as keeping our workforce safe and healthy. The key safety objectives for the next five years include:</p> <ul style="list-style-type: none"> ■ Reduce passenger safety risk ■ Reduce health and safety risk to our workforce ■ Reduce public safety risk ■ Effectively control threats to railway security
Public Health England, Health Matters, Physical Activity: Prevention and management of long-term conditions	<p>Regular physical activity provides a range of physical and mental health and social benefits, including:</p> <ul style="list-style-type: none"> ■ Reducing the risk of many long-term conditions ■ Helping manage existing conditions ■ Ensuring good musculoskeletal health ■ Developing and maintaining physical and mental function and independence

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ Supporting social inclusion ■ Helping maintain a healthy weight ■ Reducing inequalities for people with long-term conditions <p>The CMOs' Physical Activity Guidelines state that for good physical and mental health, adults should aim to be physically active every day. Any activity is better than none, and more is better still. Regular physical activity can help to prevent and manage a range of chronic conditions and diseases. many of which are on the rise and affecting people at an earlier age.</p>
Noise Policy Statement for England (2010)	The long-term vision for the Noise Policy Statement for England is to “promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.”
Local	
West of England Combined Authority Business Plan 2024 - 2025	<p>The plan's vision is to:</p> <p>‘Be a driving force for clean and inclusive economic growth in the West of England to ensure that people benefit from more job opportunities, a stronger economy and a high quality of life’.</p> <p>The West of England Combined Authority has developed six core organisational priorities to implement their vision for the region:</p> <ul style="list-style-type: none"> ■ People Create West of England sustainable transport ■ Tackle the climate and ecological emergency ■ Secure decent jobs and training ■ Make the West of England an amazing place to call home ■ Put the West of England on the map for national and global success ■ Improve our organisational capacity to delivery for our communities and our businesses.
West of England Cultural Plan	<p>The plan's vision is to:</p> <p>‘create a region which is an international exemplar of the power of culture to transform and enrich lives, places and businesses’. The plan identifies four areas of focus:</p> <ul style="list-style-type: none"> ■ Cultural and creative skills ■ Creative freelancers, start-ups and SMEs ■ Placemaking ■ Wellbeing

Plan, Policy, Programme Name	Key Messages
West of England Combined Authority Housing Delivery Strategy 2020-2030	The West of England Combined Authority Housing Delivery Strategy's aims to through 'driving housing delivery, the Combined Authority will create sustainable, well-designed, attractive and healthy places that deliver economic benefits and community resilience, support clean, inclusive growth and respond to the climate and biodiversity emergencies.
Bath and North East Somerset Corporate Strategy 2023-2027	<p>The Corporate Strategy is Bath and North East Somerset Council's overarching strategic plan. Core ambitions at the centre of the Strategy include:</p> <ul style="list-style-type: none"> ■ Preparing for the future - to work towards a resilient, sustainable economy that is fair, green, creative and connected ■ Delivering for local residents - to continually improve frontline services across communities, whilst protecting the most vulnerable ■ Focusing on prevention - to invest in prevention across all services to tackle inequalities and improve local areas.
Bristol City Council Corporate Strategy 2022-2027	<p>The Corporate Strategy outlines a vision of driving an inclusive, sustainable and healthy city of hope and aspiration where everyone can share the city's success. The Corporate Strategy's main priorities are informed by 5 key principles that influence everything we do:</p> <ul style="list-style-type: none"> ■ Development and delivery ■ Environmental sustainability ■ Equality and inclusion ■ Resilience ■ World-class employment
Dorset Council's Plan 2020-2024	<p>The Council's Plan includes a section on Strong, Healthy Communities and sets out ways in which they will help to work with residents and partners to build a maintain strong communities where people get the best start and live fulfilling lives. These actions include:</p> <ul style="list-style-type: none"> ■ Work to improve the economic, social and environmental wellbeing of the area ■ Support communities to be cohesive, inclusive, safe and active ■ Enable people to feel a sense of belonging and to participate actively in their community ■ Aim to increase people's healthy life expectancy and reduce differences between areas ■ Work to give residents the same opportunities to live well no matter where they live or what their circumstances are ■ Provide additional support to communities with the greatest challenges ■ Keep Dorset connected with better transport and digital links between communities
South Gloucestershire Council Plan 2024-2028	<p>Goal 2 of the plan aims to help reduce inequalities which includes</p> <ul style="list-style-type: none"> ■ Improving access to health, education and skills services ■ Tackling the root cause of crime ■ Ensure people get the financial help they need ■ Improve access to secure affordable homes and address homelessness



Plan, Policy, Programme Name	Key Messages
	<p>Goal 4 of the plan aims to support wellbeing and independence in the council's communities which includes:</p> <ul style="list-style-type: none"> ■ Improve health and wellbeing for everyone ■ Build strong, age-friendly communities ■ Provide better support for service users and carers ■ Protect the most vulnerable
South Gloucestershire Tackling Inequalities Plan 2024-2028	The council outlines ten priorities within the Tackling Inequalities Plan, one of the priorities centres around accessibility, including digital inclusion, transport, the built and natural environment and access to the wider economy.
Bath and North East Somerset, Swindon and Wiltshire Partnership, 2021-2024	The vision of this plan is to 'work in partnership to tackle inequalities across the life course to ensure that every resident of Bath, North East Somerset, Swindon, and Wiltshire can live longer, healthier, happier lives'.
West of England Joint Green Infrastructure Strategy 2020 – 2030 and Action Plan (2020 – 2023)	<p>The Strategy aims to:</p> <p>'address inequalities in the provision of green infrastructure and health, achieve well designed, attractive and health places that deliver economic benefits and community resilience and respond positively to the climate and ecological emergency'.</p>
West of England Cycling and Walking Infrastructure Plan 2020 - 2036	The Cycling and Walking Infrastructure Plan forms part of the West of England's wider plans and ambitions for creating and improving active travel. The Plan aims to provide high quality infrastructure to support the region's transition to walking and cycling becoming the preferred choice for shorter trips and improving access to public transport.
Integrated Care Strategy (Bath and North East Somerset, Swindon and Wiltshire together) (BSW Together)	The Integrated Care Strategy sets out BSW 'Together's' ambition as partners working across the health, social care, voluntary and other sectors to support the people of BSW to live happier and healthier for longer.
Bath and North East Somerset Joint Health and	The vision for the Strategy is:

Plan, Policy, Programme Name	Key Messages
Wellbeing Strategy and Implementation Plan	<p>‘Together we will address inequalities in Bath and North East Somerset so people have the best start in life, live well and age well in caring, compassionate communities, and in places that make it easier to live physically and emotionally healthy lives.’ It is a seven-year strategy that sets out four priorities for improving health and wellbeing and reducing inequalities for the local population. It also identifies the approaches that will be taken to address them. The four priorities are:</p> <ul style="list-style-type: none"> ■ Priority 1: Ensure that children and young people are healthy and ready for learning and education ■ Priority 2: Improve skills, good work and employment ■ Priority 3: Strengthen compassionate and healthy communities ■ Priority 4: Create health promoting places
Keep Bristol Cool: A Framework for Urban Heat Resilience	<p>The Bristol One City Climate Strategy recognised the urgent need to prepare a local management plan to address urban heat risks, and to investigate the impact of extreme heat on the city to fill a critical data and knowledge gap. This council-led framework is a fulfilment of these recommendations addressing five aims:</p> <p>The Framework includes five aims:</p> <ul style="list-style-type: none"> ■ Building a common understanding of Bristol’s urban heat risks ■ Supporting decision-makers through a new evidence base ■ Setting objectives for delivering urban heat resilience across priority themes ■ Maximising co-benefits through a joined-up response to climate resilience, net zero and nature recovery ■ Advocating for wider action across the city
Bristol Joint Local Health and Wellbeing Strategy 2020-2025	<p>The vision for the Local Health and Wellbeing Strategy is:</p> <p>‘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.’ To achieve this vision, five themes have been identified:</p> <ul style="list-style-type: none"> ■ Healthy childhoods ■ Healthy bodies ■ Healthy minds ■ Healthy places ■ Healthy systems
Food Equality Strategy for Bristol 2022-2032 and Action Plan	<p>The aim of the Food Equality Strategy is to strive for food equality for all residents in the city of Bristol within ten years.</p>

Plan, Policy, Programme Name	Key Messages
North Somerset Council Joint Health and Wellbeing Strategy 2021-2024	<p>The Strategy and accompanying action plan are centred around three main approaches to improving health and wellbeing and reducing health inequalities in North Somerset:</p> <ul style="list-style-type: none"> ■ Prevention - prevent people from becoming unwell or experiencing poor health and wellbeing ■ Early intervention - support people to identify and manage health and wellbeing problems as early as possible. Ensure sure support is in the right place to address those problems ■ Thriving communities - focus on the wider factors and influences on health, and work with partners to support communities to thrive
North Somerset Physical Activity Strategy 2023-2038	<p>The shared vision for the Strategy is that: “Every person has the opportunity to get moving, be active, and enjoy a healthier life in their local community. The strategy is based on four shared outcomes:</p> <ul style="list-style-type: none"> ■ Active Places ■ Active Communities ■ Healthy People ■ Partnerships and Working Together
North Somerset Council Active Travel Strategy 2020-2030	<p>The vision for the Strategy is to: ‘Make walking and cycling the natural choice for a cleaner, healthier and more active North Somerset.’ This is supported by four key objectives:</p> <ul style="list-style-type: none"> ■ Deliver safe and frequent active travel to enable improved public health ■ Tackle the Climate Emergency ■ Drive local economic development ■ Shape active travel neighbourhoods through planning
South Gloucestershire Health and Wellbeing Strategy 2021-2025	<p>South Gloucestershire’s Joint Health and Well-being Strategy (JHWBS) 2017-21 sets out key areas of focus and actions to reduce health inequalities and improve the health and well-being of people living and working in the area. The strategy targets four key health and well-being issues which are to:</p> <ul style="list-style-type: none"> ■ Improve educational attainment of children and young people, and promote their wellbeing and aspirations ■ Promote and enable positive mental health and wellbeing for all ■ Promote and enable good nutrition, physical activity and a healthy weight for all ■ Maximise 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	<p>This strategy has been developed based upon the evidence of need and has enabled the board to focus on four thematic areas where it can have its most impact, ensuring everyone has access to the opportunities and services. The Strategy has four guiding themes:</p> <ol style="list-style-type: none"> 1 improving social mobility and tackling inequalities 2 prevention and early intervention

Plan, Policy, Programme Name	Key Messages
	<p>3 localisation and connecting with communities</p> <p>4 integration and working together</p>
Wiltshire and Swindon Sport, Health and Wellbeing Strategy 2023-2025	<p>The aim of this strategy is to support and encourage people to move more and be active every day, whether that be at home or taking part in the various opportunities available across the county. It identifies that Barriers and inequalities prevent many people from being active and so we want to understand and remove these barriers and reduce health inequalities in participation, access, and achievement.</p> <p>The Strategy has three key priorities:</p> <ul style="list-style-type: none"> ■ Priority 1: Tackling health inequalities through increased physical activity ■ Priority 2: Supporting people to move more to maintain good health ■ Priority 3: Encouraging people to live longer better
Dorset National Landscape Management Plan 2019-2024	<p>The Dorset Area of Outstanding Natural Beauty Partnership is working towards a future in which the management of the landscape and designation is the best example of how protected landscapes can stimulate truly sustainable development and land management. The vision for the community of the National Landscape:</p> <ul style="list-style-type: none"> ■ sustainable rural communities are thriving and housed affordably, enjoying a range of health and wellbeing benefits afforded by a wonderful environment ■ there is a range of active travel options and wide access to the countryside ■ the landscape's natural and cultural heritage is the basis for a wide range of education, learning and volunteering opportunities for all ages; it inspires ongoing research and artistic endeavour
BCP Council (2021) Empowering Communities - BCP Council's VCS and Volunteer Strategy	<p>The Strategy's vision is:</p> <p><i>'Our vision is to ensure that Bournemouth, Christchurch and Poole is a vibrant, connected community which provides meaningful opportunities for volunteering and social action, and empower a thriving voluntary and community sector to help support community needs.'</i></p> <p>BCP Council has developed six priorities to implement this vision:</p> <ul style="list-style-type: none"> ■ Build effective partnerships and working relationships that support stronger connected communities. ■ Extend the council's services by building capacity through specialist partners. ■ Learn from the COVID-19 community response and embrace new ways of working. ■ Help people to connect with their communities. ■ Support community-led approaches to build resilient communities. ■ Focus on early intervention and prevention to support people to avoid crisis.

Plan, Policy, Programme Name	Key Messages
BCP Council (2020) BCP Early Help, Family Support and Young People's Strategy 2020-2023	<p>The Strategy's vision is: 'Caring for our children and young people; providing a nurturing environment, high quality education and opportunities to grow and flourish.'</p> <p>BCP Council has developed four objectives to implement this vision:</p> <ul style="list-style-type: none"> ■ provide the right help and support to children and families as early as possible and at the right time ■ build resilience in families ■ develop and provide innovative ways to support readiness for school across each phase ■ reduce risks for our young people who are identified as being at risk of going missing and or of child exploitation
Dorset Council (2023) Accessibility strategy 2022 to 2025	<p>The Strategy sets out a vision for children and young people with disabilities and what Dorset Council will do to help make our schools and educational settings more accessible for them.</p> <p>The key priorities of the Strategy are:</p> <ul style="list-style-type: none"> ■ Increase the extent to which children and young people with disabilities can take part in the curriculum ■ Improve the physical environment of schools and other education settings so that children and young people with disabilities can take advantage of the education, benefits, facilities, and services offered ■ Improve the delivery of information for children and young people with disabilities within schools and other education settings ■ Work with the wider council, partner agencies and the voluntary and community sector to: <ul style="list-style-type: none"> — raise awareness of barriers to accessibility — promote equity of opportunity for children and young people with disabilities encourage building good relationships between children and young people who are disabled and those who are not
Dorset Council (2023) Children, Young People and Families' Plan 2023 to 2033	<p>The Dorset Strategic Alliance for Children and Young People is a multi-agency partnership which brings together senior people from the council, police, health, fire and rescue services, schools, early years settings and the voluntary and community sector to shape and transform services for children and young people that achieve improved outcomes.</p> <p>The Plan's vision is: <i>"We want Dorset to be the best place to be a child, where communities thrive, and families are supported to be the best they can be."</i></p> <p>The partnership shares a set of values and is committed to working together and with children, young people, and their families in the following ways:</p> <ul style="list-style-type: none"> ■ always putting children and families at the heart of everything we do – including in how we develop and shape services ■ no child or family left behind – we strive for equity of outcomes for all ■ focus on early intervention and prevention – offering the right help, in the right place at the right time ■ working restoratively – doing things with families, not to or for them ■ thinking family – providing a joined-up approach ■ focusing on and building on the strengths within individual, families, and communities ■ being inclusive – challenging discrimination where we see it and promoting a sense of belonging for all our children in our communities ■ taking a rights-based approach to our work

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ delivering best value for money – spending the Dorset £ in Dorset on the things that get the best outcomes for children and families ■ remaining hopeful and determined to achieve good outcomes for all
Dorset Council (2023) Commissioning for A Better Life as People Age in Dorset 2023 to 2028	<p>This Strategy sets out three outcomes:</p> <p>Outcome 1</p> <ul style="list-style-type: none"> ■ Dorset is a great place to grow older, with a range of vibrant community activity, giving people better days whether they have support needs or not, and keeping them well connected to the people around them and where they live. <p>Outcome 2</p> <ul style="list-style-type: none"> ■ People have access to excellent care and support in their home, both responsive short-term reablement and longer-term care, which always puts independence at its heart and helps people to continue to live independently for as long as possible, utilising equipment and assistive technology where appropriate. <p>Outcome 3</p> <ul style="list-style-type: none"> ■ A good range and choice of residential care is available, in high quality, modern homes, to meet the increasingly complex needs of the local older population.
Dorset Council (2023) Commissioning for A Better Life for Adults in Dorset 2023 to 2028	<p>This Strategy sets out a broad context for all of our work to develop the system of care and support in Dorset, for adults with both short- and long-term needs for additional support.</p> <p>This Strategy sets out six outcomes:</p> <p>Outcome 1</p> <ul style="list-style-type: none"> ■ Communities are resilient, vibrant and inclusive through working in partnership with the voluntary and community sector, and provide natural circles of support for people's independence and wellbeing. <p>Outcome 2</p> <ul style="list-style-type: none"> ■ People can easily access a range of local community based resources which support their health and wellbeing, including high quality and consistent information, advice and guidance when they need it. <p>Outcome 3</p> <ul style="list-style-type: none"> ■ People have ready access to a range of technology options that can support their independence and their ability to receive long-term care in ways that work best for them. <p>Outcome 4</p> <ul style="list-style-type: none"> ■ People are supported to manage their own care through the use of direct payments and individual service funds, with a vibrant marketplace from which they can choose and buy their support. <p>Outcome 5</p>

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ People have choice and control over their lives, including where they live, how they spend their days, and how they are supported when they need it. <p>Outcome 6</p> <ul style="list-style-type: none"> ■ People have access to high quality support services appropriate to their needs, which promote both their safety and their independence, and work together well to support them through important transitions in life, including from birth to settled adulthood, and later into older age.
Gloucestershire Joint Health and Wellbeing Strategy, 2019 - 2030	<p>This Joint Health and Wellbeing Strategy provides an excellent opportunity to focus on those areas where a collective, system wide approach can help to improve the health and wellbeing of the population of Gloucestershire.</p> <p>The overall vision for Gloucestershire is – ‘Gloucestershire is a place where everyone can live well, be healthy and thrive’</p> <p>Key priorities to support this vision includes:</p> <ul style="list-style-type: none"> ■ Physical activity- to make being physically active the social norm, and get 30,000 inactive people in Gloucestershire active ■ Adverse childhood experiences- to build resilient communities and organisations that take action to prevent the potential lifelong impacts of adverse childhood experiences ■ Mental wellbeing- For every Gloucestershire resident to enjoy the best possible mental health and wellbeing throughout their life. ■ Social isolation and loneliness- to enable local people to build and nurture strong social networks and vibrant communities. ■ Healthy lifestyles- aim to halve the level of childhood obesity in Gloucestershire and reduce the gap in obesity rates between the most and least deprived parts of the county. ■ Early years and best start in life- to ensure that every child in Gloucestershire has the best start in life. ■ Housing- to improve the quality, affordability, availability and suitability of housing

Table A-2 – Economy

Plan, Policy, Programme Name	Key Messages
National	
National Planning Policy Framework (NPPF) (2023)	<p>Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. Planning policies should:</p> <ul style="list-style-type: none"> a) Set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration b) Set criteria, or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period c) Seek to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment d) Be flexible enough to accommodate needs not anticipated in the plan, allow for new and flexible working practices (such as live-work accommodation), and to enable a rapid response to changes in economic circumstances
The Enterprise Act (2016)	<p>The Enterprise Act includes measures to:</p> <ul style="list-style-type: none"> ■ Establish a Small Business Commissioner to help small firms resolve issues ■ Extend the Primary Authority scheme to make it easier for businesses to access tailored and assured advice from local authorities, giving them greater confidence to invest and grow ■ Protect and strengthen apprenticeships by introducing targets for apprenticeships in public sector bodies in England, and establish an Institute for Apprenticeships – an independent, employer-led body that will make sure apprenticeships meet the needs of business
Build Back Better: our plan for growth (2021) ²	<p>Build Back Better: our plan for growth' set out the previous government's plans to support growth through significant investment in infrastructure, skills and innovation, and to pursue growth that levels up every part of the UK, enables the transition to net zero, and supports our vision for Global Britain.</p>
The Clean Growth Strategy (2018)	<p>This Strategy set out a comprehensive set of policies and proposals that aim to accelerate the pace of “clean growth”, i.e. deliver increased economic growth and decreased emissions.</p>

² The new UK government plans to drive growth around the following key policies and strategies: Devolution; Industrial Strategy; Green Prosperity Plan; Planning Reform; and a 10-year Infrastructure Strategy compressing and Automotive Strategy, Bus reform / Better Buses Bill and, Rail (High Speed Rail Bill)

Plan, Policy, Programme Name	Key Messages
	<p>The key policies and proposals include:</p> <ul style="list-style-type: none"> ■ Accelerating Clean growth ■ Improving Business and Industry Efficiency – 25% of UK Emissions ■ Improving Our Homes – 13% of UK Emissions ■ Accelerating the Shift to Low Carbon Transport – 24% of UK Emissions ■ Delivering Clean, Smart, Flexible Power – 21% of UK Emissions ■ Enhancing the Benefits and Value of Our Natural Resources – 15% of UK Emissions ■ Leading in the Public Sector – 2% of UK Emissions ■ Government Leadership in Driving Clean Growth.
National Highways, Strategic Business Plan 2020-2025	<p>The plan sets out how National Highways will invest over £14.2 billion in enhancements schemes across the next five years, providing a benefit of £27 billion to customers, local communities and the wider economy. These benefits will come from improved journey times and access to employment and housing developments.</p>
Local	
Western Gateway Economic Connectivity Study (2019)	<p>The Western Gateway economic connectivity study was included in its Regional Evidence Base which was submitted to the Department of Transport in July 2019 in response to the Government's request to identify our Sub-national priorities for the major road network over the period of 2020 to 2025.</p> <p>It identified 15 strategic travel corridors which link strategically important locations across the Western Gateway STB area, including the main urban centres, ports and airports.</p> <p>The corridors identified either traverse multiple authorities within the Gateway area or provide strategic linkages to neighbouring areas from which the Gateway area will benefit.</p> <p>The 15 corridors were identified according to their existing status or function (such as linking the primary urban areas and ports). The corridors are also considered as strategic, high level facilitators of increased economic activity and are therefore not considered mode-specific.</p> <ul style="list-style-type: none"> ■ This Economic Connectivity analysis has shown that the Western Gateway area should be viewed as both a single area containing some of the UK's fastest-growing local economies as well as being a crucial facilitator of improved connectivity to other parts of the country, including the South West, the Solent area, South Wales and the West Midlands.

Plan, Policy, Programme Name	Key Messages
Western Gateway Strategic Transport Plan 2024-2050	<p>Western Gateway's Strategic Transport Plan (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 our nine Local Authorities in producing their Local Transport Plans.</p> <p>Key economic objectives include:</p> <ul style="list-style-type: none"> ■ Support and inform planned strategic housing and employment growth ■ Maximise opportunities to reduce growth of private motor vehicle travel and manage impacts on the regional transport networks and communities ■ Support the economy to thrive and level up across the whole region, particularly where prosperity is constrained by poor connectivity ■ Facilitate visitor access to our key tourism areas, managing the impacts of seasonal peaks in travel demand ■ Maintain and improve sustainable access for goods and people to national and international gateways, including ports, airports and rail hubs ■ Level up access to social, educational and economic opportunities in all areas - particularly those currently constrained by poor connectivity - reducing isolation, exclusion and inequality ■ Improve north-south rail and road links between the Midlands and South Coast to deliver social and economic benefits and level up southern parts of the region
West of England Employment and Skills Plan (2023) and Annual Delivery Plan	<p>The Plan sets out the longer term strategic ambitions for skills, training and employment. The scope of the plan being the West of England functional economic area, with delivery activity covering the Combined Authority area. The Plan outlines five strategic objectives:</p> <ul style="list-style-type: none"> ■ Strengthen and simplify the skills system ■ Enable all young people to achieve their potential ■ Support unemployed and inactive people into work ■ Support people to progress in work ■ Address employer needs and skills shortages
West of England Combined Authority Plan for Innovation 2024-2029	<p>The Plan for Innovation sets out how over the next five years, the West of England can capitalise on its place-based advantages, sector strengths and enabling technologies to create innovation led solutions for the region's pressing challenges and priorities. It outlined core priorities as:</p> <ul style="list-style-type: none"> ■ Creating West of England sustainable transport ■ Tackling the climate and ecological emergency ■ Securing decent jobs and training ■ Making the West of England an amazing place to call home <p>Putting the West of England on the map for national and global success</p>

Plan, Policy, Programme Name	Key Messages
West of England Combined Authority Local Industrial Strategy	<p>The strategy aims to draw on the unique strengths on West of England Combined Authority and sets out the ambition to be a driving force for clean and inclusive growth. The strategy consists of four key priorities:</p> <ul style="list-style-type: none"> ■ Strengthening cross-sectoral innovation and driving production ■ Inclusive growth ■ Providing businesses with the space, network and skills they need to boost productivity, grow and thrive ■ Tackling climate change, addressing air quality and ensuring quality of life for current and future residents
West of England New Regional Economic Resilience Strategy	<ul style="list-style-type: none"> ■ The Combined Authority is currently developing a regional strategy which will aim to deliver economic growth for the region and address challenges such as productivity, skills, housing and transport.
West of England LEP Strategic Economic Plan (2015-2030)	<p>The Plan sets out the strategic direction on how growth will be managed to everyone's benefit. The Plan states that currently not everyone shares in the prosperity of economic growth and that there is a significant economic brake applied by unemployment and social exclusion. The Plan's vision is that by 2030, the West of England will have:</p> <ul style="list-style-type: none"> ■ One of Europe's fastest growing and most prosperous sub-regions which has closed the gap between disadvantages and other communities ■ A buoyant economy competing internationally ■ A rising quality of life for all, achieved by the promotion of healthy lifestyles ■ Easier local, national and international travel thanks to transport solutions that link communities to employment, opportunities and local services, control and reduce congestion and improve strategic connections by road, rail and through Bristol Airport and Bristol Port ■ Cultural attracts that are the envy of competitor city regions across Europe ■ Success secured in ways that are energy efficient, protect air quality, minimise waste and protect and enhance the built environment ■ Built upon the benefits of its distinctive mix of urban and rural areas ■ Real influence with regional and national government.
West of England Digital Plan (2023)	<p>The Plan outlines key priority areas and strategic objectives to 'deliver better services and unlock better opportunities for people and place'. The five priority areas are:</p> <ul style="list-style-type: none"> ■ Digital Infrastructure ■ Digital Inclusion and Skills ■ Digital Growth ■ Digital Public Services ■ Digital Tech for Good

Plan, Policy, Programme Name	Key Messages
North Somerset Digital Strategy 2021-2024	<p>The mission statement for the Strategy is: ‘We will maximise opportunities for digital design, data and technology to enhance economic growth, quality of life, sustainability, climate and individual opportunity in North Somerset. We will use technology to do things more effectively and to use resources more wisely.’</p> <p>Desired outcomes listed include:</p> <ul style="list-style-type: none"> ■ We enable and facilitate digitally connected new homes and communities ■ We make it attractive and easy for service providers to invest in North Somerset and accelerate the installation of full fibre broadband and 5G infrastructure ■ We use digital technologies to support renewable energy generation and carbon storage ■ More businesses have the digital skills and technology solutions they need to grow and become more productive ■ Digital solutions support the reduction of transport emissions ■ Digital solutions support charging point options for vehicles
North Somerset Council Housing Strategy 2022-2027	<p>The Strategy outlines its vision for ‘better, more sustainable and affordable homes’ A key priority of the Strategy is to ensure infrastructure is in place to support any new developments, ensuring communities have access to the services they need, such as schools, health services, roads, shops, employment and green spaces.</p>
North Somerset Employment and Skills Strategy	<ul style="list-style-type: none"> ■ The Strategy has an overall objective: ‘To ensure North Somerset’s residents benefit from economic growth, and businesses can access the talent they need to grow and invest in our region’.
North Somerset Economic Plan 2017-2036	<ul style="list-style-type: none"> ■ The Plan’s vision is for a ‘vibrant, successful place to live, work and study, with a distinctive identity and quality of life that attracts and retains enterprise, investment, young people and visitors.’ Theme 1: Facilities and Infrastructure includes ‘improving transport, accessibility and connectivity’.
South Gloucestershire Housing Strategy (2023)	<p>Objective two of the Strategy is to ‘ensure adequate infrastructure and access to amenities’, through:</p> <ul style="list-style-type: none"> ■ Local living, where everyday requirements are within a fifteen-minute walk or cycle; ■ Ensuring the timely provision of essential infrastructure and digital connectivity; ■ Making it easier for people of all ages and ability to be able to safely access their local centres or high streets by providing an infrastructure for walking and cycling, and increasing options to reduce the reliance on cars through trials of electric scooters and bikes etc ■ Ensuring that new developments meet the obligations of Local Plan policies to make contributions towards education, affordable housing, community facilities, transport, open space amenities etc as well as promoting sustainable communities in planning and design ■ Ensuring the provision of sufficient and accessible green infrastructure, walking and cycling, transport links, open spaces, and public spaces.

Plan, Policy, Programme Name	Key Messages
Bath and North East Somerset Economic Strategy 2024-2034	<p>The Strategy focuses on three distinct themes: infrastructure, innovation and opportunity. These themes will be delivered through six strategic pillars to:</p> <ul style="list-style-type: none"> ■ Create a greener economy that is net zero and nature positive; ■ Support residents to access and thrive in good work; ■ Establish Bath and North East Somerset as a centre for scientific and health academic excellence ■ Create resilient businesses ■ Address housing affordability ■ Support stronger places
Bristol City Leap Business Plan	<p>The City Leap Initial Business Plan comprises two elements; the Low Carbon Energy Infrastructure (LCEI) plan developed by Ameresco, and the Heat Network plan developed by the Ameresco's subcontractor, Vattenfall Heat UK and explores opportunities for low-carbon energy projects and future expansion of heat networks.</p>
BCP Council (2021) BCP Futures – Economic Development Strategy (EDS) for Bournemouth, Christchurch and Poole – Unleashing our potential 2021-2026	<p>The Strategy outlines priority areas of action:</p> <p>Priority areas of action:</p> <ol style="list-style-type: none"> 1. Supercharging our business community: Focusing on supporting increased productivity across our small and medium sized business community. 2. Supporting the BCP exemplar industries: Encouraging growth in BCP priority sectors and clusters as the catalysts to success. 3. Opening doors to prosperity: Creating the best local economic conditions to achieve a world-class, sustainable city region and one of the best coastal places in the world in which to live, work, invest and play. <p>Business matters @ BCP: Achieving an outstanding economic development service, acting as the concierge for Council business-facing functions.</p>
BCP Council (2021) High Streets and District Centres Strategy	<p>The Strategy details themes and objectives:</p> <p>Theme 1 – Vision and Strategy / Networks and Partnerships</p> <ul style="list-style-type: none"> ■ Objective 1: to support a broad variety of uses in our high streets and district centres ■ Objective 2: to make full use of our high street properties ■ Objective 3: to ensure successful partnership working <p>Theme 2 – Adaptability and Experience</p> <ul style="list-style-type: none"> ■ Objective 4: to make our high streets and district centres culturally rich destinations for experiences and events ■ Objective 5: alternative and future uses for our high streets and district centres <p>Theme 3 – Appearance and Attractiveness</p> <ul style="list-style-type: none"> ■ Objective 6: make our high streets and district centres cleaner and greener ■ Objective 7: keep our high streets and district centres safe and secure <p>Theme 4 – Place Marketing</p>

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> Objective 8: market and promote our high streets & district centres to showcase their full potential <p>Theme 5 – Activity and Innovation</p> <ul style="list-style-type: none"> Objective 9: use our high streets and district centres as data-rich locations that are easy to navigate Objective 10: future proof our high streets and district centres as Smart Places <p>Theme 6 – Liveability and Functionality</p> <p>Objective 11: diversify our high streets and district centres as mixed use, dynamic places to live, work and congregate</p>
BCP Council (2023) Tourism Strategy: 2023 - 2027	<p>The vision for Bournemouth, Christchurch and Poole’s Tourism Economy is to <i>‘establish one of the best coastal places in the world to visit, work and invest in.’</i></p> <p>The Strategy sets out the key Goals and Priorities that the Destination Management Board and its partners including BCP Council will develop an action plan to deliver over the next 5 years, in order to support and sustainably grow the year-round visitor economy in ways that are beneficial to the local economy and community.</p>
BCP Council (2022) BCP Skills Plan 2022-2026	<p>The BCP Skills Plan outlines clearly what needs to be done offering a strong agenda for local leadership and collaborative working to <i>‘help our economy, business and people to build resilience, realise emerging growth in our exemplar sectors, such as advanced engineering, fin-tech, green, health innovation, digital and creative and meet Net Zero ambitions, while adjusting to demographic and technological change.’</i></p> <p>The Plan sets out a range of priorities:</p> <ul style="list-style-type: none"> Priority 1: Skills driving productivity Priority 2: Work & place centric delivery Priority 3: Smart Collaborations Priority 4: Learning for Life
BCP Council (2021) Workforce Development Strategy 2021-2023	<p>The vision for the Strategy is to:</p> <p><i>‘Establish a system in which CPD, and work-based learning is business as usual and our workforce does have the time and space to reflect on practice using learning to improve outcomes for children and young people.’</i></p>
Dorset & East Devon Aquaculture, Dorset Mariculture Strategy 2020-2025	<p>The vision for the Strategy is:</p> <p><i>‘To have an industry-leading, highly productive aquaculture sector, driven by sustainable production practices and continuous innovation. A sector that delivers a resilient seafood supply chain, contributes to UK food security and brings substantial socio-economic benefits to coastal communities across Dorset.’</i></p>
Dorset Council (2023) Dorset's Economic Growth Strategy 2020 to 2024	<p>This Economic Growth Strategy sets out Dorset Council’s ambitions to enable clean, inclusive, sustainable and good quality economic growth across the whole council area. The aim is to bring improved standards of living, quality of life, health, and wellbeing for all of Dorset’s residents, and to ensure that Dorset is great place to live, work and visit.</p>

Plan, Policy, Programme Name	Key Messages
	<p>The priorities are:</p> <ul style="list-style-type: none"> ■ enhance Dorset as a place to do business and attract inward investment ■ support the creation and growth of new sustainable business. This will support high quality job creation ■ improve transport and digital connectivity across the area ■ enhance aspirations and skills to improve social mobility <p>The six foundations are:</p> <ul style="list-style-type: none"> ■ digital infrastructure ■ people and skills ■ business and environment ■ ideas and innovation ■ place ■ transport infrastructure
Dorset Council (2023) Commercial Strategy	<p>This Strategy is mechanism to ensure that the commercial approach to commissioning and procurement takes place in accordance with the Council's strategic aims, that it is effective and delivers best value to residents.</p> <p>The strategy principles provide the structure and framework from which the Council will plan and prioritise the commercial activity of commissioning and procurement. The principles are:</p> <ul style="list-style-type: none"> ■ Principle 1 - people, skills and development ■ Principle 2 - effective commissioning ■ Principle 3 - strategic sourcing ■ Principle 4 - contract management ■ Principle 5 - partnership working ■ Principle 6 - maximising the Dorset pound ■ Principle 7 - climate and ecological emergency
Gloucestershire's Economic Strategy, 2024-2034	<p>This 10-year economic strategy, covering the period 2024-25 to 2034-35, outlines the county's existing strengths, opportunities, and challenges, and provides a clear statement of intent for Gloucestershire – to achieve greener and inclusive economic growth that delivers a stronger, more sustainable, economy; and sets us on the journey to achieving a new Gloucestershire 2050 Vision. It has been developed following extensive stakeholder engagement supported by a comprehensive updated body of local evidence. The government's announcement in April 2023 to integrate LEP functions into local democratic institutions provides an opportunity to consider how to develop a new delivery model for local economic growth. Essential to this will be to build upon the work of the LEP by designing a new way to capture the 'voice of businesses,' whilst continuing to develop trusted LEP assets such as the Growth Hub network. In a later</p>

Plan, Policy, Programme Name	Key Messages
	section of this document, new governance arrangements for the delivery of this strategy are set out, which include the creation of a new Economic Growth Board to provide an independent business voice.
Swindon and Wiltshire Strategic Economic Plan (2016) – To be superseded from LEP integrations	<p>The five strategic objectives of the plan are:</p> <ul style="list-style-type: none"> ■ Skills and talent - we need an appropriately skilled and competitive workforce to achieve our growth ambitions ■ Transport infrastructure improvements - we need a well connected, reliable and resilient transport system to support economic and planned development growth at key locations ■ Digital capability - we need to deliver excellence in digital connectivity and cyber transformation to achieve business growth, innovative public services and influence societal change ■ Place shaping - we need to deliver the infrastructure required to deliver our planned growth and regenerate our City and Town Centres, and improve our visitor and cultural offer ■ Business development - we need to strengthen the competitiveness of small and medium sized businesses and attract a greater share of foreign and domestic investment into the area.

Table A-3 – Biodiversity

Plan, Policy, Programme Name	Key Messages
<i>International</i>	
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	<p>The convention has three main aims which are stated in Article 1:</p> <ul style="list-style-type: none"> ■ To conserve wild flora and fauna and their natural habitats ■ To promote cooperation between states ■ To give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species
Ramsar Convention on the Conservation on Wetlands of International Importance (1971)	<p>The Ramsar Convention covers all aspects of wetland conservation. It has three main pillars of activities:</p> <ul style="list-style-type: none"> ■ The designation of wetlands of international importance as Ramsar sites ■ The promotion of the wise use of all wetlands in the territory of each country ■ International co-operation with other countries to further the wise use of wetlands and their resources

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> While the initial emphasis was on selecting sites of importance to waterbirds, now non-bird features are increasingly taken into account, both in the selection of new sites and when reviewing existing sites.
National	
The Environment Act (2021)	<p>The Environment Act, which became law in 2021, acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction.</p> <p>The Biodiversity Gain objective requires the biodiversity value attributable to a development to exceed pre-development biodiversity value by at least 10%.</p> <p>Local Nature Recovery Strategies (LNRS) are 'a new, England-wide system of spatial strategies that will establish priorities and map proposals for specific actions to drive nature's recovery and provide wider environmental benefits'. LNRSs will inform the delivery of 'nature-based solutions' for outcomes such as flood management, carbon sequestration and improvements in water quality.</p>
The Conservation of Habitats and Species Regulations 2017	<p>The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) protect hundreds of wildlife sites in England—across millions of hectares of land, and over one hundred rare or vulnerable animal, bird and plant species. The Habitats Regulations cover the sites of greatest significance and international importance for nature, for which the UK has a special responsibility: breeding and resting sites for rare and threatened species, plus precious natural habitats that are at risk. The Regulations provide these sites with protection through the designations of Special Areas of Conservation (SACs), which provide protection to a variety of special species and habitats, and Special Protection Areas (SPAs), which provide protection for rare and vulnerable birds and their habitats. These protections also extend to internationally important wetland Ramsar sites as a matter of policy. These Habitats Regulations designations (SAC and SPA) give a higher level of legal protection than domestic protections, such as Sites of Special Scientific Interest (SSSIs), including through a legal requirement to assess potential impacts on protected sites (Habitats Regulations Assessment or HRA).</p>
The Conservation of Offshore Marine Habitats and Species Regulations 2017	As above but for marine habitats and species
25 Year Environment Plan, HM Government (2018)	<p>The 25 Year Environment Plan outlines the UK Government's ambition:</p> <p>'To leave our environment in a better state than we found it and the steps proposed to take to achieve that ambition.'</p>

Plan, Policy, Programme Name	Key Messages
	<p>The Plan includes ten key targets of which two focus on biodiversity.</p> <p><u>Thriving plants and wildlife:</u></p> <ul style="list-style-type: none"> Restoring 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term Creating or restoring 500,000 hectares of wildlife-rich habitat outside the protected site network, focusing on priority habitats as part of a wider set of land management changes providing extensive benefits Taking action to recover threatened, iconic or economically important species of animals, plants and fungi and where possible to prevent human-induced extinction or loss of known threatened species in England and the Overseas Territories Increasing woodland in England in line with our aspiration of 12% cover by 2060: this would involve planting 180,000 hectares by end of 2042. <p><u>Enhancing biosecurity:</u></p> <ul style="list-style-type: none"> Managing and reducing the impact of existing plant and animal diseases; lowering the risk of new ones and tackling invasive non-native species Reaching the detailed goals to be set out in the Tree Health Resilience Plan of 2018 Ensuring strong biosecurity protection at our borders, drawing on the opportunities leaving the EU provides Working with industry to reduce the impact of endemic disease
The Environmental Improvement Plan 2023	<p>The Environmental improvement plan 2023 (EIP 2023) represents the first review of the 25 Year Environmental Plan (25YEP). It reinforces the intent of the 25YEP. Where it sets out the framework and vision, the EIP 2023 sets out the plan to deliver.</p> <p>To achieve its vision, the 25YEP set out 10 goals. The EIP 2023 uses the 10 goals set out in the 25YEP as the basis for its review: setting out the progress made against all 10, the specific targets and commitments made in relation to each goal, and its plan to continue to deliver those targets and the overarching goals.</p> <p>The EIP 2023 has an apex goal of improving nature where it will halt the decline in biodiversity to achieve the thriving plants and wildlife goal. As part the apex goal, the plan aims to:</p> <ul style="list-style-type: none"> Halt the decline in species abundance by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042 Launch the Species Survival Fund to create, enhance and restore habitats Create, restore, and extend around 70 areas for wildlife through projects including new National Nature Reserves, and the next rounds of the Landscape Recovery Projects Protect 30% of our land and sea for nature through the Nature Recovery Network and enhanced protections for our marine protected areas. We intend to designate the first Highly Protected Marine Areas this year Implement the Environment Act 2021, including rolling out Local Nature Recovery Strategies to identify areas to create and restore habitat, and Biodiversity Net Gain to enhance the built environment

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ Support a transformation in the management of 70% of our countryside by incentivising farmers to adopt nature friendly farming practices ■ Publish an updated Green Finance Strategy, setting out the steps we are putting in place to leverage in private finance to deliver against these goals. We have a goal to raise at least £500 million per year of private finance into nature's recovery by 2027 and more than £1 billion by 2030
Wildlife and Countryside Act (as amended 1981)	<p>The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version).</p> <p>The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) and the protection of wildlife.</p>
Working with the grain of nature: A Biodiversity Strategy for England (2002)	<p>The Biodiversity Strategy for England sets a fundamental shift in train by ensuring that biodiversity considerations become embedded in all the main sectors of economic activity, public and private. The Strategy capitalises on the opportunities presented by the report of the Policy Commission on Food and Farming and the current review of the Common Agricultural Policy.</p> <p>The Strategy sets out a programme for five years for the other main policy sectors, to make the changes necessary to conserve, enhance and work with the grain of nature and ecosystems rather than against them. It takes account of climate change as one of the most important factors affecting biodiversity and influencing policies.</p>
The Natural Environment White Paper (2011)	<p>The aim of the White Paper is to set out a clear framework for protecting and enhancing the things that nature gives us for free.</p> <p>Four core themes:</p> <ul style="list-style-type: none"> ■ Protecting and improving our natural environment ■ Growing a green economy ■ Reconnecting people and nature ■ International and EU leadership
Making Space for Nature: A review of England's Wildlife Sites and Ecological Network: Chaired by Professor Sir John Lawton CBE FRS (2010)	<p>Species and habitats should be restored and enhanced in comparison with 2000 levels.</p> <p>Improve the long term sustainability of ecological and physical processes that underpin the functioning of ecosystems, thereby enhancing the capacity of ecosystem services. Provide accessible natural environments rich in wildlife for people to enjoy and experience.</p>

Plan, Policy, Programme Name	Key Messages
The Natural Choice: Securing the value of nature: HM Government (2011)	<p>Protect and enhance biodiversity through Nature Improvement Areas (NIAs), biodiversity offsetting, Local Nature Partnerships and phasing out peat use.</p> <p>Place natural capital at the centre of economic decision making to avoid the unintended environmental consequences that arise from undervaluing natural assets.</p>
National Networks National Policy Statement (NN NPS) (2024)	<p>NN NPS states that any national network Nationally Significant Infrastructure Project (NSIP) should seek to improve and enhance the environment irrespective of the reasons for developing the scheme. However, there may be instances where infrastructure interventions are required to bring about improvements to environmental outcomes. Such outcomes might include contributing to net zero targets through, for example, electric vehicle charging, electrification of rail, improvements to air quality through reductions in congestion, or delivering localised environmental improvements to cultural heritage, landscape, or biodiversity.</p> <p>It states that biodiversity net gain should be applied in conjunction with the mitigation hierarchy and does not change or replace existing environmental obligations. In addition to providing net gains for biodiversity, applicants should also identify and deliver appropriate opportunities for nature recovery and wider environmental enhancements.</p>
National Planning Policy Framework (NPPF) (2023)	<p>Paragraphs 180 and 185 to 188 of the NPPF require development to protect and safeguard biodiversity, and advise that development should aim to conserve, restore and enhance biodiversity adequately through mitigation or, as a last resort, using compensation. Proposals which aim to conserve or enhance biodiversity should be supported.</p> <p>Recognise the wider benefits of ecosystem services; minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the UK Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.</p> <p>Paragraph 180 of the NPPF requires that planning decisions should be taken to enhance the natural environment by recognising the wider benefits from natural capital and ecosystem services. Further, Paragraph 181 requires plans to take a strategic approach to maintaining and enhancing green infrastructure networks and improving natural capital at a catchment or landscape scale.</p>
The State of Natural Capital: Restoring our Natural Assets; Natural Capital Committee (2014)	<p>The report identifies that:</p> <p>Some assets are currently not being used sustainably and the benefits that we derive from them are at risk</p> <p>There are major economic benefits to be gained from natural capital and that their value should be incorporated into decision making</p> <p>A long-term restoration plan is necessary to maintain and improve natural capital for future generations</p>

Plan, Policy, Programme Name	Key Messages
The State of Natural Capital; Natural Capital Committee (2020)	<p>In the report, the Natural Capital Committee sets out:</p> <p>Despite some improvements, only limited progress has been made towards the 25 Year Environment Plan's goals</p> <p>Its advice to Government that biodiversity net gain should be expanded to environmental net gain</p> <p>Its advice that an England wide baseline of natural capital assets should be established to measure progress towards environmental goals</p> <p>Natural capital should be seen as infrastructure in its own right, in recognition of its contribution to economic wellbeing.</p>
Natural England (2023) Green Infrastructure Framework	<p>Aimed at planners and developers, the Green Infrastructure Framework will help increase the amount of green cover to 40% in urban residential areas. The Green Infrastructure Framework (GIF) provides a structure to analyse where greenspace in urban environments is needed most. It aims to support equitable access to greenspace across the country, with an overarching target for everyone being able to reach good quality greenspace in their local area.</p>
The England Trees Action Plan 2021	<p>This action plan will help to shape the kind of country future generations will want to live in, alive with the formidable power of healthy trees.</p> <p>England will have at least 12% woodland cover by mid-century, contributing to net zero greenhouse gas emissions. Its conifer and broadleaf woodlands will be managed for biodiversity and other environmental benefits, along with providing sustainable sources of hardwood and softwood timber and woody products, which can be effective carbon stores and are already seeing increased demand for as we transition to a green economy.</p>
Local	
West of England Combined Authority Joint Green Infrastructure Strategy (2020-2030) and Action Plan	<p>The Joint Green Infrastructure Strategy provides a multi-beneficial approach to strategy, policy and delivery in order to address:</p> <p>Inequalities in the provision of green infrastructure and health</p> <p>Achieve well-designed, attractive and healthy places that deliver economic benefits and community resilience</p> <p>Respond positively to the climate and ecological emergency</p>
West of England Nature Partnership Strategy	<p>The West of England Nature Partnership (WENP), which bring together key partners across the West of England to deliver more for nature, has published a set of Ambitions for Nature Recovery as part of its Strategy. The West of England Nature Partnership has ambitions for 2050 to:</p> <ul style="list-style-type: none"> ■ Increase the abundance of wildlife from 2020 levels by 50% by 2030 ■ Increase semi-natural broadleaved woodland cover from 8,000 to 16,000 hectares

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ Create 6,000 hectares of wildlife-rich habitat outside of the protected site network ■ Close all NRN connectivity gaps through the creation of new habitat ■ Ensure all water catchments are in good ecological status ■ Ensure all designated sites are in favourable condition
West of England Nature Partnership. The Forest of Avon Plan. A Tree and Woodland Strategy for the West of England (2021)	<p>This strategy sets out a long-term, generational vision for trees and woodlands across the region, aiming to ‘better manage and connect trees and woodland to make a vital contribution to a thriving natural environment, society and economy in the West of England.’</p> <p>There is also an agreed aspiration to double the West of England’s semi-natural tree and woodland cover by 2050.</p>
Bristol Avon Fish Recovery Strategy	<p>The Strategy, supported by all four LA’s in the region, has a vision which states:</p> <p>‘The fish populations in the Bristol Avon catchment are thriving, with a diverse range of species living and breeding in healthy rivers and tributaries. Migratory fish, including sea trout, Atlantic salmon and European eel, as well as brown trout and coarse fish species are present within their typical habitats throughout the catchment. The tidal reaches act as an important habitat for estuarine and marine fish species linked to the internationally important fish assemblage of the Severn Estuary Special Area of Conservation.’ It aims to ensure:</p> <ul style="list-style-type: none"> ■ Healthy populations of migratory fish ■ A diversity of coarse fish species ■ A diverse abundance of estuarine and marine fish species ■ The different habitats required to ensure fish population’s are protected, restored and resilient
<p>West of England Combined Authority Local Nature Recovery Strategy</p> <p>Wiltshire & Swindon Local Nature Recovery Strategy</p> <p>Dorset Nature Recovery Strategy</p> <p>Gloucestershire Nature Recovery Strategy</p>	<p>A Local Nature Recovery Strategy (LNRS) for the Mayoral Combined Authority and these local authorities are currently being developed to coordinate efforts to restore nature across the region. .</p>

Plan, Policy, Programme Name	Key Messages
Malvern Hills National Landscape Nature Recovery Strategy (in development)	
Cotswolds Nature Recovery Plan	<p>Adopted by the Board of the Cotswolds National Landscape as guidance in October 2021, the Cotswolds Nature Recovery Plan (CNRP) was developed in partnership with the Cotswolds Nature Recovery Forum. The overall vision of the plan is:</p> <p>‘By 2050, the Cotswolds will be a place where local people and visitors actively support and benefit from the widespread recovery of nature, restoring and enhancing a distinctly Cotswolds mosaic of habitats and species that fit within the landscape’s character’.</p>
Bath and North East Somerset Ecological Emergency Action Plan 2023 - 2030	<p>The Plan’s vision is to ‘be Nature Positive by 2030 through making a positive contribution to nature recovery, across all service areas and all decision-making’. The Plan focuses on forty-five actions that the council believes will deliver the biggest impact for nature recovery. Of these, the council has outlined a top ten priority actions.</p>
Bristol One City Ecological Emergency Strategy and Bristol Biodiversity Action Plan	<p>The One City Ecological Emergency Strategy's four goals are:</p> <ul style="list-style-type: none"> 5 For 30 per cent of land in Bristol to be managed for the benefit of wildlife 6 To reduce the use of pesticides in Bristol by at least 50 % 7 For all waterways to have excellent water quality which supports healthy wildlife 8 To reduce consumption of products that undermine the health of wildlife and ecosystems around the world <p>The Bristol Biodiversity Action Plan (BAP) provides the framework for habitat and species conservation in Bristol. It also recognises the benefits of wildlife to people and helps to identify ways to better promote, and engage people in, biodiversity conservation in the city.</p> <ul style="list-style-type: none"> ■ Provide a strategic overview for biodiversity conservation in Bristol ■ Highlight priority habitats and species that are of particular value in Bristol, both within the national and local context ■ Highlight threats and issues affecting these priority habitats and species, together with objectives, targets and actions to address them ■ Encourage a common approach to biodiversity conservation and sharing of best practice ■ Encourage education and community action and involvement as a key part of the biodiversity process ■ Promote biodiversity conservation as an essential element of sustainable development ■ Promote the importance of Bristol's biodiversity at a local, regional and national level

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> Develop Bristol as a centre of excellence for urban biodiversity conservation
North Somerset Rewilding Project	<p>Rewilding projects have been established across North Somerset working with council partners. Projects include; extensive tree planting, tall grass introduction, habitat creation, regenerative amenity grassland management and creating flower meadows.</p>
South Gloucestershire Biodiversity Action Plan 2016 - 2026	<p>The Biodiversity Action Plan outlines five key strategic objectives for enhancing biodiversity:</p> <ul style="list-style-type: none"> Share biological data to inform decision-making; Ensure that the Council considers biodiversity in exercising all of its statutory regulatory functions Improve the management for biodiversity of land and buildings owned by South Gloucestershire Council Raise awareness of biodiversity and promote opportunities for formal and informal learning about and understanding of the natural world Establish and maintain an internal reporting mechanism to inform and report on how South Gloucestershire Council is actively halting biodiversity loss
Wiltshire Climate Strategy 2022-2027	<p>This strategy sets a framework for reducing emissions in Wiltshire over the next five years and for making the county resilient to climate impacts. This strategy is not a statutory document, but it will influence other key council strategies and plans such as the emerging Local Plan and our Local Transport Plan.</p> <p>Key biodiversity objectives:</p> <ul style="list-style-type: none"> Efficient and environmentally sensitive use of land, providing for the needs of an increasing population and nature: food production, renewable energy generation, housing and transport, alongside woodland creation and nature recovery Protect and extend our network of green spaces and land and water habitats. Make best use of this network of green and blue spaces for biodiversity, active travel, recreation, cooling, shade and absorbing carbon.
Wiltshire Local Plan, Pre-submission Draft 2020-2038 (Pre-submission Draft) (2023)	<p>Relevant Local Plan policies include:</p> <ul style="list-style-type: none"> Policy 4 – Addressing climate change Policy 84 – Public open space and play facilities Policy 88 – Biodiversity and Geodiversity
Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011 – 2031 (2017)	<p>Policy SD9: Biodiversity and Geodiversity</p> <p>The biodiversity and geological resource of the JCS area will be protected and enhanced in order to establish and reinforce ecological networks that are resilient to current and future pressures. Improved community access will be encouraged so far as is compatible with the conservation of special features and interests</p>

Plan, Policy, Programme Name	Key Messages
Gloucester City Plan 2011–2031 (2017)	<p>Policy E1: Biodiversity and Geodiversity</p> <p>Development proposals must demonstrate the conservation of biodiversity, in addition to providing net gains appropriate to the ecological network. Potential adverse impacts on natural environment assets including the connectivity of the ecological network, must be avoided or satisfactorily mitigated. In exceptional circumstances, where an impact cannot be avoided or mitigated on site, compensatory measures, including the use of biodiversity offsets will be considered as a means to provide an overall net gain.</p>
Cotswolds National Landscape Management Plan 2023 – 2025	<p>The Cotswolds National Landscape Management Plan ('the Management Plan') is a statutory plan, which sets out policies for the management of the National Landscape. The National Landscape Board is the body responsible for preparing and publishing the Management Plan and for reviewing it at intervals of no more than five years. This is the fifth such document prepared by the Board.</p> <p>Outcome 9 – Biodiversity and nature recovery</p> <p>There is concerted unified action for a widespread recovery of nature – conserving, restoring and enhancing a connected mosaic of distinctly Cotswolds habitats and species.</p>
Dorset National Landscape Management Plan 2019 – 2024	<p>The Dorset Area of Outstanding Natural Beauty Partnership is working towards a future in which the management of the landscape and designation is the best example of how protected landscapes can stimulate truly sustainable development and land management. The vision for the environment of the AONB:</p> <ul style="list-style-type: none"> ■ the AONB is stunningly beautiful, tranquil and healthy ■ there are large tracts of well linked, high quality habitats within a landscape capable of supporting resilient populations of a wide range of species ■ the AONB is regarded as a store of natural capital which is conserved and managed to maximise the benefits available from it (clean water, clean air, productive soils, geological resources, etc)
Cranborne Chase Partnership Plan 2019-2024	<p>The Plan presents the special qualities and features of the AONB and determines what actions are required to ensure their conservation and enhancement. It explains the significance of this AONB and describes its outstanding landscapes, focussing on conserving and enhancing them, sustaining living and working landscapes, and the special landscapes to enjoy.</p> <p>The vision:</p> <p><i>'In 2030, the Cranborne Chase AONB will be an inspirational example of sustainable management in action.'</i></p> <p>A nationally appreciated place where:</p> <ul style="list-style-type: none"> ■ its distinctive local landscapes, historic heritage, and wildlife are conserved and enhanced by those who work and manage the land, nurturing a valued and treasured countryside for future generations; ■ its healthy soils, clean air and water are appreciated, prized and respected by all ■ its characteristic vibrant villages, profoundly rural character, and local sense of pride are tangible to all who live and visit here, or just pass through;

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ the breadth and depth of historic land use offers up its stories in the landscape today; ■ its cultural heritage is conserved, understood, enhanced, valued and enjoyed; ■ the aesthetic qualities of the landscape and environment, along with the sense of wonder and enjoyment, are appreciated by all; and ■ the quality of life remains high and the aspirations of those who live and work here are supported. <p>Ambition – <i>‘Wildlife thrives in the AONB and is able to move freely around the area.’</i></p>
BCP Council (2022) Green Infrastructure Strategy – Investing in a healthy, biodiverse, resilient and world class city region 2022-2031	<p>This Strategy sets out the council’s ambitions for investing in green infrastructure across Bournemouth, Christchurch and Poole over the next ten years.</p> <p>The aim is to make best use of our green infrastructure to:</p> <ul style="list-style-type: none"> ■ Help increase health and well-being outcomes for our communities and visitors, thereby reducing pressures on health and social services ■ Reverse biodiversity loss and nature recovery ■ Strengthen the resilience of people, places and nature to a changing climate ■ Support high quality placemaking <p>The ambition is to secure investment in the delivery of a multi-functional green infrastructure network, weaving together and enriching green and blue spaces throughout the city region – the ‘Green Net’.</p> <p>The vision for the Green Net is:</p> <p><i>‘The Green Net provides a natural health service and life support system for our communities throughout Bournemouth, Christchurch and Poole. Providing the backdrop to peoples’ everyday lives, the Green Net reinforces the green image of the city region as a healthy, biodiverse, resilient and world class place to live, work, study, visit and invest in.’</i></p> <p>The vision is supported by four overarching, long-term strategic goals:</p> <ul style="list-style-type: none"> ■ Goal 1. Encourage healthy living and well-being ■ Goal 2. Strengthen resilience to climate change ■ Goal 3. Support nature recovery and biodiversity ■ Goal 4. Support economic recovery, prosperity and placemaking
Dorset Council (2023) Natural Environment, Climate and Ecology Strategy 2023 to 25 Refresh	<p>The vision for the Strategy:</p> <p><i>‘Our vision is for a carbon neutral, nature positive and resilient Dorset achieved through a clean, green and fair transition and that generates prosperous, stronger and healthier communities.’</i></p> <p>The strategy is focused on three pillars:</p> <ul style="list-style-type: none"> ■ climate change: Cutting our greenhouse gas emissions ■ biodiversity loss: Helping nature to recovery by protecting and enhancing our land, rivers and seas ■ environmental resilience: Adapting for the impacts of unavoidable environmental change <p>The strategy is focused on three broad issues:</p>

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> — how we power and heat things — how we build, make and dispose of things — how we use our land, rivers and seas <p>At its heart are 9 core missions:</p> <ul style="list-style-type: none"> ■ renewable generation ■ heat decarbonisation ■ energy and water efficiency ■ road transport decarbonisation and modal shift ■ sustainable development and construction ■ sustainable consumption, waste and circularity ■ sustainable food ■ natural assets and nature-based solutions ■ resilience and adaptation <p>Overall it has four broad outcomes it aims to achieve:</p> <ol style="list-style-type: none"> 1 Net Zero Council 2040 and Net Zero Dorset 2050: Net zero emissions from power, heat, transport, construction, food, consumables and waste 2 Nature Positive Dorset 2030: At least 30% of our land, rivers and seas and nature-positive by 2030 3 prosperity through green growth: Green jobs, skills and investment for low carbon and nature sectors 4 stronger, healthier communities: Healthier, cheaper to run homes and safer more resilient communities
Dorset Council (2023) Dorset Council Pollinators Action Plan 2019 to 2024	<p>The Action Plan proposes a range of positive approaches which can be applied to the management of councils' assets, projects and decision-making processes in relation to the decline in pollinators, on Dorset Council land.</p> <p>The actions are subdivided into five themes, as recommended by Buglife and Friends of the Earth 'Helping Pollinators Locally: Developing a local pollination Action Plan or Strategy':</p> <ul style="list-style-type: none"> ■ the management of the council's green assets ■ enhancement opportunities via new development on Council land ■ opportunities via the Councils planning functions ■ raising awareness ■ monitoring, research and evidence
Stour Valley Park Partnership (2022) The Stour Valley Park Strategy Document	<p>The Stour Valley Park is a vision for a regional park where everyone can enjoy the benefits of the natural world.</p> <p>The vision for the Stour Valley Park is:</p>

Plan, Policy, Programme Name	Key Messages
	<p><i>‘Our vision is of an abundant river system and vibrant landscape, full of life; where people and nature thrive in harmony with one another, where we can learn about our past, enjoy the present and work towards a better future for all.’</i></p> <p>The Aims & Objectives are:</p> <ul style="list-style-type: none"> ■ Create an accessible landscape which will regenerate the river, improve water quality, and enhance biodiversity. ■ Support the adoption of long-term sustainable land management. ■ Open up parts of the river valley for shared public access to improve the health and wellbeing of the locality. ■ Boost the local economy through new business opportunities and jobs which will help provide the resources for ongoing management of greenspace. ■ Uncover and then enhance the landscape’s unique heritage and history. ■ Ensure an integrated approach to future growth, work with relevant sectors – housing, health, transport & culture. ■ Establish a unique brand for the Park, marketing it as a new regional destination with identifiable gateways (visitor centres, information points etc). ■ Enable integrated access via public transport and walking/cycle links, encouraging people to choose car-free travel alternatives along and across the Park. ■ Enhance the landscape’s contribution to reducing and managing flood risk. ■ Work to a 10-year time frame for delivery.
A Green and Blue Infrastructure Strategy for Wiltshire, Wiltshire’s Natural Environment Plan 2022-2030	<p>The Vision for Wiltshire’s Green & Blue Infrastructure</p> <p>Wiltshire’s multi-functional network of high quality, biodiverse and accessible green and blue infrastructure is widely valued by our communities, businesses and visitors.</p> <p>Managed sustainably through strong leadership and partnerships, the green and blue infrastructure network provides a range of well-being benefits for people, places and nature across Wiltshire.</p> <p>As a result of working with natural processes to support delivery of multi-functional ecosystem services, Wiltshire is better able to adapt to a changing climate and biodiversity loss has been reversed.</p> <p>Networks of green and blue spaces and corridors in the countryside and our towns support access to nature and healthy lifestyles and provide high quality landscapes and beautiful places for people to live, work and visit.</p>

Table A-4 – Landscape and Townscape

Plan, Policy, Programme Name	Key Messages
National	
National Planning Policy Framework (2023)	<p>Planning policies and decisions should ensure that developments are sympathetic to local character, including the surrounding built environment and landscape setting, and ensure that developments are visually attractive and of appropriate architecture, layout and effective landscaping.</p> <p>Paragraph 180 of the NPPF requires developments to protect and enhance valued landscapes and recognise the intrinsic character and beauty of the countryside.</p> <p>Paragraph 182 of the NPPF states that great weight should be given to conserving and enhancing landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.</p> <p>Paragraph 183 of the NPPF states that when considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest.</p>
The Environmental Improvement Plan 2023	<p>The Environmental improvement plan 2023 represents the first review of the 25 Year Environmental Plan (25YEP). The EIP 2023 uses the 10 goals set out in the 25YEP as the basis of the document: setting out the progress made against all 10, the specific targets and commitments made in relation to each goal, and its plan to continue to deliver the targets and the overarching goals.</p> <p>Goal 10: Enhancing beauty, heritage and engagement with the natural environment, is to “safeguard and enhance the beauty of our natural scenery and improving its environmental value while being sensitive to considerations of its heritage.”</p>
National Policy Statement for National Networks (NN NPS) (2024)	<p>Where the proposed development will lead to substantial harm to, or total loss of, significance of a designated heritage asset, the Secretary of State should refuse consent unless it can be demonstrated that it is necessary to deliver substantial public benefits that outweigh that loss or harm. Alternatively, that all of the following apply:</p> <ul style="list-style-type: none"> ■ the nature of the heritage asset prevents all reasonable uses of the site ■ no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation • conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible ■ the harm or loss is outweighed by the benefit of bringing the site back into use

Plan, Policy, Programme Name	Key Messages
Green Infrastructure: An integrated approach to landscape use. Landscape Institute Position Statement (2013)	The Landscape Institute's most recent position statement, 'Green Infrastructure LI Position Statement 2013' sets out why GI is crucial to our sustainable future. The publication showcases a range of successful GI projects and shows how collaboration is key to delivering multifunctional landscapes. It also illustrates why landscape professionals should take the lead on the integration of GI.
Local Green Infrastructure: helping communities make the most of their landscape: Landscape Institute for Green Infrastructure Partnership (2011)	Communities should identify green infrastructure requirements in their local area through addition to or creative enhancement of the existing network. Look to enhance local landscape character, heritage and biodiversity and ensure long term management is included in an overall strategy.
Guidance for Outdoor Sport and Play (2015)	Fields in Trust guidance, first published in the 1930s, is based on a broad recommendation that 6 acres (2.4 hectares) of accessible green space per 1,000 head of population enables residents of all ages to participate in sport and play; 75% of local authorities adopt this or an equivalent standard (2014 Fields in Trust / David Lock Associates Survey).
Accessible Natural Green Space Standards in Towns and Cities: A review and Toolkit for their implementation (2003) and Nature Nearby: Accessible Green Space Guidance (2010)	<p>English Nature (now Natural England) recommends that provision should be made of at least 2 ha of accessible natural greenspace per 1000 population according to a system of tiers into which sites of different sizes fit:</p> <ul style="list-style-type: none"> ■ No person should live more than 300m from their nearest area of natural greenspace; ■ There should be at least one accessible 20ha site within 2km from home ■ There should be one accessible 100ha site within 5km ■ There should be one accessible 500ha site within 10km
Natural England (2023) Green Infrastructure Framework	Aimed at planners and developers, the Green Infrastructure Framework will help increase the amount of green cover to 40% in urban residential areas. The Green Infrastructure Framework (GIF) provides a structure to analyse where greenspace in urban environments is needed most. It aims to support equitable access to greenspace across the country, with an overarching target for everyone being able to reach good quality greenspace in their local area.



Plan, Policy, Programme Name	Key Messages
National Highways, On the Road to Good Design	<p>Aimed at developers, the On the Road to Good Design provides project teams with independent advice on good design. It helps schemes deliver positive impacts for local communities and better environmental outcomes. It also provides tangible benefits to National Highways in terms of implementing best practice and working efficiently.</p> <p>This also includes good design to conserve and enhance landscapes.</p>
Local	
West of England Combined Authority Joint Green Infrastructure Strategy (2020-2030) and Action Plan	<p>The Joint Green Infrastructure Strategy provides a multi-beneficial approach to strategy, policy and delivery in order to address:</p> <ul style="list-style-type: none">Inequalities in the provision of green infrastructure and healthAchieve well-designed, attractive and healthy places that deliver economic benefits and community resilienceRespond positively to the climate and ecological emergency
West of England Combined Authority Strategic Green Belt Assessment (not including North Somerset)	<p>The assessment has been undertaken to understand the strategic role and function of the Bristol & Bath Green Belt within the West of England Combined Authority area, which includes Bath & North East Somerset, Bristol, and South Gloucestershire authorities. The strategic Green Belt assessment systematically considers parcels of land in an objective and consistent manner against the 5 Green Belt purposes defined in National Policy (NPPF).</p>
Bristol Parks and Green Space Strategy 2024-2039 and Food Growing and Allotments Strategy	<p>The Strategy's vision is:</p> <p>‘Our vision for Bristol is that by 2039, all our communities feel that parks are accessible, inclusive, safe, fun and rich in nature and wildlife. We want more people than ever before to visit our parks and stay for longer, and to take part in activities which make them healthier and happier.’ The vision is guided by six strategic priority themes:</p> <ul style="list-style-type: none">■ Nature and Climate■ Children and Young People■ Community Participation■ Health and Wellbeing■ Culture■ Employment and Skills
Draft Bristol Tree and Woodland Strategy	<p>The draft Strategy's vision is: ‘A city of trees, where everyone is close to trees and directly benefits from them.’ There are targets outlined in the draft Strategy to:</p> <ul style="list-style-type: none">■ Target A: Increase city tree canopy cover by 795ha (equivalent to 1,100 football pitches) by 2046, giving a total canopy of 24%■ Target B: Protected woodland to be in good management by 2046 (to meet Managing for Nature definition)

Plan, Policy, Programme Name	Key Messages
	In achieving Targets A and B we will care for and manage the 600,000 trees in the city, sustaining them, their successors and new planting into the future
North Somerset Green Infrastructure Strategy	<p>The North Somerset Green Infrastructure Strategy's vision is to:</p> <p>'By 2030 our green infrastructure will be: contributing to a carbon neutral community; biodiversity will have measurably increased; and health and wellbeing will be improved.' The Strategy sets out opportunities for improving the connectivity and quality of green infrastructure to maximise co-benefits and assist North Somerset in addressing the Climate and Nature emergency.</p>
Bath and North East Somerset Green Infrastructure Strategy	The Strategy's vision is that: "By 2026 the Council and its partners will have worked with the community to achieve a well-used, managed, connected and expanding network of green infrastructure which provides a wealth of benefits for people, place and nature".
South Gloucestershire Green Infrastructure Strategy	<p>The Strategy's vision is for South Gloucestershire to be a 'greener place, where people and nature thrive'. The Strategy includes how South Gloucestershire will:</p> <ul style="list-style-type: none"> ■ Create more habitat for nature ■ Have quality public open spaces ■ Manage green infrastructure to adapt to the changing climate and support health and wellbeing ■ Have green infrastructure at the heart of new development planning ■ Work with partners, communities, and residents to have more, improvement and better connected green infrastructure
Mendip Hills and Cotswold Area of Outstanding Natural Beauty Management Plans	These Plans set out the issues facing these National Landscapes and the measures to ensure their future protection.
Bath and North East Somerset Core Strategy and Place Making Plan (2017)	The Core Strategy is a key policy document for Bath & North East Somerset that puts in place a strategic planning framework to guide change and development in the District over the next 20 years and beyond. The Placemaking Plan will help to deliver better places by facilitating the delivery of high quality, sustainable and well located development supported by the timely provision of necessary infrastructure. It complements the strategic framework in the Core Strategy by setting out detailed development and design principles for identified and allocated development sites, as well as a range of policies for managing development and protecting valued assets across Bath and North East Somerset.

Plan, Policy, Programme Name	Key Messages
Cotswolds National Landscape Management Plan 2023 – 2025	<p>Outcome 4 – Landscape: The evolving landscape and much loved character of the Cotswolds is better understood and at the heart of all we do and the decisions we make.</p> <p>Outcome 5 – Local distinctiveness: In a world of constant and rapid change, the local distinctiveness of the National Landscape is valued, conserved and enhanced.</p> <p>Outcome 6 – Tranquillity: Noise pollution and visual disturbance are minimised to maintain tranquillity across the National Landscape.</p> <p>Outcome 7 – Dark skies: Fewer areas of the National Landscape are affected by light pollution.</p> <p>Outcome 10 – Rural land management: Land management conserves and enhances the natural beauty of the National Landscape whilst balancing the competing pressures of recovering nature, tackling climate change, food production, supporting livelihoods and public access.</p>
Cranborne Chase Partnership Plan 2019-2024	<p>The Plan presents the special qualities and features of the AONB and determines what actions are required to ensure their conservation and enhancement. It explains the significance of this AONB and describes its outstanding landscapes, focussing on conserving and enhancing them, sustaining living and working landscapes, and the special landscapes to enjoy.</p> <p>The vision:</p> <p><i>‘In 2030, the Cranborne Chase AONB will be an inspirational example of sustainable management in action.’</i></p> <p>A nationally appreciated place where:</p> <ul style="list-style-type: none"> ■ its distinctive local landscapes, historic heritage, and wildlife are conserved and enhanced by those who work and manage the land, nurturing a valued and treasured countryside for future generations; ■ its healthy soils, clean air and water are appreciated, prized and respected by all ■ its characteristic vibrant villages, profoundly rural character, and local sense of pride are tangible to all who live and visit here, or just pass through; ■ the breadth and depth of historic land use offers up its stories in the landscape today; ■ its cultural heritage is conserved, understood, enhanced, valued and enjoyed; ■ the aesthetic qualities of the landscape and environment, along with the sense of wonder and enjoyment, are appreciated by all; and ■ the quality of life remains high and the aspirations of those who live and work here are supported. <p>Ambitions:</p> <ul style="list-style-type: none"> — The unique character, tranquillity and special qualities of the AONB landscapes are conserved and enhanced. — The area’s special qualities are widely understood. — Informed decision-making strengthens the special qualities. — When change happens, it is consistent with the character of the landscape and the setting of the AONB. <p>We will take opportunities to restore landscape features that require it.</p>

Plan, Policy, Programme Name	Key Messages
Dorset National Landscape Management Plan 2019 – 2024	<p>The Dorset Area of Outstanding Natural Beauty Partnership is working towards a future in which the management of the landscape and designation is the best example of how protected landscapes can stimulate truly sustainable development and land management. The vision for the environment of the AONB:</p> <ul style="list-style-type: none"> ■ the AONB is stunningly beautiful, tranquil and healthy ■ there are large tracts of well linked, high quality habitats within a landscape capable of supporting resilient populations of a wide range of species ■ the AONB is regarded as a store of natural capital which is conserved and managed to maximise the benefits available from it (clean water, clean air, productive soils, geological resources, etc)
Joint Core Strategy Landscape Characterisation Assessment and Sensitivity Analysis (2013)	This work has been prepared as part of the evidence for the Joint Core Strategy to provide landscape character and sensitivity analysis around the urban centres of Gloucester, Cheltenham and Tewkesbury.

Table A-5 – Historic Environment

Plan, Policy, Programme Name	Key Messages
<i>International</i>	
UNESCO, The World Heritage Convention (1972)	This convention sets out a framework for the identification and designation of cultural or natural heritage sites of 'outstanding universal value' as World Heritage Sites.
The Valetta Convention (1992)	<p>This convention outlines protection measures for archaeological heritage assets, including the development and maintenance of an inventory of sites. The aim of this convention is to protect sites for future study, outlines the requirements to report 'chance finds', as well as controlling excavations.</p> <p>The input of expert archaeologists into the making of planning policies and decisions is also required under this convention.</p>

Plan, Policy, Programme Name	Key Messages
Convention for the Protection of the Architectural Heritage of Europe, Granada (1985)	<p>The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It affirms the needs for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties.</p> <p>The convention considers comprising the following permanent properties, which are stated in Article 1:</p> <ul style="list-style-type: none"> ■ Monuments: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings; ■ Groups of buildings: homogenous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units; and ■ Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.
National	
National Planning Policy Framework (NPPF) (2023)	<p>Paragraph 196 of the NPPF requires plans to set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats.</p> <p>Paragraph 201 of the NPPF states that local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise.</p> <p>Paragraph 205 of the NPPF states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be).</p>
Planning Policy Guidance – Historic Environment (2019)	This sets out broad guidelines and advice on how to enhance and conserve the historic environment through plan making and decision making.
National Policy Statement for National Networks (NN NPS) (2024)	<p>Projects need to be designed carefully, taking account of the potential impact on the landscape. For projects with the potential to affect nationally designated landscapes the relevant management plan(s) for these areas should be referred to for information to assist with the design of the scheme.</p> <p>Adverse landscape and visual effects may be minimised through appropriate siting of infrastructure, design (including choice of materials), and topographical interventions (for example, creation of bunds or lowering of ground level). Also, landscaping schemes (including screening options and design elements that soften the built form such as green bridges), depending on the size and type of the proposed project. Materials and designs for infrastructure should always be given careful consideration in terms of environmental standards.</p>

Plan, Policy, Programme Name	Key Messages
Ancient Monuments and Archaeological Areas Act 1979	An Act to consolidate and amend the law relating to ancient monuments; to make provision for the investigation, preservation and recording of matters of archaeological or historical interest and (in connection therewith) for the regulation of operations or activities affecting such matters; to provide for the recovery of grants under section 10 of the Town and Country Planning (Amendment) Act 1972 or under section 4 of the Historic Buildings and Ancient Monuments Act 1953 in certain circumstances; and to provide for grants by the Secretary of State to the Architectural Heritage Fund.
Planning (Listed Buildings and Conservation Areas) Act (1990)	This Act changed laws relating to the granting of planning permission for building works, with a particular focus on listed buildings and conservation areas. It created special controls for the demolition, alteration or extension of buildings, objects or structures of particular architectural or historic interest, as well as conservation areas.
Historic Buildings and Ancient Monuments Act 1953	An Act to provide for the preservation and acquisition of buildings of outstanding historic or architectural interest and their contents and related property, and to amend the law relating to ancient monuments and other objects of archaeological interest.
Levelling-up and Regeneration Act 2023	This Act allows for the amendment of the Town and Country Planning Act 1990 to require “special regard [be had] to the desirability of preserving or enhancing” the designated heritage assets set out in S.102.
National Highways, On the Road to Good Design	<p>Aimed at developers, the On the Road to Good Design provides project teams with independent advice on good design. It helps schemes deliver positive impacts for local communities and better environmental outcomes. It also provides tangible benefits to National Highways in terms of implementing best practice and working efficiently.</p> <p>This also includes good design to conserve and enhance the historic environment.</p>
Local	
Dorset Council (2021) Art, Statues and Monuments on the Highway Policy	<p>Where safe to do so Dorset Council will support the erection and display of permanent art, statues and monuments proposed by and to be maintained by local parishes, towns, and Dorset Council.</p> <p>Dorset Council will only process applications that have local community support including support from the local council member or members.</p> <p>Objectives:</p> <ul style="list-style-type: none"> ■ to manage the erection of art, statues, or monuments that enhance the highway environment

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ to ensure that any art, statues or memorials have the support of the local community including support from the local Council member or members ■ to ensure that any art, statues or memorials placed in the highway are formally assessed for safety ■ to ensure the costs of assessment, erection, ongoing maintenance and removal are provided for ■ to ensure that any art, statues or memorials have received other appropriate legislative consent, such as planning consent before they are assessed by the highway authority ■ to ensure that the full costs of assessing and consenting are recovered ■ to ensure that the Council is indemnified against any related claims or damage
Dorset History Centre - Collections Care and Conservation Policy 2020 to 2023	<p>The Joint Archives Service (JAS), based at Dorset History Centre (DHC) is funded by and operated on behalf of Bournemouth, Christchurch and Poole (BCP) Council and Dorset Council.</p> <p>This policy provides a framework for the JAS in caring for and managing the records held at Dorset History Centre for future generations and in providing appropriate access to the archives and the information contained within them.</p>
Dorset National Landscape Management Plan 2019-2024	<p>The Dorset Area of Outstanding Natural Beauty Partnership is working towards a future in which the management of the landscape and designation is the best example of how protected landscapes can stimulate truly sustainable development and land management. The vision for the community of the National Landscape:</p> <ul style="list-style-type: none"> ■ sustainable rural communities are thriving and housed affordably, enjoying a range of health and wellbeing benefits afforded by a wonderful environment ■ there is a range of active travel options and wide access to the countryside ■ the landscape's natural and cultural heritage is the basis for a wide range of education, learning and volunteering opportunities for all ages; it inspires ongoing research and artistic endeavour
Cranborne Chase Partnership Plan 2019-2024	<p>The Plan presents the special qualities and features of the AONB and determines what actions are required to ensure their conservation and enhancement. It explains the significance of this AONB and describes its outstanding landscapes, focussing on conserving and enhancing them, sustaining living and working landscapes, and the special landscapes to enjoy.</p> <p>The vision: <i>'In 2030, the Cranborne Chase AONB will be an inspirational example of sustainable management in action.'</i></p> <p>A nationally appreciated place where:</p> <ul style="list-style-type: none"> ■ its distinctive local landscapes, historic heritage, and wildlife are conserved and enhanced by those who work and manage the land. nurturing a valued and treasured countryside for future generations. ■ its healthy soils, clean air and water are appreciated, prized and respected by all.

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ its characteristic vibrant villages, profoundly rural character, and local sense of pride are tangible to all who live and visit here, or just pass through. ■ the breadth and depth of historic land use offers up its stories in the landscape today. ■ its cultural heritage is conserved, understood, enhanced, valued and enjoyed. ■ the aesthetic qualities of the landscape and environment, along with the sense of wonder and enjoyment, are appreciated by all. ■ the quality of life remains high and the aspirations of those who live and work here are supported. <p>Ambitions:</p> <ul style="list-style-type: none"> — The historic and cultural environment of the AONB is conserved and enhanced. — Everyone understands, values and enjoys its cultural and heritage assets. — The story of the area's evolution over time should be clear to everyone. — Light pollution will be minimised to benefit of human health, wildlife, reducing expenditure and carbon emissions, bringing new opportunities for education and rural tourism
Jurassic Coast Partnership Plan 2020 to 2025	<p>The vision: <i>'World Heritage Status in Dorset and East Devon will inspire people to understand, celebrate and safeguard the Jurassic Coast for future generations.'</i></p> <p>The Strategic Aims of the Plan are:</p> <ul style="list-style-type: none"> 5 Protect the Site's Outstanding Universal Value and World Heritage Status. 6 Conserve and enhance the Site, its attributes, presentation and setting. 7 Inspire and engage people with the Site and deepen their understanding of its values. 8 Maintain and improve access to and experience of the Site. 9 Enable the Site's World Heritage Status to be of benefit to people and communities.
City of Bath, World Heritage Site Management Plan 2016-2022	<p>In 2016, the City of Bath World Heritage Site Steering Group adopted a six-year Management Plan for the site which seeks to ensure that the Outstanding Universal Value of the site and its setting is understood, protected and sustained. With this aim in mind, the underlying priorities of the plan are managing developing, transport, public realm, interpretation and education and environmental resilience.</p>
Cotswolds National Landscape Management Plan 2023 – 2025	<p>Outcome 8 – Historic environment and cultural heritage: The historic environment and cultural heritage of the National Landscape is better understood, conserved and enhanced.</p>

Plan, Policy, Programme Name	Key Messages
Stonehenge, Avebury and Associated Sites World Heritage Site Management Plan 2015	<p>The purpose of the Stonehenge, Avebury and Associated Sites World Heritage Site (WHS) Management Plan is to protect and sustain the Outstanding Universal Value of the WHS for this and future generations, and provide a framework for partnership working.</p> <p>Within the plan, 61 management issues have been identified and agreed by WHS partners and stakeholders. These form the basis for the aims and policies for the management of the WHS, as well as the 178 related actions set out in the complete Plan.</p> <p>The Plan's main themes are:</p> <ul style="list-style-type: none"> ■ planning and policy ■ boundaries of the WHS ■ conservation ■ visitor management and sustainable tourism ■ interpretation, learning and community engagement ■ roads and traffic ■ research ■ management, liaison and monitoring

Table A-6 – Water Environment

Plan, Policy, Programme Name	Key Messages
National	
The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017	<p>The Water Framework Directive (WFD) Regulations are an important mechanism for assessing and managing the water environment in the UK. It originates from the EU Water Framework Directive, but still forms part of UK law post-Brexit.</p> <p>The core aim of the Water Framework Directive is to protect the UK's water environments by preventing their deterioration and improving their quality.</p>
The Floods and Water (Amendment etc.) (EU Exit) Regulations 2019	<p>These regulations aim to ensure that, following the withdrawal of the UK from the EU, legislation in the fields of water and floods continues to operate correctly.</p>

Plan, Policy, Programme Name	Key Messages
	To that end they amend four primary Acts (the Water Act 1989, the Water Industry Act 1991, the Water Resources Act 1991 and the Water Act 2014)
National Planning Policy Framework (NPPF) (2023)	Paragraph 165 "... inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere".
The Environment Act (2021)	<p>The Environment Act, which became law in 2021, acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction.</p> <p>Objectives for targets under consideration:</p> <ul style="list-style-type: none"> ■ Reduce pollution from agriculture, in particular phosphorus and nitrate ■ Reduce pollution from wastewater, in particular phosphorus and nitrate ■ Reduce water demand ■ Improve the quality of habitat on land, including freshwater and coastal sites, expressed through the condition of our protected sites (SSSIs) ■ Improve the overall status of species populations on land and in freshwaters
National Policy Statement for National Networks (2024)	<p>Paragraph 5.254: The planning system should contribute to and enhance the natural and local environment by, amongst other things, preventing both new and existing development from contributing to, or being put at unacceptable risk from, or being adversely affected by, water pollution. [...] Where applicable, an application for a Development Consent Order has to have regard to the water body objectives of the River Basin Management Plan where the project is located and avoid or mitigate deterioration of water bodies in the area.</p> <p>Paragraph 5.257: Applicants should consider protective measures to control the risk of pollution to groundwater; this could include, for example, the use of protective barriers.</p>
A Green Future: Our 25 Year Plan to Improve the Environment (2018) - Goal 2 'Clean and plentiful water'	"Improve at least three quarters of our waters to be close to their natural state as soon as is practicable by: [...] Reaching or exceeding objectives for rivers, lakes, coastal and ground waters that are specially protected, whether for biodiversity or drinking water".

Plan, Policy, Programme Name	Key Messages
Water Targets: Detailed Evidence Report, Department for Environment Food and Rural Affairs (2022)	The Environment Agency regularly assesses the water quality of the UK's waterbodies, however many of these are not achieving the required standards and are often prevented by a number of factors and are described as 'Reasons for Not Achieving Good Status (RNAGS)'. Such pressures include pollution from towns, cities and transport affecting 18% of water bodies.
Flood and Water Management Act (2010)	<p>The Flood and Water Management Act 2010 requires Risk Management Authorities to:</p> <ul style="list-style-type: none"> ■ Co-operate with each other. ■ Act in a manner that is consistent with the National Flood and Coastal Erosion Risk Management Strategy for England and the local flood risk management strategies developed by Lead Local Flood Authorities ■ Exchange information. ■ Risk Management Authorities have flexibility to form partnerships and to act on behalf of one another.
Local	
Bristol Avon Catchment Plan 2022 - 2027	<p>The Catchment Plan for Bristol Avon aims to:</p> <ul style="list-style-type: none"> ■ Enhance people's enjoyment and connection with the water environment ■ Improve water quality ■ Restore biodiversity and ecological connectivity ■ Adapt and build resilience to a changing climate
Bristol Avon Flood Strategy, 2021	The Strategy aims to protect Bristol and create a more active, sustainable and resilient city. It is the long-term plan to better protect Bristol from rising sea-levels and future flood events and enhance the river for all.
Severn River Basin Management Plan 2021-2027	The purpose of a river basin management plan is to provide a framework for protecting and enhancing the benefits provided by the water environment. This Plan also notes the significant water management issues facing the Severn river basin. To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning.

Plan, Policy, Programme Name	Key Messages
South West Marine Plan (2016)	The South West Marine Plan introduces a strategic approach to planning within the inshore and offshore waters between the River Severn border with Wales and the River Dart in Devon. It provides a clear, evidence-based approach to inform decision-making by marine users and regulators on where activities might take place within the marine plan areas.
Wessex Water - Water Resource Management Plan	The Wessex water resources management plan sets out how, over the next 25 years, Wessex Water will balance water supplies with water demands to ensure adequate water supply for our customers, whilst also protecting the environment. Water companies are required to prepare and maintain a water resources plan on a five-yearly cycle. The plan is produced following guidance provided by the Environment Agency, our environmental regulator, and in accordance with direction from Defra.
Environment Agency (2022) South West river basin district (RBD) river basin management plan	<p>Describes the pressures facing the water environment and the actions that will address them, particularly in relation to water quality. The environmental objectives covered by the plan are:</p> <ul style="list-style-type: none"> ■ preventing deterioration of the status of surface waters and groundwater ■ achieving objectives and standards for protected areas ■ aiming to achieve good status for all water bodies ■ reversing any significant and sustained upward trends in pollutant concentrations in groundwater ■ cessation of discharges, emissions and losses of priority hazardous substances into surface waters ■ progressively reducing the pollution of groundwater and preventing or limiting the entry of pollutants
Dorset County Council (2014) Local Flood Risk Management Strategy	<p>The vision of Dorset's Local Flood Risk Management Strategy is to see everyone <i>'Working together to manage local flood risk in Dorset so communities are resilient and prepared for flooding'</i>.</p> <p>The aims of the strategy have been developed to meet the Strategy's vision. They focus on three main elements of: community, economy and the environment. The aims of the strategy are as follows:</p> <ul style="list-style-type: none"> ■ Reduce risk to life and the impact of flooding to communities, whilst safeguarding vulnerable residents; ■ Reduce the risk of flood damage to properties and businesses so as to develop a flood resilient economy within Dorset; ■ Work together towards integrated and holistic catchment flood management. <p>Local objectives that have been developed to describe how the aims and vision of the strategy will be met are as follows:</p> <ul style="list-style-type: none"> ■ Objective 1: Understand flood risk across Dorset; ■ Objective 2: Manage the likelihood and impact of flooding; ■ Objective 3: Help Dorset's communities manage their own flood risk; ■ Objective 4: Ensure flood risk is considered in local land development proposals; ■ Objective 5: Improve flood prediction, warning, response and post flood recovery.

Plan, Policy, Programme Name	Key Messages
Dorset Coast Forum (2009) Christchurch Harbour & Waterways Management Plan	<p>The Plan has three aims:</p> <ul style="list-style-type: none"> ■ To provide a framework for the safe and sustainable use and management of Christchurch Harbour and its waterways ■ To ensure that all users work together to conserve and enhance the biodiversity and cultural features of the harbour and waterways ■ To enhance the harbour's value and appeal to local communities
Dorset Council (2023) Dorset Council Harbours Strategy 2022 to 2032	<p>The Dorset Harbours Strategy sets out the future direction of management for Weymouth, Lyme Regis and Bridport (West Bay) harbours and how each of these unique and valued harbours will develop over ten years from 2022 to 2032. It presents a set of strategic goals which will help achieve the vision to have <i>“Thriving Dorset harbours at the heart of our communities”</i>.</p> <p>The strategic goals are:</p> <ul style="list-style-type: none"> ■ to maintain safe working harbours and provide high quality infrastructure and facilities ■ to strengthen relationships with harbour users and stakeholders and work in partnership to achieve common goals ■ to be a premium destination by supporting existing and developing leisure, tourism, and commercial sectors, making a significant contribution to the local and blue economy ■ to have a balanced budget whilst building the ability for investment into the harbours ■ to celebrate each harbour’s natural and cultural heritage by integrating the harbours into the community and linking with the wider natural and cultural offer ■ to protect Dorset’s natural capital by operating best practice in environmental management of the harbours
Poole Harbour Aquatic Management Plan (2024)	<p>The Aquatic Management Plan has been implemented to promote the safe and sustainable use of Poole Harbour, balancing the demands on its natural resources, minimising risks and resolving conflicts of interest.</p> <p>This updated version of the Poole Harbour Aquatic Management Plan has consolidated and updated its previous iterations (1994, 2006 and 2011), and the 1998 Poole Harbour Management Policies, and has drawn on many other current planning and guidance documents. This document is a non-statutory Plan produced by the Poole Harbour Steering Group, a voluntary partnership made of Poole Harbour Commissioners, Bournemouth, Christchurch and Poole Council, Dorset Council, Environment Agency, Marine Management Organisation, Natural England, Southern Inshore Fisheries and Conservation Authority and Wessex Water Services Ltd.</p> <p>This aim is to be achieved through the following objectives:</p> <ul style="list-style-type: none"> ■ To provide a framework for the co-ordinated management of the Harbour. ■ To improve communications between Harbour users and regulators. ■ To promote the safe use of the Harbour for all. ■ To educate and promote amongst Harbour users the sustainable and wise use of the Harbour for commerce, recreation, and amenity. ■ To protect and maintain the special natural features of the Harbour.

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ To create a culture of openness and an awareness of other users.
Wiltshire Local Flood Risk Management Strategy, 2014	<p>Wiltshire Council's Local Flood Risk Strategy seeks to:</p> <ul style="list-style-type: none"> ■ Improve knowledge regarding flood risk ■ Improve protection from flooding ■ Improve resilience to flooding ■ Improve the environment ■ Improve communications about flooding issues
Gloucestershire Local Flood Risk Management Strategy, 2014	<p>The aim of this Strategy is to work in partnership with local communities, and organisations responsible for managing flood risk, in order to better understand and reduce local flood risk in Gloucestershire where it is economically, technically, socially, and environmentally feasible to do so.</p> <p>To achieve this aim there are a number of key strategic objectives. The six key strategic objectives for the Strategy are:</p> <ul style="list-style-type: none"> ■ improve our understanding of local flood risk; ■ put in place plans to manage these risks; ■ avoid inappropriate development and ensure new development does not increase flooding elsewhere; ■ increase public awareness of flooding and encourage local communities to take action; ■ ensure close partnership working and co-ordination with other risk management authorities in Gloucestershire, and; ■ support response to, and recovery from, flooding incidents.
Thames River Basin Management Plan 2022	<p>The purpose of a river basin management plan is to provide a framework for protecting and enhancing the benefits provided by the water environment. This Plan also notes the significant water management issues facing the Severn river basin. To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning.</p> <p>Describes the pressures facing the water environment and the actions that will address them, particularly in relation to water quality. The environmental objectives covered by the plan are:</p> <ul style="list-style-type: none"> ■ preventing deterioration of the status of surface waters and groundwater ■ achieving objectives and standards for protected areas ■ aiming to achieve good status for all water bodies ■ reversing any significant and sustained upward trends in pollutant concentrations in groundwater ■ cessation of discharges, emissions and losses of priority hazardous substances into surface waters ■ progressively reducing the pollution of groundwater and preventing or limiting the entry of pollutants

Table A-7 – Air Quality

Plan, Policy, Programme Name	Key Messages
<i>International</i>	
Ambient Air Quality Directive (2008)	The Ambient Air Quality Directive provides the current framework for the control of ambient concentrations of air pollution in the EU. The control of emissions from mobile sources, improving fuel quality and promoting and integrating environmental protection requirements into the transport and energy sector are part of these aims.
<i>National</i>	
The Environment Act (2021)	<p>The Environment Act, which became law in 2021, acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction.</p> <p>Objectives for targets under consideration:</p> <ul style="list-style-type: none"> ■ Reducing the annual mean level of fine particulate matter (PM2.5) in ambient air (as required by the Environment Bill) ■ In the long-term, reducing population exposure to PM2.5
25 Year Environment Plan, HM Government (2018)	With regards to the transport sector, the 25 Year Environment Plan identifies four 'early' priorities through the 'Future of Mobility Grand Challenge'. These include encouraging new modes of transport; addressing the challenges of moving from hydrocarbon to zero emission vehicles; and Preparing for a future of new mobility services, increased autonomy, journey-sharing and a blurring of the distinctions between private and public transport.
The Clean Growth Strategy (2017)	<p>This Strategy sets out a comprehensive set of policies and proposals that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions.</p> <p>Key Policies and Proposals in the Strategy:</p> <ul style="list-style-type: none"> ■ Develop world leading Green Finance capabilities; ■ Develop a package of measures to support businesses to improve their energy productivity, by at least 20 per cent by 2030; ■ Improving the energy efficiency of our homes; ■ Rolling out low carbon heating; ■ Accelerating the shift to low carbon transport; ■ Delivering clean, smart, flexible power emissions; and ■ Enhancing the benefits and value of our natural resources.

Plan, Policy, Programme Name	Key Messages
National Policy Statement for National Networks (2014)	Paragraph 5.12 - Accords air quality considerations substantial weight where, after taking into account mitigation, a scheme would lead to a significant air quality impact in relation to Environmental Impact Assessment (EIA) and/ or where they lead to deterioration in air quality in a zone/ agglomeration.
Clean Air Strategy (2019)	Addresses action to reduce emissions from transport “as a significant source of emissions of air pollution”, in-particular oxides of nitrogen (NO _x) – which is responsible for high levels of NO ₂ in ambient air, especially in urban areas - and particulate (PM ₁₀ and PM _{2.5}) emissions.
The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023)	<p>The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (FMP Regs 2023) sets the legally binding PM_{2.5} annual mean and exposure reduction targets to be met by 31 December 2040 and outlines the monitoring methods and assessment processes for national compliance.</p> <p>Key targets include:</p> <ul style="list-style-type: none"> ■ A legally binding annual mean concentration target (AMCT) for ambient PM_{2.5} - 10µg/m³ to be met by 31 December 2040 (FMP Regs 2023). An interim target of 12µg/m³ should be met by 31 January 2028 (EIP 2023) ■ NO₂ and PM₁₀ legal objectives remain unchanged
Environmental Improvement Plan (2023)	<p>Environment Improvement Plan 2023 (EIP 2023) sets interim annual mean and exposure reduction targets to be met by 31 January 2028.</p> <p>Key targets include:</p> <ul style="list-style-type: none"> ■ A legal target to reduce population exposure to PM_{2.5} by 35% in 2040 compared to 2018 levels, with a new interim target to reduce by 22% by the end of January 2028 ■ Legal concentration limits for a number of other key pollutants. We already meet the majority of these limits including for sulphur dioxide and coarse particulate matter. We are working towards meeting compliance with a 40µg/m³ limit for nitrogen dioxide ■ A legal target to require a maximum annual mean concentration of 10 micrograms of PM_{2.5} per cubic metre (µg/m³) by 2040, with a new interim target of 12 µg/m³ by the end of January 2028 ■ Legal emission reduction targets for five damaging pollutants by 2030 relative to 2005 levels: <ul style="list-style-type: none"> — Reduce emissions of nitrogen oxides by 73% — Reduce emissions of sulphur dioxide by 88% — Reduce emission of PM_{2.5} by 46% — Reduce emissions of ammonia by 16% — Reduce emissions of non-methane volatile organic compounds by 39%.

Plan, Policy, Programme Name	Key Messages
Air Quality Strategy: framework for local authority delivery (AQS Framework 2023).	<p>Air Quality Strategy: framework for local authority delivery (AQS Framework 2023) sets the strategic framework for LAs and other partners – ‘local partners’. It sets the powers, responsibilities, and further actions the government expects local partners to take.</p> <p>It outlines the key actions for both local partners and the UK government. Includes potential repercussions for failure to reduce PM2.5 concentrations “In light of the new targets, if we consider further action to be insufficient, we will consult on introducing a standalone legal duty on local authorities to take action to reduce PM2.5 emissions.”</p>
Local	
Dorset Council and BCP Council (2020) Dorset Heathlands Interim Air Quality Strategy	<p>The aim of this Strategy is to address the adverse effect of airborne nitrogen upon the Dorset Heathlands designated sites by contributing to the achievement of the conservation objectives for air quality and in doing so, facilitate the delivery of planned development.</p> <p>The objectives are:</p> <ul style="list-style-type: none"> ■ Contributing to the achievement of the conservation objectives of the Dorset Heathlands; ■ Facilitating the delivery of planned development; ■ Encouraging modal shift to reduce the number of trips by combustion engine vehicles; ■ Accelerating the shift to zero emission vehicles; ■ Working pro-actively with the agricultural sector to implement measures; and ■ Multi-layering projects to provide other benefits to include: <ul style="list-style-type: none"> — improved air quality for public health; — net gain in biodiversity; and — helping towards achievement of the Council’s climate and ecological emergencies.
Dorset Council and BCP Council (2020) Dorset Heathlands Interim Air Quality Strategy	<p>The aim of this Strategy is to address the adverse effect of airborne nitrogen upon the Dorset Heathlands designated sites by contributing to the achievement of the conservation objectives for air quality and in doing so, facilitate the delivery of planned development.</p> <p>The objectives are:</p> <ul style="list-style-type: none"> ■ Contributing to the achievement of the conservation objectives of the Dorset Heathlands; ■ Facilitating the delivery of planned development; ■ Encouraging modal shift to reduce the number of trips by combustion engine vehicles; ■ Accelerating the shift to zero emission vehicles; ■ Working pro-actively with the agricultural sector to implement measures; and ■ Multi-layering projects to provide other benefits to include: <ul style="list-style-type: none"> — improved air quality for public health; — net gain in biodiversity; and

Plan, Policy, Programme Name	Key Messages
	— helping towards achievement of the Council's climate and ecological emergencies.
West of England Combined Authority Joint Local Transport Plan 4	<p>There are five outcomes associated with air quality within the JLTP4:</p> <ul style="list-style-type: none"> ■ NOx, particulates and carbon emissions are reduced ■ Air quality in the AQMAs is improved ■ Air quality remains better than national standards outside the AQMAs ■ The transport network is resilient and adaptable ■ Technological advances to improve air quality and monitoring are embraced
West of England Combined Authority Bus Service Improvement Plan	<p>This Bus Service Improvement Plan (BSIP) sets out our ambitious targets to: 'reduce bus journey times by 10%, ensure 95% of services run on time, return to pre-pandemic patronage by 2025 and continuing to grow beyond that, increase passenger satisfaction and aim for all buses to be zero emission by 2030'. It aims to improve local air quality, support transport decarbonisation, and improve the health and wellbeing of people in our communities by:</p> <ul style="list-style-type: none"> ■ Making the bus convenient ■ Making the public transport network co-ordinated ■ Delivering a positive customer experience
Western Gateway Strategic Transport Plan (2020-2025)	The Strategic Transport Plan sets out the plans for how future transport provision can support future prosperity, health and protection of the Western Gateway region, which includes the Combined Authority, for residents, visitors and businesses.
Bristol Transport Strategy (2019)	<p>The Bristol Transport Strategy focuses the Joint Local Transport Plan to a city-level and sets out the transport vision for Bristol for the next 20 years. The vision for the Bristol Transport Strategy is:</p> <p>'To be a well-connected city that enables people to move around efficiently with increased transport options that are accessible and inclusive to all. We will deliver an improved sustainable and resilient transport network that supports Bristol's vibrant independent local centres and neighbourhoods and connects to an attractive and thriving city centre.'</p>
Bristol Cycling Strategy (2015)	The Strategy's vision is that: 'Bristol city will be happy and healthy through cycling by allowing our citizens to move conveniently and with low impact throughout the city, with cycling being an easy and normal option to get around.'
Bristol Parking Strategy	The Strategy aims to reduce the unnecessary use of private cars, particularly in the city centre, encourage alternative modes of transport, guide appropriate scale, location and standards for all private and public parking and recognises its important in travel-related behaviour change.

Plan, Policy, Programme Name	Key Messages
Bath Air Quality Action Plan (2011)	The city centre of Bath and key roads within the city have a finalised AQAP to manage the air pollution of concern, nitrogen dioxide (NO ₂). The AQMA is due to be updated by measures within the ongoing consultation of the Bath Clean Air Action Plan.
Farrington Gurney and Temple Cloud Air Quality Action Plan 2023-2028 – Bath and North East Somerset	In Bath and North East Somerset, an AQAP has been prepared for the villages of Farrington Gurney and Temple Cloud to manage the air pollution of concern, nitrogen dioxide (NO ₂). Proposed measures in this AQAP should reduce concentrations of NO ₂ within both AQMAs.
Keynsham and Saltford Air Quality Action Plan – Bath and North East Somerset (2016)	In Bath and North East Somerset, Keynsham High Street and the A4 in Saltford have a finalised AQAP to manage the air pollution of concern, nitrogen dioxide (NO ₂). Nineteen measures in Keynsham and 14 measures in Saltford are highlighted in the AQAP which should reduce concentrations of NO ₂ within both AQMAs.
North Somerset Local Air Quality Strategy (LAQS)	The development of this LAQS for the area aims to ensure that the North Somerset council moves towards a healthier community with a better quality of life and environment through actions and initiatives to improve air quality locally. This requires the integration of air quality considerations into the various planning functions of local authorities, including land-use planning and planning control, transport, economic development and environmental and sustainable planning.
South Gloucestershire Clean Air Strategy 2020-2024	<p>The Strategy's vision is to: 'Protect and enhance health and wellbeing, the environment, and sustainable economic growth through improved air quality across South Gloucestershire.' There are three strategic aims to achieve this:</p> <ul style="list-style-type: none"> ■ Address air pollution hotspots to reduce inequalities by continuing to work to meet all statutory duties regarding air pollution ■ Build on the statutory duties by delivering an ongoing reduction in nitrogen dioxide (NO₂), and particulate matter to reach WHO target levels across the whole of South Gloucestershire by 2025 ■ Reduce the fraction of mortality attributable to particulate air pollution so that it matches or is better than the South West region average by 202
Kingswood and Staple Hill Air Quality Action Plan – South Gloucestershire	In South Gloucestershire, Kingswood along Regent Street (A420) and Staple Hill at the Broad Street (A4175) High Street (B4465), Victoria Street and Soundwell Road (A4017) crossroads have a finalised AQAP to manage the air pollutant of concern, nitrogen dioxide (NO ₂). Measures highlighted in the AQAP should reduce concentrations of NO ₂ within both AQMAs.

Plan, Policy, Programme Name	Key Messages
Gloucestershire Air Quality and Health Strategy	<p>The Gloucestershire Air Quality and Health strategy describes the strategic approach in Gloucestershire to improving air quality and mitigating its impact on health as it relates to nitrogen oxides and particular matter (with recognition that this scope may increase as evidence and priorities develop).</p> <p>The strategy has been developed to be delivered through a partnership approach across agencies, professionals and members of the public who are active in Gloucestershire.</p> <p>The vision of the strategy is: <i>“For organisations, professionals and the public across Gloucestershire to work together to improve air quality in the county and reduce the impact of air pollution on human health and the environment. To contribute to the vision of Gloucestershire as a prosperous, happy, healthy, and sustainable county”.</i></p> <p>The key aims of the strategy are to:</p> <ul style="list-style-type: none"> ■ Bring about a significant and measurable improvement to air quality in Gloucestershire through joined-up working to implement cost-effective measures. ■ Reduce the impact of poor air quality on the health of residents, workers and visitors, and the environment. ■ Raise public awareness of air quality, its impact on health and personal protection measures in order to promote sustainable behaviour change. ■ Increase our understanding of the state of air quality in Gloucestershire and the impact of measures to improve air quality. ■ Meet and exceed statutory obligations and national targets on air quality.
Air Quality Strategy for Wiltshire 2019-2024	<p>This strategy focuses on improving air quality across Wiltshire, seeks to prevent any further deterioration and encourage interventions that will reduce concentrations of nitrogen dioxide and fine particulates across the county.</p> <p>The objectives of the strategy are:</p> <ul style="list-style-type: none"> ■ To meet the annual average and hourly mean LAQM objective and EU limit for nitrogen dioxide. ■ To meet the annual average and 24 hour mean LAQM objectives and EU limits for Fine Particulates (PM10). <p>To achieve these objectives, the strategy outlines the following anticipated changes:</p> <ul style="list-style-type: none"> ■ reduced use of private cars ■ better informed strategic planning ■ increased use of public transport ■ more people being active ■ provision of increased infrastructure for cycling and walking ■ increase use of alternatives to fossils fuels ■ increased active travel ■ fewer people dying from respiratory and cardiovascular disease and cancer ■ improve the wellbeing of those who suffer from respiratory and cardiovascular disease

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ contribute to climate change reduction ■ more sustainable development ■ a reduction in health inequalities

Table A-8 – Greenhouse Gases and Climate Change

Plan, Policy, Programme Name	Key Messages
International	
Kyoto Protocol to the UN Framework Convention on Climate Change (1992) Doha Amendment to the Kyoto Protocol (2012)	Developed countries committed themselves to reducing their collective emissions of six key greenhouse gases by at least 5%. Each country's emissions target were to be achieved by the period 2008-2012. Doha Amendment saw parties commit to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020.
The Paris Agreement, 2015	Aims to limit the global warming change to below 2°C above pre-industrial levels. However, countries aim to limit the increase to 1.5°C to reduce the impacts of global warming. The EU has committed to a binding target of a reduction of at least 40% in greenhouse gas emissions by 2030 compared to 1990.
UN Climate Change Conference, 2023 (COP28)	COP28 was marked the conclusion of the first 'global stocktake' of the world's efforts to address climate change under the Paris Agreement. Having shown that progress was too slow across all areas of climate action – from reducing greenhouse gas emissions, to strengthening resilience to a changing climate, to getting the financial and technological support to vulnerable nations – countries responded with a decision on how to accelerate action across all areas by 2030. This includes a call on governments to speed up the transition away from fossil fuels to renewables such as wind and solar power in their next round of climate commitments.
National	
Environment Act (2021)	An Act to make provision about targets, plans and policies for improving the natural environment; for statements and reports about environmental protection; for the Office for Environmental Protection; about waste and resource efficiency; about air quality; for the recall

Plan, Policy, Programme Name	Key Messages
	of products that fail to meet environmental standards; about water; about nature and biodiversity; for conservation covenants; about the regulation of chemicals; and for connected purposes.
A Green Future: Our 25 Year Plan to Improve the Environment (2018)	<p>The 25 Year Environment Plan outlines the UK Government’s ambition to leave our environment in a better state than we found it and the steps proposed to take to achieve that ambition.</p> <p>Mitigating and adapting to climate change:</p> <ul style="list-style-type: none"> ■ Continuing to cut greenhouse gas emissions including from land use, land use change, the agriculture and waste sectors and the use of fluorinated gases. The UK Climate Change Act 2008 commits us to reducing total greenhouse gas emissions by at least 80 per cent by 2050 when compared to 1990 levels ■ Making sure that all policies, programmes and investment decisions take into account the possible extent of climate change this century ■ Implementing a sustainable and effective second National Adaptation Programme
National Planning Policy Framework (NPPF) (2023)	<p>Paragraph 159 of the NPPF states that “New development should be planned for in ways that:</p> <ol style="list-style-type: none"> a) Avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure b) Can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the UK Government’s policy for national technical standards.”
The Climate Change Act (2008)	<p>Improve carbon management and help the transition towards a low carbon economy in the UK.</p> <p>Demonstrate strong UK leadership internationally, showing the commitment to taking shared responsibility for reducing global emissions in the context of developing negotiations on a post-2012 global agreement at Copenhagen in 2009. Greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline.</p>
Department for Transport, National Policy Statement for National Networks (NN NPS) (2024)	<p>Paragraph 5.36 states: Applicants should look for opportunities within the design of the proposed development to embed nature-based or technological solutions to mitigate, capture or offset the emissions of construction.</p> <p>Paragraph 5.37 states: ‘Steps taken to minimise, capture and offset emissions in design and construction, should be set out in the carbon management plan, secured under the Development Consent Order. This could include, for example, mitigation through woodland creation</p>



Plan, Policy, Programme Name	Key Messages
	on or adjacent to the site, contributing to offsetting residual emissions. Applicants may wish to refer to the Institute of Environmental Management and Assessment Greenhouse Gas Management Hierarchy guidance when drafting their application'
UK Committee on Climate Change, Sixth UK Carbon Budget	<p>The UK has committed to an 80% reduction in its greenhouse gas emissions by 2050. In order to help meet this target, the UK Committee on Climate Change (CCC) has devised a series of interim UK "carbon budgets" as follows:</p> <ul style="list-style-type: none"> ■ 1st carbon budget (2008 to 2012): 23% reduction ■ 2nd carbon budget (2013 to 2017): 29% reduction ■ 3rd carbon budget (2018 to 2022): 35% reduction by 2020 ■ 4th carbon budget (2023 to 2027): 50% reduction by 2025 ■ 5th carbon budget (2028 to 2032): 57% reduction by 2030
The Net Zero Strategy, 2021	<p>This strategy is a long-term plan for a transition that will take place over the next three decades. There are four overarching principles:</p> <ol style="list-style-type: none"> 1. We will work with the grain of consumer choice: no one will be required to rip out their existing boiler or scrap their current car 2. We will ensure the biggest polluters pay the most for the transition through fair carbon pricing 3. We will ensure that the most vulnerable are protected through Government support in the form of energy bill discounts, energy efficiency upgrades, and more. 4. We will work with businesses to continue delivering deep cost reductions in low carbon tech through support for the latest state of the art kit to bring down costs for consumers and deliver benefits for businesses.
Local	
Dorset Council (2023) Natural Environment, Climate and Ecology Strategy 2023 to 25 Refresh	<p>The vision for the Strategy: <i>'Our vision is for a carbon neutral, nature positive and resilient Dorset achieved through a clean, green and fair transition and that generates prosperous, stronger and healthier communities.'</i></p> <p>The strategy is focused on three pillars:</p> <ul style="list-style-type: none"> ■ climate change: Cutting our greenhouse gas emissions ■ biodiversity loss: Helping nature to recovery by protecting and enhancing our land, rivers and seas ■ environmental resilience: Adapting for the impacts of unavoidable environmental change <p>The strategy is focused on three broad issues:</p> <ul style="list-style-type: none"> ■ how we power and heat things ■ how we build, make and dispose of things

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ how we use our land, rivers and seas <p>At its heart are nine core missions:</p> <ul style="list-style-type: none"> ■ renewable generation ■ heat decarbonisation ■ energy and water efficiency ■ road transport decarbonisation and modal shift ■ sustainable development and construction ■ sustainable consumption, waste and circularity ■ sustainable food ■ natural assets and nature-based solutions ■ resilience and adaptation <p>Overall it has four broad outcomes it aims to achieve:</p> <ul style="list-style-type: none"> ■ Net Zero Council 2040 and Net Zero Dorset 2050: Net zero emissions from power, heat, transport, construction, food, consumables and waste ■ Nature Positive Dorset 2030: At least 30% of our land, rivers and seas and nature-positive by 2030 ■ prosperity through green growth: Green jobs, skills and investment for low carbon and nature sectors ■ stronger, healthier communities: Healthier, cheaper to run homes and safer more resilient communities
Dorset Council (2023) Electric Vehicle Strategy 2021 to 2023	<p><i>‘Our vision is to create a reliable and accessible charging infrastructure for residents, businesses and visitors that helps Dorset become carbon neutral by 2050.’</i></p> <p>The Strategy covers the following:</p> <ul style="list-style-type: none"> ■ EV1 - Destination charging ■ EV2 - Residential charging ■ EV3 - Charging hubs ■ EV4 - Charging at Dorset Council sites ■ EV5 - Workplace charging ■ EV6 - Development policies ■ EV7 - Bus and taxi charging ■ EV8 - Renewable energy generation and supply for electric vehicle charging
West of England Combined Authority Climate and Ecological Strategy and Action Plan	<p>The Strategy sets out six priorities where action is needed and where the Combined Authority will deliver tangible progress to tackle the climate and ecological emergency. It sets out the long-term strategic approach, includes a short-term action plan and describes medium to long-term actions. The six priorities are:</p> <ul style="list-style-type: none"> ■ Transport ■ Buildings and Places



Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ Business and Skills ■ Net Zero Energy ■ Climate Resilience
West of England Combined Authority Joint Green Infrastructure Strategy (2020-2030) and Action Plan	<p>The Joint Green Infrastructure Strategy provides a multi-beneficial approach to strategy, policy and delivery in order to address:</p> <ul style="list-style-type: none"> ■ Inequalities in the provision of green infrastructure and health ■ Achieve well-designed, attractive and healthy places that deliver economic benefits and community resilience ■ Respond positively to the climate and ecological emergency
West of England Combined Authority Bus Strategy	<p>The Bus Strategy sets out how bus services will help the West of England Combined Authority tackle traffic congestion and reduce carbon emissions in the region. To do this it proposes an ambitious aim for a doubling of bus passenger journeys by 2036.</p>
West of England Combined Authority 10 Year Rail Delivery Plan 2020-2030	<p>The joint Network Rail and West of England Combined Authority 10 Year Rail Delivery Plan 2020 to 2030 aims to enhance local rail services, providing people with access to jobs and services from stations that are step free and on trains that are 'turn up and go' style fast and frequent, clean and carbon neutral.</p>
West of England Transport Delivery Plan 2021-2026	<p>The long-term aspiration for transport in the West of England is 'connecting people and places for a vibrant, inclusive and carbon neutral West of England'. The Plan outlined five key objectives:</p> <ul style="list-style-type: none"> ■ Take action against climate change and address poor air quality ■ Support sustainable and inclusive economic growth ■ Enable equality and improve accessibility ■ Contribute to better health, wellbeing, safety and security ■ Create better places
West of England Draft Electric Vehicle Charging Action Plan	<p>The draft Electric Vehicle Charging Action Plan (EVCAP) sets out the forecast number of EV charge points that will be needed by 2030 to help support the region's shift away from petrol and diesel cars and vans, and the number of charge points which are expected to require public sector intervention to ensure that people in the West of England have access to the chargers that they need to switch to EVs.</p>
Western Gateway Strategic Transport Plan (2020-2025)	<p>The Strategic Transport Plan considers all modes of transport within the context of strategic travel and provides a clear framework for future decision-making. Its aim is to deliver sustainable growth by ensuring the Western Gateway area is sustainably connected and provides high quality and value for money travel opportunities for all businesses, residents and visitors. It outlines the following as key challenges:</p> <ul style="list-style-type: none"> ■ The legacy of the Covid-19 and its impact on traditional journey patterns;

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> ■ The need to decarbonise the transport network with partner authorities declaring a Climate Emergency; ■ The importance of improving connectivity to support the delivery of sustainable growth; ■ The need to tackle rural accessibility gaps and develop sustainable solutions to maintaining rural transport networks; and ■ The need to reduce the productivity gap in the regions by removing travel constraints.
North Somerset Climate Emergency Action Plan (2022)	<p>The Strategy and Action Plan list transport as a key sector for emissions reduction in North Somerset, in order to decarbonise transport, North Somerset will aim to:</p> <ul style="list-style-type: none"> ■ Reduce total distance travelled by road by 25% by 2030; ■ Continue to drive project delivery to shift from private car use by acting on recommendations from the West of England transport decarbonisation study ■ Develop and secure funding for projects to grow the walking and cycling network across the district ■ Encourage our residents to consider their transport choices through parking schemes, car sharing schemes and other measures ■ Develop and deliver the Bus Service Improvement Plan Support transition to electric vehicles ■ Continue to develop the electric vehicle charging network
Bath and North East Somerset Council Climate Emergency Strategy and Action Plan 2019-2030	<p>The Strategy outlines four key priorities for Bath and North East Somerset:</p> <ul style="list-style-type: none"> ■ Decarbonise buildings ■ Decarbonise transport ■ Increase renewable energy generation ■ Cut council operational carbon emissions to net zero by 2030
Bath and North East Somerset Journey to Net Zero Transport Plan	<p>The vision for Bath and North East Somerset's Journey to Net Zero Transport plan is to:</p> <p>'Enhance its unique status by adopting measures that promote sustainable transport and decision making, whilst reducing carbon dioxide emissions and the intrusion of vehicles, particularly in the historic core. This will improve the quality of life for local people, enable more economic activity and growth, while enhancing the special character and environment of the city'.</p> <p>Key objectives outlined in the Plan include:</p> <ul style="list-style-type: none"> ■ Reducing vehicle carbon emissions to achieve carbon neutrality by 2030 ■ Improving air quality and health ■ Promoting sustainable mobility ■ Supporting and enabling economic growth, competitiveness and jobs ■ Widening travel choice ■ Widening access to opportunities: jobs/learning and training ■ Safeguarding and enhancing the unique historic environment and World Heritage Site status ■ Improving quality of life in the city

Plan, Policy, Programme Name	Key Messages
Bristol One City Climate Strategy and Bristol City Council Climate Emergency Action Plan 2022-2025	<p>The vision for the One City Climate Strategy is:</p> <p>'In 2030, Bristol is carbon neutral and climate resilient. We have collectively achieved a fair and inclusive transition, capturing the opportunities of new jobs and investment, improved health, wellbeing and education, and a better environment for local people. We have helped lead the way to a safer global climate.'</p>
South Gloucestershire Climate Emergency Strategy 2020-2030 and Action Plan (2024/25)	<p>The Strategy's vision is for 'a climate resilient South Gloucestershire with a thriving low-carbon economy and lifestyle reflected in our travel, homes, businesses and communities, where nature can flourish.' The Strategy lists 'Transport and Infrastructure' as a key theme that delivers cross-cutting benefits including walking and cycling projects, behaviour change projects such as public transport and mileage reduction, metrobus extension, investments in electric vehicles, reducing internal combustion engine use and how to reduce emissions from maintenance of key infrastructure such as roads. The 24/25 Action Plan lists area wide actions to achieve carbon neutrality:</p> <ul style="list-style-type: none"> ■ Maximise advice and support for active travel, support electric vehicle charging infrastructure roll-out ■ Work with the Combined Authority (plus the national and local highways authorities) to consider adaptation in transport planning ■ Deliver an area-wide active travel strategy and action plan and a suite of active travel projects ■ Continue to delivery low carbon road verge management ■ Commence delivery of Liveable Neighbourhoods ■ Support e-bike schemes, community led bike refurbishment schemes and active travel schools programmes
Gloucestershire Local Transport Plan, 2020-2041	<p>This LTP (adopted in March 2021) considers a more sustainable transport model. The plan seeks to optimise the existing transport network, support innovation and low carbon infrastructure.</p> <p>Within the strategy, overarching policy supports the transport strategy for the county and aims to protect the environment and increase journeys on foot, by bike, bus and rail. Specifically, LTP PD0.1 – Reducing Transport Carbon Emissions and Adapting to Climate Change.</p>
Gloucestershire Climate Change Strategy, 2020	<p>The vision of the Climate Change strategy is <i>"By 2045 we will create a carbon neutral county that provides quality of life now and for future generations, having improved the quality of our natural environment. By 2030 we will have reduced our carbon emissions by 80%"</i>.</p> <p>Some of the key actions of the strategy are:</p> <ul style="list-style-type: none"> ■ Gloucestershire Tree Strategy – commit to planting 35 million trees by 2030. Gloucestershire County Council will help by planting 1 million of these. ■ Establish £1m 'Action Fund' to incentivise carbon reduction and air quality improvements. ■ £1m energy efficiency invest to save loan fund. ■ Buy only 100% renewable electricity. ■ Generate electricity from the Javelin Park Energy from Waste facility to power around 25,000 homes a year.

Plan, Policy, Programme Name	Key Messages
	<ul style="list-style-type: none"> Tender a contract to deliver over 1000 new electric vehicle charging points by 2023, as part of a county-wide Electric Vehicle (EV) Strategy. On 23 June 2021, a draft Ultra Low Emissions Vehicles (ULEV) Strategy was taken to Cabinet.
Wiltshire Council, Climate Strategy 2022-2027	<p>The Climate Strategy sets out the council's journey to becoming a carbon neutral county from 2022-2027, covering seven delivery themes:</p> <ul style="list-style-type: none"> transport; built environment; waste; green economy; energy generation, storage and distribution; natural environment, food and farming; and carbon neutral council. <p>The Strategy also considers decarbonising the transport network, developing an active travel network and greener public transport initiatives.</p>
BCP Climate Action Plan, 2019	<p>BCP Council declared a Climate and Ecological Emergency on 16 July 2019 and followed this by considering and approving for consultation a draft Action Plan at its meeting on 16 December 2019. The Climate and Ecological Emergency Declaration committed BCP Council to becoming carbon neutral (or net-zero carbon) by 2030, including all Scope 1, 2 and 3 emissions.</p>

Table A-9 – Material Assets

Plan, Policy, Programme Name	Key Messages
National	
The Environment Act (2021)	<p>The Environment Act acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction.</p>

Plan, Policy, Programme Name	Key Messages
	<p>Objectives for targets under consideration:</p> <ul style="list-style-type: none"> ■ increase resource productivity; ■ reduce the volume of 'residual' waste we generate
National Planning Policy Framework (NPPF) (2023)	<p>Paragraph 180 states: "... contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> ■ Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils... ■ Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability...; ■ Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate" ■ Paragraph 215 to 223 also seeks to facilitate the sustainable use of minerals. <p>Paragraph 216 encourages so far as practicable, planning policies should <i>"take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously"</i>.</p>
National Policy Statement for National Networks (NN NPS) (2024)	<p>Paragraph 5.154 states that 'Where necessary, land contamination and instability should be considered in respect of new development. Specifically, proposals should be appropriate for the location, including preventing unacceptable risks from land contamination or instability. If land instability and/or land contamination may be an issue, applicants should seek appropriate technical and environmental expert advice from a competent person to prepare and carry out the appropriate assessments. Applicants should consult with the Coal Authority, Environment Agency and Local Authority if necessary'.</p>
A Green Future: Our 25 Year Plan to Improve the Environment (2018)	<p>Goal 5 'Clean and plentiful water' involves using resources from nature more sustainably and efficiently. The plan states: <i>"Improve our approach to soil management: by 2030 we want all of England's soils to be managed sustainably, and we will use natural capital thinking to develop appropriate soil metrics and management approaches"</i>.</p>
Out Waste, Our Resources: A Strategy for England (2018)	<p>Sets out how the UK Government aims to preserve material resources by minimising waste, promoting resource efficiency and moving towards a circular economy in England.</p>
Local	

Plan, Policy, Programme Name	Key Messages
Bournemouth, Christchurch, Poole and Dorset Mineral Sites Plan 2019	<p>The Bournemouth, Christchurch, Poole and Dorset Mineral Sites Plan 2019 identifies sites for mineral development to meet the county's needs.</p> <p>The policies in the Mineral Sites Plan allocate specific sites for development, identify more general areas considered to be potentially suitable for development and contain other proposals to facilitate the supply of minerals in the Plan area.</p>
Dorset Council (2023) Joint Municipal Waste Strategy for Dorset 2008 to 2033	<p>A joint strategy by the Dorset councils to guide the way that waste will be dealt with over the next 25 years. Policy objectives for the Strategy:</p> <ul style="list-style-type: none"> ■ Objective 1. Towards zero growth ■ Objective 2. Underpinning awareness and education ■ Objective 3. Recycling and composting ■ Objective 4. Optimised recycling services ■ Objective 5. Biodegradable waste ■ Objective 6. Residual waste ■ Objective 7. Cost efficient services ■ Objective 8. Encourage sustainable management of commercial waste ■ Objective 9. Sustainability within the local authorities ■ Objective 10. Working with others: listen, collaborate and influence
Jurassic Coast Partnership Plan 2020 to 2025	<p>The vision: <i>'World Heritage Status in Dorset and East Devon will inspire people to understand, celebrate and safeguard the Jurassic Coast for future generations.'</i></p> <p>The Strategic Aims of the Plan are:</p> <ul style="list-style-type: none"> ■ Protect the Site's Outstanding Universal Value and World Heritage Status. ■ Conserve and enhance the Site, its attributes, presentation and setting. ■ Inspire and engage people with the Site and deepen their understanding of its values. ■ Maintain and improve access to and experience of the Site. <p>Enable the Site's World Heritage Status to be of benefit to people and communities.</p>
Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019	<p>The Bournemouth, Christchurch, Poole and Dorset Waste Plan (2019) identifies sites for new waste management facilities to meet the county's needs. It provides the policy framework for determining planning applications for waste management facilities up to 2033.</p>

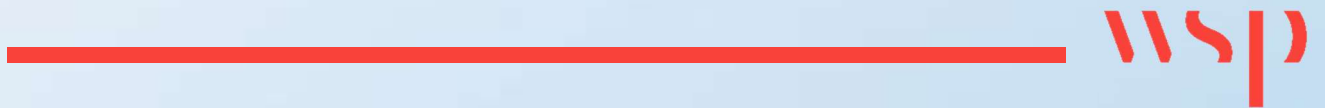
Plan, Policy, Programme Name	Key Messages
South Gloucestershire, Development Plan	South Gloucestershire's Development Plan consists of the Core Strategy, Policies Sites and Places Plan and the Joint Waste Core Strategy. In 2013, South Gloucestershire adopted the Core Strategy. The document details the policies in place to develop and optimise land up to 2027 to help secure a sustainable future.
West of England Energy Strategy	<p>This sets the direction towards a diverse, resilient and affordable energy system that enables economic growth and reduces greenhouse gas emissions. It outlines five areas of activity:</p> <ul style="list-style-type: none"> ■ Improving business and industry energy efficiency ■ Improving our homes ■ Accelerating the shift to low carbon transport ■ Delivering clean, smart, flexible power ■ Leading in the public sector.
Renewable Energy Resource Assessment Studies – Bristol (2009), South Gloucestershire (2021), Bath and North East Somerset (2021) and North Somerset (2021)	A Renewable Energy Resource Assessment Study (RERAS) has been undertaken most recently in 3 of the Local Authorities in the region. The RERAS aims to help inform policies that support and facilitate the potential deployment of renewable, low and low and zero-carbon energy systems.
West of England Joint Waste Core Strategy (2011)	<p>The Joint Waste Core Strategy sets out the four authorities in the region's aspirations for all levels of waste management until 2026: prevention; reuse; recycling; recovery; and disposal. Its vision is:</p> <p>'By 2026 the West of England will be resource efficient with waste generation minimised, in line with the waste hierarchy, and operating a waste management infrastructure, with sufficient capacity to deal with the amount of waste generated in the West of England. The needs of the West of England to enable sustainable economic growth will be met, whilst ensuring the protection of the natural, and historic environment which are its most distinctive and unique assets.'</p>
Bristol City Council Waste and Resource Management Strategy	<p>The vision in the Strategy is:</p> <p>'Bristol City Council want Bristol to be a city where resource use is minimised, waste production is minimal, and that repair and re-use is maximised. We want a city where there is a clean, green, safe and sustainable street scene for residents and for visitors to Bristol.'</p>

Plan, Policy, Programme Name	Key Messages
North Somerset Recycling and Waste Strategy and Action Plan 2021-2030	<p>The Strategy's vision is that North Somerset: 'Will be a leading authority in minimising waste and tackling the climate emergency. We want to change the way we all think about waste. It is a resource to be utilised and value recovered. We will lead our communities to inspire sustainable actions and provide an open, fair and green service.' There includes a set of eight targets in order to contribute towards the carbon neutral by 2030 target, some of which are particularly relevant to the Transport Plan:</p> <ul style="list-style-type: none"> ■ Target 1: A reduction in residual waste (waste that is not recycled or reused) of 15% below the level of 2019/20 by 2030 ■ Target 2: A recycling rate of 70% by 2030 ■ Target 7: Improved appearance of our streets and open spaces ■ Target 8: Progress towards a circular economy
South Gloucestershire Resource and Waste Strategy: 2020 and Beyond	<p>A strategy focusing on reducing the production of waste, with a focus on reducing the use of single-use items and encouraging reuse and repair. The strategy aims to increase awareness of and improve on; the value of the resource, addressing plastics, reducing waste, re-use, recycling and the role of recovery.</p>
Bath and North East Somerset Resources, Waste and Litter Strategy 2020 to 2030	<p>The focus of the Council's updated Resources Waste and Litter Strategy is working with residents to achieve the national 65% recycling target, making neighbourhoods cleaner and greener, and delivering objectives of the climate and nature emergency in order to improve people's lives.</p>
Wiltshire's Wayfinding Strategy 2014	<p>The aim of this project is to develop a wayfinding strategy to support and improve the legibility of walking and cycling in several towns and villages in Wiltshire.</p>
Wiltshire Household Waste Management Strategy 2017-2027	<p>Wiltshire Council's vision for its Household Waste Management Strategy 2017-2027 is working towards zero avoidable household waste in Wiltshire.</p> <p>The focus of the plan is to achieve high recycling rates and avoid litter.</p> <p>The priorities of the plan are:</p> <ul style="list-style-type: none"> ■ To prevent waste from being generated. Where we cannot prevent, we should repair and reuse, where reuse is not possible we should recycle and compost more. Any waste that cannot be reused, recycled or composted should be treated to recover any potential value, such as energy. ■ To reduce litter and fly tipping which are two of the most visible forms of avoidable waste. In its Business Plan the council recognises that to continue sustainable growth in our communities we need clean, safe and attractive environments and this strategy will contribute to maintaining these.

Plan, Policy, Programme Name	Key Messages
	<p>An annual action plan will sets out goals and outcomes for the council to work towards in order to deliver the priorities within the overarching strategy. There is also an annual performance report which will enable the council to review what has been achieved against the priorities based on completion of the targets set out in the action plan for the previous year.</p>
Wiltshire Core Strategy, 2015	<p>The Wiltshire Core Strategy includes the following objective: working towards lowering Wiltshire's carbon footprint through the appropriate location of development, and through renewable energy and sustainable construction.</p> <p>The strategy also includes a number of strategies for different areas within Wiltshire to improve the renewable energy contribution of the county.</p>
Gloucestershire Sustainable Energy Strategy 2019	<p>The County's sustainable energy strategy sets out how Gloucestershire can play its part in achieving improvements to energy efficiency and renewable energy, enabling its businesses and citizens to capture the economic and social benefits of doing so.</p> <p>The strategy is designed to make the most of Gloucestershire's strengths, creating opportunities to secure business advantages in relevant local, national and international markets. It also identifies a number of weaknesses which could see the county lose out and fail to deliver if they were to remain unaddressed.</p> <p>The ambitions of the Strategy are:</p> <ul style="list-style-type: none"> ■ Committing to reducing carbon emissions: Gloucestershire to become carbon neutral by 2050, reducing carbon emissions by 60% by 2030 (on 2005 levels) and to virtually zero by 2050 with any residual emissions offset by additional tree planting or other carbon absorbing measures (in line with the anticipated new national target). ■ Increasing renewable electricity generation: Carbon emissions per unit of electricity below 100g by 2030 with at least 30% of electricity consumed in the county generated from renewable energy sited within the county. 1 TWh a year of renewable electricity sourced from projects sited within the county by 2030 (requiring an extra 0.75 TWh from 2017 levels). ■ Improving building energy performance (and tackling fuel poverty in the process): Every existing building (domestic and non-domestic) upgraded to at least an EPC rating of C by 2035 – and upgrading fuel poor homes to at least a C by 2030.
Gloucester Waste Core Strategy, 2012	<p>The Waste Core Strategy explains how the County Council and its partners will address the issue of planning for waste management in Gloucestershire in the period 2012 to 2027. It provides a policy framework to guide decisions on planning applications for waste management developments, which include facilities to deal with key waste 'streams' such as municipal, commercial & industrial, construction & demolition and hazardous wastes. It also considers how radioactive, clinical, and agricultural wastes and waste water should be dealt with locally.</p>

Appendix B

ADDITIONAL BASELINE INFORMATION



This appendix sets out the key current baseline information for each of the SEA topics, for each of the local authorities comprising the Western Gateway Sub-National Transport Body. This has been summarised in Section 5 of the main Scoping Report.

Table B-1 – Population and Human Health

Local Authority	Current Baseline
Bournemouth, Christchurch & Poole (BCP) and Dorset	<ul style="list-style-type: none"> BCP and Dorset have a total population of approximately 400,300 people and 379,600 people respectively [1]. The population of BCP has increased by 5.7% between 2011 and 2021[2], compared to a 4.0% increase in Dorset over the same period [3]. Both areas witnessed a smaller increase to their population compared to the South West region, 7.8%, and the overall population of England, 6.6%. The highest proportion of people in BCP are aged between 20-24 years, making up 6.7% of the total population [3]. Conversely, the 70-74 years age group has the highest proportion of people in Dorset, comprising 8.0% of the total population. The percentage of those in BCP and Dorset aged 65 and over exceed 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. BCP has a high population density of 2,470 people per square kilometre (km2). Dorset has a much lower density with 152 people per km2 [3]. The population density in BCP is significantly higher than the regional and national population density averages of 239 people per km2, and 434 people per km2 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. According to 2021 Census data [4], 91.4% of the population of BCP are White, 3.3% identified themselves as Asian, 2.8% as Mixed or Multiple ethnic groups, 1.4% as ‘Other’, and 1.0% as Black. The diversity in BCP may owe to 15% of the population being comprised of non-UK born residents [5]. The ethnic make-up of Dorset is much less diverse, with 97.1% identified as White, 1.2% as Mixed or Multiple ethnic groups, 1.1% as Asian, 0.4% as ‘Other’, and 0.3% as Black. The majority of residents in BCP are Christian (46.8%), followed by no religion (42.2%), Muslim (1.7%), Other (0.7%), Hindu (0.7%), Buddhist (0.5%), Jewish (0.4%), and Sikh (0.1%) [6]. However, 6.9% of people did not answer the Census question about religious belief. Identifying as Christian is also the most common religion in Dorset, at a higher rate of 51.6%. This is followed by no religion (40.1%), Other (0.6%), Muslim (0.4%), Buddhist (0.4%) and Jewish (0.1%). In terms of deprivation, BCP was ranked 166th out of 326 Local Authority Districts (LADs) in 2019 (1 being the most deprived and 326 the least deprived), with 137 Lower Super Output Areas (LSOAs) in the most 10% deprived nationally. These most deprived areas are particularly concentrated in Turlin Moor, Alderney, Turbary Common and West Howe, Boscombe and Somerford [7]. Dorset was ranked 197th out of 326 LADs in 2019 (1 being the most deprived and 326 the least deprived), with 150 LSOAs in the most 10% deprived nationally. The most deprived areas in Dorset are largely located in the urban areas, in particular Weymouth and Portland, but 66 of Dorset neighbourhoods could also be considered deprived in terms of barriers to housing and essential services [8], reflecting rurality and distance from services. The average life expectancy (at birth) across both BCP [9] and Dorset [10] is higher than the national average (79.6 years for males and 83.2 for females) for both males and females at 80.2 years and 83.8 years respectively. 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%. 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 2022, 18.1% of 4–5-year-olds in were reported to be overweight (including obesity). This proportion increases to 32.3% for 10–11-year-olds for the same year11. In Dorset, 20.3% of 4-5 year olds were reported to be overweight (including obesity), 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 (including obesity) in both BCP and Dorset is lower than the national averages of 21.3% and 36.6% respectively. Public Health England describe the health of people across BCP and Dorset as varied compared with the England average. This is reflected in the IMD 2019 [10], where BCP is ranked 140th out of 317 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. BCP has a higher mortality rate from Chronic obstructive pulmonary disease (COPD) at 35.1 people per 100,000 when compared to the regional average of 32.2 people per 100,000, but lower than the national average of 39.8 people per 100,000[12]. Conversely, Dorset has a lower mortality rate from COPD at 24.7 people per 100,000. According to Age UK, the majority of the people aged 65 and over in BCP are within very low and low risk areas for loneliness [13]. 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 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 populated neighbourhoods of BCP and the large towns of Dorset, have higher levels of loneliness. The proportion of people within BCP and Dorset who are disabled under the Equality Act (day-to-day activities limited a lot) is significantly lower than the national average (17.7%) [14]. In BCP, 7.3% of the population are disabled under the equality act, with 6.5% considered disabled in Dorset.

1 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)

2 Bournemouth, Christchurch and Poole population change, Census 2021 – ONS

3 Dorset population change, Census 2021 – ONS

4 Office for National Statistics. Ethnic group, England and Wales: Census 2021. Available online at: [Ethnic group, England and Wales - Office for National Statistics \(ons.gov.uk\)](#)

5 BCP Council, Statistics, data and census. International migration. Available online at: [Demography and migration | BCP \(bcpcouncil.gov.uk\)](#)

6 Office for National Statistics, Religion, England and Wales: Census 2021. Available online at: [Religion, England and Wales - Office for National Statistics \(ons.gov.uk\)](#)

7 Public Health Dorset (2022) Bournemouth, Christchurch and Poole Council (BCP) JSNA Summary. Available online at: JSNA Narrative Template (publichealthdorset.org.uk)

8 Dorset Council (2022) State of Dorset 2021 – Deprivation. Available online at: [Deprivation Reports - Dorset Council](#)

9 Bournemouth, Christchurch and Poole Local Authority Health Profile 2019. Available online at: E06000058 (phe.org.uk)

10 Dorset Local Authority Health Profile 2019. Available online at: E06000059 (phe.org.uk)

11 Office for Health Improvement and Disparities, 2024, Obesity Profile, Available at: <https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/1/gid/8000011/ati/502/iid/90316/age/200/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1>

12 Public Health England, Inhale - Interactive Health Atlas of Lung conditions in England 2019. Available online at: [Respiratory disease - OHID \(phe.org.uk\)](#)

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

14 ^[1] Office for National Statistics, Disability England and Wales: Census 2021. Available online at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/disabilityenglandandwales/census2021>

Local Authority	Current Baseline
	<ul style="list-style-type: none">On average across BCP, 36.4 people (per 100,000 resident population) are killed or seriously injured (KSI) on the region’s roads each year, lower than the regional average (39.8 people per 100,000 resident population) and the national average (42.6 people per 100,000 resident population) [13]. This rate is higher in Dorset, at 53.4 people (per 100,000 resident population) [14].In 2022, serious accidents occurred in more densely populated in Bournemouth, Christchurch, Ferndown, Dorchester and Weymouth. Accidents are most commonly associated with the A354, A31, A35 and A338[15].Bournemouth’s average crime rate is higher than the regional average, at approximately 91 crimes per 1,000 people, 51% higher than the Dorset rate of 60 crimes per 1,000 people[16]. The crime rate in Poole is similar to Dorset, at 62 crimes per 1,000 people [17]. Christchurch has the lowest crime rate in the region, at 44 crimes per 1,000 people [18].With regards to crime deprivation, levels of deprivation are varied across BCP and Dorset. BCP has the highest crime deprivation levels, ranking 153rd out of 317 local authorities within the UK (an indicator of 1st being the most deprived neighbourhood, and 317 being the least deprived neighbourhood) [10]. Dorset ranks 272nd out of 317 local authorities within the UK.
Gloucestershire	<ul style="list-style-type: none">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) [19,20].In mid-2023, Gloucestershire had a reported population of 659,276, an 1.01% increase from mid-2022[21]. 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 districts from mid-2022 to mid-2023.Gloucestershire has a relatively low population density of 243 people per square kilometre (km²) [29], compared to the national average of 434 people per km².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 lower gender distribution of males (48.90%) compared to the national and regional averages, 49.03% and 48.96%, respectively [20].The urban districts of Cheltenham and Gloucester, have a younger population as the proportion of the population in the 65+ age groups is lower, whilst the proportion of the population in the 20-24 to 35-39 age groups is noticeably higher [20]. This is the opposite for more rural districts such as the Forest of Dean and Stroud.The age group that saw largest increase in all of Gloucestershire was in the 65+ age group, which increased by 1.70% from mid-2022 to mid 2023, followed by the 0-15 year olds, which increased by 0.97%, greater than the national increase by 0.72%.dependency ratios measure the level of support provided by a working age population (16-64) 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[20].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 [20].According to 2021 Census data, 93.1% of Gloucestershire’s population identified as ‘White’. This is less diverse than the national average, with 81.7% of residents across England and Wales identifying as ‘White’. The second largest ethnicity reported in Gloucestershire, accounting for 2.9% of the population, is the ‘Asian, Asian British or Asian Welsh’ group, followed by ‘Mixed or Multiple ethnic groups’[22].In 2021, 95.7% of Gloucestershire’s population chose English as their preferred language, a 1% decrease from 2011 census data. However, the number of people speaking English as a main language increased by 7.4% in 2021, compared to 2011[21].The proportion of people with ‘very good health’ to ‘good health’ in Gloucestershire (83.1%) is greater than the national average (82.2%) [23]. This is reflected in the mortality rate from respiratory diseases, with rates being consistently lower than the national rate for people in Gloucestershire. Nevertheless, this rate has increased from 79.8 people per 100,000 in 2021, to 88.5 people per 100,000 in 2022[24].The Gloucestershire Community Wellbeing Survey in 2017 identified that 38% of respondents felt lonely at times, and that it was highest in those with a mental health issue, long term illness and/or learning disability [25].The proportion of people within Gloucestershire who are disabled under the Equality Act is 16.8%, lower than the national average of 17.7% [26]. In 2022, 21.1% of 4–5-year-olds in Gloucestershire were reported to be overweight. This proportion increases to 33.9% for 10–11-year-olds for the same year. The proportion of adults who are classified as obese in Gloucestershire in 2022/23 is nearly on par with the national prevalence, at 25.9% and 26.2%, respectively [27].The percentage of physically active adults in Gloucestershire is has consistently been greater than the national percentage [25], however still 30% of residents aged over 55 years old are inactive [28].The number of KSI casualties in Gloucestershire for 2022 was greater than the estimate for England, at 94.8 and 94.5 per billion miles, respectively [42]. The casualties mainly involved vehicle occupants, followed by motorcycles, then cyclists. These were focused predominantly in the urban areas, such as Gloucester and Cheltenham [29].In 2015 there were 13 areas in Gloucestershire in the most deprived 10% nationally for the overall Index of Multiple Deprivation (IMD). This has since decreased to 12 areas in 2019[30].As of June 2024, the crime rate in Gloucestershire is 72 crimes per 1,000 people. The most common crimes recorded n Gloucestershire are violence and sexual offences [31].

15 Dorset Traffic Collision Map, 2022 [online] available at: https://www.google.com/maps/d/viewer?mid=1D3myfT_NvOq6_EvkOZ-cAxGpAPeqAcw&femb=1&ll=50.726193047375006%2C-1.8592537344614901&z=13

16 CrimeRate. Bournemouth Crime Statistics. Available online at: [Bournemouth Crime and Safety Statistics | CrimeRate](#)

17 CrimeRate. Poole Crime Statistics. Available online at: [Poole, Dorset Crime and Safety Statistics | CrimeRate](#)

18 CrimeRate. Christchurch Crime Statistics. Available online at: [Christchurch, Dorset Crime and Safety Statistics | CrimeRate](#)

19 Gloucestershire County Council, 2013, Census Briefing for Commissioners, Available at: [census_briefing_for_commissioners_-_full_report.pdf](#) (gloucestershire.gov.uk)

20 InformGloucestershire, 2021, First Release Initial Briefing, Available at: [first-release-initlal-briefing.pdf](#) (gloucestershire.gov.uk)

21 Gloucestershire County Council, 2023, Current population of Gloucestershire (Mid-2023 population estimates) An overview, Available at: [mid-2023-report.pdf](#) (gloucestershire.gov.uk)

22 InformGloucestershire, 2021, 'Ethnicity, Identity, Language and Religion – a briefing', Available at: [ethnicity-identity-language-and-religion-briefing-v2.docx](#) (live.com)

23 Office for National Statistics, 2021, Census 2021 Gloucestershire, Available at: [Build a custom area profile - Census 2021](#), ONS

24 Department of Health & Social Care, 2022, Public Health Profiles, Available at: [Fingertips | Department of Health and Social Care \(phe.org.uk\)](#)

25 One Gloucestershire & Safer Gloucestershire, 2019, Deep Dive- Social Isolation & Loneliness, Available at: <https://glostext.gloucestershire.gov.uk/documents/s58701/20190820%20Deep%20Dive%20Social%20Isolation%20FINAL%20DRAFT.pdf>

26 Office for National Statistics, Disability England and Wales: Census 2021. Available online at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/disabilityenglandandwales/census2021>

27 Office for Health Improvement and Dispart, 2024, Public Health Profiles, Available at: <https://fingertips.phe.org.uk/>

28 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>

29 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>

30 Gloucestershire County Council, 2019, Indices of Deprivation- Gloucestershire, Available at: [gloucestershire_deprivation_2019_v13.pdf](#)

31 CrimeRate. Gloucestershire Crime Statistics. Available at: <https://crimerate.co.uk/gloucestershire>

43 Statista, Crime Rate by Area – England and Wales 22/23. Available online at: <https://www.statista.com/statistics/666766/crime-rate-england-and-wales-by-region/>

Local Authority	Current Baseline
	<ul style="list-style-type: none">With regards to crime deprivation, levels of deprivation are varied across the region. Of the LAs within the region, Bristol has the highest crime deprivation levels, ranking 8th out of 317 local authorities within the UK (an indicator of 1 being the most deprived neighbourhood, and 317 being the least deprived neighbourhood) [52]. The least deprived LA within the region is B&NES, ranking 196th out of 317 local authorities within the UK [46].
Wiltshire	<ul style="list-style-type: none">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) [47].Wiltshire has a low population density of 157 people per square kilometre (km²) [29], compared to the national average of 434 people per km². This area was among the lowest 15% for population density across English local authority areas at the last census [29].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) [29].In 2021, 41.3% of Wiltshire residents reported having "No religion", up from 26.5% in 2011. The rise of 14.7% was the largest increase of all broad religious groups in Wiltshire [29].Across the South West, the percentage of residents who described themselves as having "No religion" increased from 29.3% to 44.1%, while across England the percentage increased from 24.8% to 36.7% [29].In 2021, 50.2% of people in Wiltshire described themselves as Christian (down from 64.0%), while 6.0% did not state their religion (down from 7.7% the decade before) [29].In 2021, 94.3% of people in Wiltshire identified their ethnic group as "White" (compared with 96.6% in 2011), while 1.7% identified their ethnic group within the "Mixed or Multiple" category (compared with 1.2% the previous decade) [29].The percentage of people who identified their ethnic group within the "Black, Black British, Black Welsh, Caribbean or African" category increased from 0.7% in 2011 to 1.1% in 2021[29]. In 2021, 2.1% of Wiltshire residents identified their ethnic group within the "Asian, Asian British or Asian Welsh" category, up from 1.3% in 2011. The 0.8% increase was the largest increase among high-level ethnic groups in this area [29].Wiltshire is less deprived than many other local authority areas in England. Over 70% of local authority districts in England are more deprived than Wiltshire [48].One area (Trowbridge John of Gaunt - Studley Green) is in the most deprived 10% of LSOAs in England [30].When looking at the specific domains of deprivation, less than 20% of Wiltshire's LSOAs are in the most deprived national 40% of LSOAs in the Income, Employment, Health and Crime domains. Around 30% of Wiltshire's LSOAs are in the most deprived national 40% in the Education (29%) and the Living Environment (31%) domains, while 47% of Wiltshire's LSOAs are in the most deprived national 40% in the Barriers to Housing and Services domain [30].In 2021, 50.5% of Wiltshire residents described their health as "very good", increasing from 48.9% in 2011. Those describing their health as "good" fell from 34.5% to 34.0%. These are age-standardised proportions [30]. The proportion of Wiltshire residents describing their health as "very bad" was 0.8% (similar to 2011), while those describing their health as "bad" remained 3.2%.The proportion of adults in Wiltshire who are physically active has fallen from 2021/22-2022/23, from 71.9% to 70.6%, now nearing levels of national averages.The life expectancy in Wiltshire for males is 81 years, whilst for females it is greater at 84.8 years. Comparatively, the healthy life expectancy in Wiltshire for males is 66.2 years and 68 years for females [49].The mortality rate from respiratory diseases in Wiltshire is significantly better than the national average; for 2022, the mortality rate for Wiltshire was 81.4 per 100,000 deaths, whilst the rate for England was 102.8 per 100,000[31].In 2022, 19.9% of 4–5-year-olds in were reported to be overweight (including obesity) in Wiltshire. This proportion increases to 32.6% for 10–11-year-olds for the same year⁵⁰, this is lower than the national averages for both age groups.In 2021, 6.0% of Wiltshire residents were identified as being disabled and limited a lot. This figure decreased from 6.8% in 2011. Just over 1 in 10 people (10.4%) were identified as being disabled and limited a little, compared with 9.6% in 2011. The proportion of Wiltshire residents who were not disabled remained at 83.6% [50].According to an Opinions and Lifestyle Survey run by the Office for National Statistics, 7.3% of people answered that they often or always felt lonely [51].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 approximately 900 offences of this type per year. These offences were particularly high in Salisbury and Devizes community areas [52].

46 UK Government, English Indices of Deprivation (2019). Available online at: [English indices of deprivation 2019 - GOV.UK \(www.gov.uk\)](#)

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

48 Wiltshire Council, 2019, English Indices of Deprivation 2019: Wiltshire Report, Available at: [IoD-2019-Wiltshire \(wiltshireintelligence.org.uk\)](#)

49 Office for Health and Improvement Disparities, 2024, Public health profiles, Available at: [https://fingertips.phe.org.uk/](#)

⁵⁰ Office for Health Improvement and Disparities, 2024, Obesity Profile, Available at: [https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/1/qid/8000011/ati/502/iid/90316/age/200/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1](#)

51 Office for National Statistics, 2024, Opinions and Lifestyle Survey QMI, Available at: [Opinions and Lifestyle Survey QMI - Office for National Statistics](#)

52 Wiltshire Intelligence, 2018-2022 , Community Area Joint Strategic Needs Assessment (CASJANA), Available at: [CAJSNA Wiltshire Intelligence](#)

53 The ratio of total jobs to population aged 16-64.

54 Nomis Local Labour Statistics. Available online at: [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://nomisweb.co.uk/LabourMarketProfile)

55 Nomis Local Labour Statistics. Available online at: [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://nomisweb.co.uk/LabourMarketProfile)

56 BCP Council, BCP Futures – Economic Development Strategy (EDS) for Bournemouth, Christchurch and Poole. 2021-2026. Available online at: [Appendix 1 24112021 Cabinet.pdf \(bcpcouncil.gov.uk\)](https://bcpcouncil.gov.uk/Appendix%201%202021%20Cabinet.pdf)

57 Dorset Council, Driving economic prosperity delivery plan. Available online at: [Driving economic prosperity delivery plan - Dorset Council](https://dorsetcouncil.gov.uk/Driving%20economic%20prosperity%20delivery%20plan)

58 Office for National Statistics, 2021, Labour Market Profile – Bournemouth, Christchurch and Poole, Available at: https://wsonlineqbr.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

59 Office for National Statistics, 2021, Labour Market Profile- Dorset, Available at: [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://nomisweb.co.uk/LabourMarketProfile)

60 Bournemouth, Christchurch and Poole: Working together to deliver a great destination, Tourism Strategy: 2023 – 2027. Available online at: [FINAL BCP Report \(bcpcouncil.gov.uk\)](https://bcpcouncil.gov.uk/FINAL%20BCP%20Report)

61 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 \(simpleviewinc.com\)](https://simpleviewinc.com/2019%20Infographic-The%20Economic%20Impact%20of%20Rural%20Dorset's%20Visitor%20Economy)



Local Authority	Current Baseline
Gloucestershire	<ul style="list-style-type: none">As of December 2023, the employment rate in Gloucestershire was 82.3% for individuals aged 16 to 64, reflecting a robust job market and a strong local economy [62].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 [58].Approximately 14.9% of Gloucestershire’s population aged 16 to 64 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 those in the South West and England and Wales. Fewer people in Gloucestershire travel by train (0.3% vs. 1.9% nationally) or by bus, mini coach, or coach (2.2% vs. 4.2% nationally) [63].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.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 [64]. <p>Key attractions contributing to this include:</p> <ul style="list-style-type: none">- 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- Broadway Tower
West of England Combined Authority and North Somerset	<ul style="list-style-type: none">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, Wales and Birmingham as well as internationally through its port and airport, the West of England economy competes strongly on a global scale [65].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 [66].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.The working age population in the West of England is well qualified overall, with 46% possessing an NVQ level or above qualification [67]. 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

62 Office for National Statistics, 2021., Labour Market Profile, Available at: [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](#)

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

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

65 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](#)

66 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](#)

67 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](#)

Local Authority	Current Baseline
	<p>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 [68].</p> <ul style="list-style-type: none">■ B&NES has the highest gross mean salary at £38,512 per annum, whilst the City of Bristol has the lowest at £34,598 per annum [69]. 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, there were an estimated 102,600 and 153,900 jobs paying less than the living wage across the region, with many of these jobs being part-time and a high proportion focused in the City of Bristol [70]. 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 North Somerset have the highest 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% [71].■ 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. The region saw a lower unemployment rate than England as a whole, at 4.2% regionally compared to 5.3% nationally.■ The number of people in zero hours contracts 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 [72].■ 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 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 [73].■ 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 [74]. It is estimated that the visitor economy of the West of England generated £1.8 billion in 2022 [75].
Wiltshire	<ul style="list-style-type: none">■ 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 [76].■ 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 [77].■ 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 [62].■ 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 [62]. 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 [62].■ 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 [62].■ 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 [62].■ 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 [78].■ 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 [63].■ 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.

68 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

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 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>

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

72 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>

73 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>

74 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>

75 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>

76 Office for National Statistics, 2023-24, Labour Market Profile- Wiltshire, Available at: [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/)

77 Beauhurst, 2022, Analysis Report: Economic and Business Activity in Wiltshire, Available at: [Analysis Report: Economic and Business Activity in Wiltshire - UK Data](https://www.beauhurst.com/analysis-report-economic-and-business-activity-in-wiltshire-uk-data)

78 Wiltshire Intelligence, 2024, Community Area Joint Strategic Needs Assessment (CASJANA), Available at: [CAJSNA 2024 - Economy Wiltshire Intelligence](https://www.wiltshireintelligence.co.uk/)



Local Authority	Current Baseline
	<ul style="list-style-type: none">Tourism plays a significant role in Wiltshire’s economy. In 2019, the tourism sector contributed approximately £1.5 billion to the local economy [79]. 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 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 [80].Popular Attractions in Wiltshire include:<ul style="list-style-type: none">StonehengeSalisbury CathedralLongleatAveburyStourhead

Table B-3 Biodiversity

Local Authority	Current Baseline
BCP & Dorset	<ul style="list-style-type: none">In BCP and Dorset combined there are a number of nationally and locally designated sites; 141 Sites of Special Scientific Interest (SSSI), 9 Marine Conservation Zones, 365 Sites of Nature Conservation Interest (SNCI), 11 National Nature Reserves (NNR), and 51 Local Nature Reserves (LNR). Additionally, there are a number of internationally designated sites; there are 1874 Ramsar sites, 27617 Special Area of Conservation (SAC), and 1835 Special Protection Areas (SPA).Chesil Beach and the Fleet Lagoon Marine Protected Area is of international geomorphologic and biodiversity importance. It is the largest example of a lagoonal habitat in England [81] home to a large number of resident and over-wintering birds, numerous plants and animals. Poole Harbour SPA and Ramsar site is the best and largest example in the UK of a bar-built estuary with lagoon characteristics [82].The Dorset National Landscape boasts a rich range of habitats and species including 83% of all British mammal species, 48% of bird species and 70% of butterfly species. The UK’s richest grid squares for vascular plants and mammals are both found in the Dorset National Landscape [83].Forests and woodlands are quintessential features of the Dorset landscape supporting a wealth of biodiversity [84], including a high proportion of the Council’s protected species.BCP declared a declared a climate and ecological emergency on the 16th July 2019. In response to the Nature Recover Project with the Parks Foundation, planted 120 trees, 1,400m2 of thicket, 2,800 bulbs, and 600m² of wildflower plugs and seeds were planted across 11 urban parks. Building on this work, the collaborative two-year Green Heart Parks project is delivering enhancements for nature in 14 local community parks [85].Dorset Council declared a nature emergency on the 19th July 2024. This follows on from its climate and ecological emergency declaration in 2019, this new declaration will help strengthen the council’s ambitions to create a carbon neutral, nature positive and resilient Dorset.Dorset Council have developed a Biodiversity Appraisal Protocol (DBAP) which is Council's preferred mechanism to address impacts on biodiversity from planning applications and Listed Building Consents (LBCs).The government has asked each county in England to produce local nature recovery strategies. Dorset Council are currently working closely with BCP Council, Natural England and a wide range of local people and organisations to produce their first strategy.
Gloucestershire	<ul style="list-style-type: none">In Gloucestershire, there are a number of nationally and locally designated sites; 268 Sites of Special Scientific Interest (SSSI), 4 National Nature Reserves (NNR), and 12 Local Nature Reserves (LNR). Additionally, there are a number of internationally designated sites; 2 Ramsar sites, 55 Special Area of Conservation (SAC), and 2 Special Protection Areas (SPA).Gloucestershire boasts numerous Sites of Special Scientific Interest (SSSIs) recognized for their exceptional wildlife and geological features, alongside approximately 850 Local Wildlife Sites (LWS) that include ancient woodlands, species-rich grasslands, river valleys, heathlands, and hedgerows. Additionally, nature reserves managed by organizations like the Gloucestershire Wildlife Trust play a crucial role in protecting various habitats and species [86].The county’s diverse habitats include ancient and semi-natural woodlands that provide essential environments for a variety of species, species-rich grasslands that support diverse flora and fauna, and wetlands and rivers that are vital for aquatic species and ecosystem services. Heathlands and hedgerows also offer unique habitats and act as important wildlife corridors, enhancing connectivity across the landscape [87].Gloucestershire is home to a variety of mammals, including badgers, otters, and various bat species such as the common pipistrelle and noctule. Other notable mammals include the European hedgehog, roe deer, and the rare hazel dormouse [88].The Gloucestershire Wildlife Sites Partnership, which includes various local and national organizations, plays a key role in the conservation of these sites. The partnership works to survey, monitor, and manage Key Wildlife Sites to ensure their protection and enhancement [89].

79 Visit Wiltshire, 2021, Recovery and Realignment Wiltshire Tourism Recovery Plan, Available at: [Wiltshire Tourism Recovery Plan 2021.pdf \(visitwiltshire.co.uk\)](#)

80 David Andrews, 2018, Economic Impact of Wiltshire’s Visitor Economy 2017, Available at: [Economic Impact of Wiltshire Tourism 2016.pdf \(visitwiltshire.co.uk\)](#)

81 Natural England, Chesil Beach and The Fleet SPA. Available online at: [Designated Sites View \(naturalengland.org.uk\)](#)

82 Ramsar Sites Information Service, Poole Harbour. Available online at: [Poole Harbour | Ramsar Sites Information Service](#)

83 Dorset National Landscape, Wildlife, [online] available at: [https://dorset-nl.org.uk/wildlife/](#)

84 Dorset Biodiversity Action Plan, 2003 [online] available at: [https://dorsetlnp.org.uk/wp-content/uploads/2019/01/Dorset-Biodiversity-Strategy-2003.pdf](#)

85 BCP Council, Climate Action Progress Report 2022-2023, [online] available at: [https://www.bpcouncil.gov.uk/Assets/Environment/Climate-Progress-Report-2022-23-Appendix-1.pdf](#)

86 Gloucestershire County Council, 2024, Biodiversity in Gloucestershire, Available at: [Biodiversity in Gloucestershire | Gloucestershire County Council](#)

87 Gloucestershire County Council, 2015, Highways & Biodiversity Guidance for Gloucestershire, Available at: [Gloucestershire County Council](#)

88 Gloucestershire Wildlife Trust, 2024, Species, Available at: [Mammals | Gloucestershire Wildlife Trust](#)

89 Gloucestershire Wildlife Trust, 2018, Gloucestershire Key Wildlife Sites Handbook, Available at: [Microsoft Word - Gloucestershire Key Wildlife Sites Handbook Part 1 v4.5 final.doc \(gloucestershirewildlifetrust.co.uk\)](#)

Local Authority	Current Baseline
	<ul style="list-style-type: none">■ The species richness in Gloucestershire is notable, with many habitats supporting a high diversity of species. For example, limestone grasslands are home to rare plants like the bee orchid (<i>Ophrys apifera</i>) and various butterfly species.■ Gloucestershire's habitats are diverse, ranging from the ancient ravine woodlands of the Wye Valley to the streams of the Cotswold plateau. The county fits into three key Natural Areas: the Forest of Dean with its acid grassland, bogs, heathland, and oak woodland; the Severn Vale and its floodplain; and the Cotswold escarpment with unspoilt limestone grassland and beech woodland.■ Conservation efforts in Gloucestershire are robust, with initiatives like Biodiversity Net Gain (BNG) becoming a statutory requirement for all planning applications as of January 2024, ensuring that development projects enhance natural habitats.■ Habitat mapping projects, such as HabiMap, aim to improve habitat data quality and identify opportunities for enhancing and connecting wildlife-rich areas. Local organizations also engage with landowners and communities to promote wildlife-friendly land management practices, fostering a collaborative approach to conservation.■ Gloucestershire County Council are currently developing their Local Nature Recovery Strategy (LNRS) for the county, with a draft LNRS due for public consultation in late 2024.
West of England Combined Authority and North Somerset	<ul style="list-style-type: none">■ The West of England is an important region for biodiversity and wildlife habitats with areas such as the Severn Estuary, afforded the highest level of protection and with the second highest tidal range in the world, supports an average of 74,000 wintering, wildfowl and wading birds each year with its marsh and mudflat habitats. The Severn's mudflats and saltmarshes provide both an overwintering ground and an essential stop-over for passing migratory species [90].■ In WECA and North Somerset combined, there are a number of nationally and locally designated sites; 141 Sites of Special Scientific Interest (SSSI), 2 National Nature Reserves (NNR), and 67 Local Nature Reserves (LNR). Additionally, there are a number of internationally designated sites; 15 Ramsar sites, 23 Special Area of Conservation (SAC), and 16 Special Protection Areas (SPA).■ In addition, there are 11 SACs and SPAs adjacent to the regional boundary.■ There are numerous areas of Ancient Woodland and priority habitats within the region, together with Sites of Nature Conservation Interest (SNCIs) and, within Bristol, locally designated wildlife corridor sites.■ The West of England is home to a number of nationally and internationally rare plants. As well as their cultural value, a rich and diverse flora forms part of a resilient and dynamic ecosystem and supports a variety of wildlife. The Avon Gorge, one of the top three sites for rare plants in England, has more than 30 nationally rare and scarce plants. Other significant landscapes for flora include the Cotswolds and Mendip Hills National Landscapes, which include plant species colonising relic lead mined areas.■ The West of England Mayoral Combined Authority has produced a Strategy for Nature Recovery which supports the wider Climate and Ecological Action Plan [91]. The longer-term actions for this include:<ul style="list-style-type: none">- Increase the abundance of wildlife from 2020 levels by 30% by 2030.- Increase our semi-natural broadleaved woodland cover by 2500ha (from 8,000 to 10,500 ha, or by 31%).- In addition to woodland, create 2000 hectares of wildlife-rich habitat outside the protected site network.- Close at least 40% of the Nature Recovery Network connectivity gaps through the creation of new habitat.- Ensure all water catchments are in at least moderate ecological status, with half in good ecological status by 2030.- Ensure 70% of designated sites are in favourable condition by 2030.■ The West of England Nature Partnership, established in 2012, aims to develop a thriving and well-connected natural environment in the West of England, underpinning a healthy and resilient society and economy. The partnership aims to invest in the delivery of nature recovery projects across the West of England.
Wiltshire	<ul style="list-style-type: none">■ In Wiltshire, there are a number of nationally and locally designated sites; 277 Sites of Special Scientific Interest (SSSI), 3 National Nature Reserves (NNR), and 9 Local Nature Reserves (LNR). Additionally, there are a number of internationally designated sites; 1 Ramsar sites, 42 Special Area of Conservation (SAC), and 8 Special Protection Areas (SPA).■ The county boasts a diverse range of habitats, including ancient woodlands, chalk grasslands, wetlands, rivers, and heathlands. The Wiltshire & Swindon Biological Records Centre (WSBRC) has mapped these habitats using a combination of field survey data and aerial photography, achieving 85% coverage of the area. Priority habitats in Wiltshire include lowland meadows, calcareous grasslands, and ancient semi-natural woodlands [92].■ Wiltshire supports a variety of mammal species, including badgers, otters, and several bat species such as the greater horseshoe bat. The county is also home to the rare hazel dormouse and water vole [82].■ The region is important for bird species, particularly those associated with chalk grasslands and wetlands. Notable species include the stone-curlew, skylark, and lapwing. The Salisbury Plain is a key area for ground-nesting birds [82].■ Wiltshire is rich in invertebrate diversity, with numerous butterfly species such as the marsh fritillary and Duke of Burgundy [82].■ The diverse habitats support a wide range of plant species, including rare orchids, wildflowers, and ancient woodland flora. Chalk grasslands are particularly notable for their plant diversity [82].■ Biodiversity Action Plans (BAPs): Wiltshire has developed BAPs to guide conservation efforts for priority habitats and species. These plans outline specific actions to protect and enhance biodiversity [82].■ Landscape Biodiversity Areas (LBAs): LBAs represent the core landscape types of the county and provide a framework for landscape-scale conservation. These areas are underpinned by BAPs and aim to enhance habitat connectivity and resilience [82].■ Community Involvement: Local organizations, such as the Wiltshire Wildlife Trust, work with communities and landowners to promote wildlife-friendly practices and engage the public in conservation activities [82].■ Conservation efforts in Wiltshire are robust, with initiatives like Biodiversity Net Gain (BNG) becoming a statutory requirement for all planning applications as of January 2024, ensuring that development projects enhance natural habitats. Wiltshire Council are currently developing the Wiltshire and Swindon Local Nature Recovery Strategy, the council are currently developing a draft strategy, prior to public consultation.

90 RSPB, The Severn Estuary. Available Online At: <https://Rspb.Org.Uk/Helping-Nature/What-We-Do/Influence-Government-And-Business/Casework/The-Severn-Estuary>

⁹¹ WECA, West of England Climate and Ecological Strategy and Action Plan 2023, available online at: <https://www.westofengland-ca.gov.uk/wp-content/uploads/2023/04/West-of-England-Climate-and-Ecological-Strategy-and-Action-Plan-2023.pdf>

⁹² Wiltshire & Swindon Biological Records Centre, 2024, Habitats, Available at: [Habitats - Wiltshire & Swindon Biological Records Centre \(wsbrc.org\)](https://www.wsbrc.org.uk/habitats)

Table B-4 Landscape and Townscape

Local Authority	Current Baseline
BCP & Dorset	<ul style="list-style-type: none">■ 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 [93].■ 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 download, 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 km², 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 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.
Gloucestershire	<ul style="list-style-type: none">■ 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 [94].■ 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 [86].■ 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 [86].■ 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 [86].■ 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 [95].■ 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 [96].■ The Forest of Dean LCA is another significant area, 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 [97].■ 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.
West of England Combined Authority and North Somerset	<ul style="list-style-type: none">■ In WECA and North Somerset, there are two National Landscapes, Mendip Hills National Landscape, 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) [94].■ 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 [98].■ 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.
Wiltshire	<ul style="list-style-type: none">■ In Wiltshire, there are three national Landscapes, the Cotswolds National Landscape, the Cranbourne Chase National Landscape, and North Wessex Downs National Landscape.■ 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 [99].

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

94 Gloucestershire County Council, 2017, Landscape and Townscape Appraisal: Llanthony Road Gloucester South West Bypass, Available at: [appendix-b3-llanthony-landscape-townscape.pdf \(gloucestershire.gov.uk\)](#)

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

96 Cotswolds National Landscape, 2004, Landscape Character Assessment, Available at: [Landscape Character Assessment - Cotswolds National Landscape \(cotswolds-nl.org.uk\)](#)

97 Forest of Dean District Council, 2000, Landscape character assessment, Available at: [Landscape character assessment - Forest of Dean District Council](#)

98 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 \(inconsult.uk\)](#)

99 Wiltshire Council, 2024, Landscape Conservation, Available at: [Landscape conservation - Wiltshire Council](#)

Local Authority	Current Baseline
	<ul style="list-style-type: none">■ 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 [90].■ The county includes several NCAs: North Wessex Downs (rolling chalk hills, arable farming), Salisbury Plain 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 [100].

Table B-5 Historic Environment

Local Authority	Current Baseline
BCP & Dorset	<ul style="list-style-type: none">■ There are a number of designated assets throughout BCP and Dorset [101]:<ul style="list-style-type: none">- Scheduled Monuments - BCP: 15 Dorset: 1,001- Listed Buildings - BCP: 738 Dorset: 9,215- Protected Wrecks - BCP: 3 Dorset: 4- Registered Parks and Gardens - BCP: 3 Dorset: 36- Conservation Areas - BCP: 48 Dorset: 186■ Historic England’s Heritage at Risk (HAR)[102] programme helps to understand the overall state of England’s heritage sites. It identifies those sites that are most at risk of being lost as a result of neglect, decay or inappropriate development. There are 11 and 208 heritage assets on the HAR register in BCP and Dorset respectively [103].■ The National Landscape designations within BCP and Dorset are also rich archaeological resources, which was one of the key reasons for their designation. Dorset National Landscape has a wealth of heritage, with features that span all ages, from the Neolithic to the present day [104]. The South Dorset Ridgeway is one such feature, comprising an extensive Neolithic – Bronze Age ceremonial landscape considered to have an archaeological significance equivalent to the World Heritage Site of Stonehenge and Avebury [105].■ Swanage Railway is a heritage railway line situated along the Isle of Purbeck, Dorset. It is a popular attraction, offering a living and working museum that provides a green corridor between Wareham and Swanage[106]. The Swanage Railway thrived from the 1880s to the 1940s, until almost seven miles of the line was demolished in 1972, being relayed by railway and community volunteers for 30 years [107].
Gloucestershire	<ul style="list-style-type: none">■ There are a number of designated assets throughout Gloucestershire [108]:<ul style="list-style-type: none">- Scheduled Monuments - 478- Listed Buildings - 12966- Registered Parks and Gardens - 57- Conservation Areas - 253■ Gloucestershire boasts a rich array of listed buildings, with over 14,000 entries on the National Heritage List for England. These include notable structures such as Gloucester Cathedral, Tewkesbury Abbey, and Berkeley Castle [109].■ The county is home to numerous protected sites, including National Landscapes like the Cotswolds and the Wye Valley. These areas are protected for their scenic beauty and cultural heritage [110].■ Gloucestershire contains over 478 scheduled monuments, which are legally protected archaeological sites. Examples include the Neolithic long barrow at Belas Knap and the Roman villa at Chedworth [111].■ The county features 57 registered parks and gardens of historic interest, such as the gardens at Highgrove House and the parkland at Westonbirt Arboretum.■ Historic England’s Heritage at Risk (HAR) programme helps to understand the overall state of England’s heritage sites. It identifies those sites that are most at risk of being lost as a result of neglect, decay or inappropriate development. In Gloucestershire, there are 93 sites on the HAR register.■ The Severn Vale and the Cotswold escarpment are significant historic landscapes, featuring a mix of prehistoric barrows, Iron Age hillforts, and medieval field systems. These sites illustrate the region’s industrial development from the post-medieval period onwards [102].■ Gloucester Cathedral, was originally founded as an abbey in the 7th century becoming a cathedral in 1541. It is a renowned example of Perpendicular Gothic architecture. attracting around 350,000 visitors annually. Regionally, it serves as a major cultural and tourist attraction, contributing to the local economy and community identity. Nationally, it is recognised as a site of historical importance, reflecting England’s religious and royal heritage.

100 Wiltshire County Council, 2008, South Wiltshire Settlement Settling Assessment 2008- Chapter 2: Methodology, Available at: [Microsoft Word - 11106001R SettlementSettings_DW_02-08.doc \(wiltshire.gov.uk\)](#)

101 Historic England, Search the List. Available online at: [Search the List - Find listed buildings, monuments, battlefields and more | Historic England](#)

102 Heritage at Risk (2022) Available at: <https://experience.arcgis.com/experience/cb50293b60cd42e98f7d312cec9115a9/>

103 Historic England (2023) Heritage at Risk, South West Register. Available online at: [Historic England - Heritage at Risk Register 2023, South West](#)

104 Dorset National Landscape, Reading the past. Available online at: [Reading the Past | Dorset National Landscape \(dorset-nl.org.uk\)](#)

105 Dorset Council, South Dorset Ridgeway. Available online at: [South Dorset Ridgeway - Dorset Council](#)

106 Swanage Railway, The Environment at Swanage Railway. Available online at: <https://www.swanagerailway.co.uk/environment>

107 Andrew P.M. Wright, History. Available online at: <https://www.swanagerailway.co.uk/history>

108 Historic England, Search the List. Available online at: [Search the List - Find listed buildings, monuments, battlefields and more | Historic England](#)

109 Gloucestershire County Council, 2024, Request archaeological data from Gloucestershire’s Historic Environment Record (HER), Available at: [Request archaeological data from Gloucestershire’s Historic Environment Record \(HER\) | Gloucestershire County Council](#)

110 Heritage Gateway, 2024, Gloucestershire Historic Environment Record, Available at: [HeritageGateway - Historic Environment Record Details](#)

111 Stephen Crowther and Amanda Dickson, 2016, An Archaeological Survey in the Severn Vale, Gloucestershire: A Highlight Report for the National Mapping Programme, Available at: [Severn Vale NMP: \(historicengland.org.uk\)](#)

Local Authority	Current Baseline
	<ul style="list-style-type: none">■ The Cotswolds also played a significant role during the English Civil War, with several battles and skirmishes taking place in the area [112].
West of England Combined Authority and North Somerset	<ul style="list-style-type: none">■ The West of England region is rich in cultural heritage assets such as listed buildings, scheduled monuments and archaeological remains, possessing a diverse heritage. Its assets span all periods of human activity from earliest prehistoric times to the present day.■ Information on designated assets have been sourced from Historic England’s National Heritage List [113]. Designated assets within each of the local authorities have been set out in Table below.■ There are a number of designated assets throughout Wiltshire [114]:<ul style="list-style-type: none">- Scheduled Monuments – B&NES: 58, Bristol City: 24, North Somerset: 69, and South Gloucestershire: 38- Listed Buildings – B&NES: 3,731, Bristol City: 2,148, North Somerset: 1,077, and South Gloucestershire: 2,087- Registered Parks and Gardens - B&NES: 15, Bristol City: 10, North Somerset: 8, and South Gloucestershire: 8- Conservation Areas - B&NES: 35, Bristol City: 33, North Somerset: 36, and South Gloucestershire: 30- Battlefields – B&NES: 1, Bristol City: 0, North Somerset: 0, and South Gloucestershire: 0■ There are 1,348 entries on the HAR Register for 2023 in the South West, 31 fewer than on the previous Register for 2022. In the four regions, there are 52 sites on the HAR register, 12 in Bristol, 8 in North Somerset, 16 in South Gloucestershire and 16 in Bath and North East Somerset, of which 36% are Building and Structure entries and 32% are Archaeological entries [115].■ The region is home to numerous archaeological sites, including prehistoric settlements, Roman villas, and medieval structures. Notable sites include the Iron Age hillfort at Worlebury Camp, which offers insights into early defensive strategies, and the Roman villa at Gatcombe, which provides evidence of Roman domestic architecture and lifestyle.■ North Somerset boasts several registered parks and gardens of historic interest. These include the Victorian gardens at Tyntesfield, known for their intricate design and horticultural variety, and the landscaped grounds of Ashton Court, which feature a mix of formal gardens and natural woodlands [116].■ The region’s historic landscapes include the Mendip Hills, the North Somerset Levels, and the Gordano Valley. These areas are characterized by their ancient field systems, historic woodlands, and traditional agricultural practices. The Mendip Hills, for example, contain numerous prehistoric barrows and ancient trackways [117].■ North Somerset’s industrial heritage is evident in its historic mills, quarries, and transport infrastructure. The area played a significant role in the development of the coal mining and limestone quarrying industries during the 19th century. Notable sites include the Nailsea Glassworks, which was a major producer of glass in the 19th century, and the remains of the Portishead Railway, which facilitated industrial transport [118].■ Bath was designated as a World Heritage Site in 1987. The World Heritage Site is currently classified as being in ‘very good’ state of conservation. This site is recognised as having Outstanding Universal Value and the City of Bath World Heritage Site Management Plan notes that this is to be understood, protected and sustained. The reasons for inscription, or key attributes of ‘Outstanding Universal Value’, are summarised as:<ul style="list-style-type: none">- Roman archaeology- The hot springs- Georgian town planning- Georgian architecture- The green setting of Bath in the hollow hills- Georgian architecture reflecting 18th century social ambitions [119]
Wiltshire	<ul style="list-style-type: none">■ Wiltshire’s Historic Environment Records (HER) is a comprehensive database containing information on over 20,000 archaeological sites, monuments, and finds. This record is essential for understanding the county’s rich historical and archaeological heritage [120].■ There are a number of designated assets throughout Wiltshire [121]:<ul style="list-style-type: none">- Scheduled Monuments - 1310- Listed Buildings - 12299- Registered Parks and Gardens - 43- Conservation Areas - 250■ Wiltshire is renowned for its significant archaeological sites, including the world-famous Stonehenge and Avebury stone circles, both of which are UNESCO World Heritage Sites. Other notable sites include the Iron Age hillfort at Old Sarum and the Roman town of Cunetio [104].■ The county features a substantial number of listed buildings, reflecting its architectural diversity. These include medieval churches, stately homes, and historic cottages. Noteworthy examples are Salisbury Cathedral, with its iconic spire, and the 16th-century Longleat House [122].■ Wiltshire contains over 1,000 scheduled monuments, which are legally protected due to their national importance. Examples include the prehistoric Silbury Hill, the largest artificial mound in Europe, and the medieval castle at Devizes [105].

112 Ben Johnson, 2023, The Cotswolds, Available at: [The History of the Cotswolds \(historic-uk.com\)](#)

113 Historic England, National Heritage List [online] available at: <https://historicengland.org.uk/listing/the-list/>

114 Historic England, Search the List. Available online at: [Search the List - Find listed buildings, monuments, battlefields and more | Historic England](#)

115 Historic England, Heritage at Risk Register (2023). Available online at: <https://historicengland.org.uk/images-books/publications/har-2023-registers/sw-har-register2023/>

116 North Somerset Council, 2015, Sites and Policies Plan Part 1- Development Management Policies, Available at: [Layout 1 \(n-somerset.gov.uk\)](#)

117 Helen Johnson, 2024, North Somerset: Historic landscape around Tickenham Ridge, Available at: [North Somerset: Historic landscape around Tickenham Ridge. | The Churches Conservation Trust \(visitchurches.org.uk\)](#)

118 Somerset Industrial Archaeological Society, 2024, Homepage, Available at: [Somerset Industrial Archaeological Society \(sias.me.uk\)](#)

119 Bath World Heritage, World Heritage Site Management Plan 2016-2022. Available online at: <https://www.bathworldheritage.org.uk/sites/www.bathvenues.co.uk/files/2022-09/World%20Heritage%20Site%20Management%20Plan%202016-2022.pdf>

120 Wiltshire Council, 2024, Wiltshire and Swindon Historic Environment Record, Available at: <https://www.wiltshire.gov.uk/article/889/Archaeology-and-historic-environment-record>

121 Historic England, Search the List. Available online at: [Search the List - Find listed buildings, monuments, battlefields and more | Historic England](#)

122 Wiltshire & Swindon History Centre, 2024, Wiltshire’s Historic Environment Record – About to get Even Bigger and Better! Available at: <https://wshc.org.uk/wiltshire-historic-environment-record-to-get-bigger-and-better/>

Local Authority	Current Baseline
	<ul style="list-style-type: none">■ The county boasts 43 registered parks and gardens of historic interest, such as the landscaped grounds of Stourhead, known for its picturesque lakes and classical temples, and the gardens at Bowood House [123].■ In Wiltshire, there are 159 sites on the HAR register.■ Wiltshire’s historic landscapes include the chalk downlands, the Salisbury Plain, and the wooded valleys of the Avon and Nadder rivers. These areas are characterized by ancient field systems, historic woodlands, and traditional agricultural practices [106].■ Wiltshire’s industrial heritage is evident in its historic mills, canals, and railway infrastructure. The Kennet and Avon Canal, for example, played a crucial role in the county’s industrial development during the 19th century [106].

Table B-6 Air Quality

Local Authority	Current Baseline
BCP & Dorset	<ul style="list-style-type: none">■ Air quality significantly impacts human health, especially with long-term exposure. The World Health Organisation (WHO) identifies it as a major environmental risk. Reducing air pollution can lower rates of stroke, heart disease, lung cancer, and respiratory diseases. In 2019, 99% of the global population lived in areas not meeting WHO air quality guidelines, with 4.2 million premature deaths attributed to ambient air pollution [124].■ Poor air quality harms ecosystems, with sulphur and nitrogen emissions particularly affecting their ability to function and grow [125].■ In 2020, the transport sector significantly contributed to air pollution in the UK, accounting for a third of nitrogen oxides, 14% of PM_{2.5}, and 12% of PM₁₀ emissions [126].■ BCP and Dorset have lower levels of air pollution compared to the UK overall [127]. 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 [128]. The region also meets AQO standards for PM₁₀ and PM_{2.5}.■ 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 NO_x, although a few have been declared for SO₂. 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.
Gloucestershire	<ul style="list-style-type: none">■ The Gloucestershire area contains six AQMA, Cheltenham, Birdlip, Lydney, Barton Street, Priory Road, and Painswick.■ The county exhibits a decreasing trend in monitored NO₂ concentrations. PM_{2.5} concentrations, based on dispersion modelling, demonstrate compliance with the annual mean objective in 2019 [129].■ 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 PM2.5 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%). Two public health strategy documents, the Gloucestershire Air Quality and Health Strategy and the Gloucestershire Joint Health and Wellbeing Strategy 2019-2030, are also highlighted to demonstrate the synergy between public health and air quality work [130].
West of England Combined Authority and North Somerset	<ul style="list-style-type: none">■ There are nine AQMAs across the West of England region. One is located in Bristol B&NES and three within South Gloucestershire. All AQMAs have been declared for exceedances of NO₂ with Bristol AQMA also exceeding in PM₁₀.■ The AQMAs are:<ul style="list-style-type: none">- 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, particularly if appliances are misused or inappropriate fuels are used [131].■ 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.
Wiltshire	<ul style="list-style-type: none">■ 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 [132].

123 Wiltshire & Swindon History Centre, 2024, Archaeology, Available at: [Information Available - Wiltshire and Swindon History Centre \(wshc.org.uk\)](https://www.wshc.org.uk)

124 World Health Organisation (2022) Ambient (outdoor) air pollution. Available online at: [https://www.who.int/en/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/en/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)

125 UNECE. Air Pollution, Ecosystems and Biodiversity. Available online at: [Air pollution, ecosystems and biodiversity | UNECE](https://www.unep.org/air-pollution)

126 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>

127 Defra. UK Air Information Resource. UK Ambient Air Quality Interactive Map. Available online at: [UK Ambient Air Quality Interactive Map \(defra.gov.uk\)](https://uk-air.defra.gov.uk/air-pollution/uk-eu-limits)

128 Defra. UK Air Information Resource. UK Air Quality Limits. Available online at: <https://uk-air.defra.gov.uk/air-pollution/uk-eu-limits>

129 https://www.cheltenham.gov.uk/info/92/air_quality/1846/air_quality_reports/2#:~:text=This%20appraisal%20report%20covers%20the%20final%20air%20quality%20action

130 https://www.cheltenham.gov.uk/info/92/air_quality/1846/air_quality_reports/2#:~:text=This%20appraisal%20report%20covers%20the%20final%20air%20quality%20action

131 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](#)

Local Authority	Current Baseline
	<ul style="list-style-type: none"> Two pollutants cause most concern within Wiltshire: nitrogen dioxide (NO₂) and particulate matter (PM₁₀) primarily from motor vehicles [133]. There are currently eight AQMAs in 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) [134]. There are three separate AQMAs declared for Salisbury: 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 the Highways England. Maps of the Wiltshire AQMAs are available on the UK-Air website.

Table B-7- Climate Change and Greenhouse Gases

Local Authority	Current Baseline
BCP & Dorset	<ul style="list-style-type: none"> In 2022, Dorset emitted a total 2233.76 kt CO₂e from all sources. Of these total emissions, transport made up 704.6 kt CO₂e totalling 32% of all emissions. This is lower than the national average of 33% and the regional average of 36% [135]. In BCP, the percentage of emissions from transport was slightly higher (1265.43 kt CO₂e) making up 34% of the total emissions – higher than the national average but still lower than the regional averages [136]. Per capita emissions in BCP is significantly lower than the national (5.1 tCO₂e) and regional (5.2 tCO₂e) averages at 3.1 tCO₂e, whilst Dorset is higher than both the regional and national averages at 5.8 tCO₂e [137]. This is the joint highest in the Western Gateway STB area. BCP Council declared a climate and ecological emergency in July 2019. They have committed to making the council and the area carbon neutral by 2030. Their plans include reducing emissions, increasing renewable energy use, and enhancing biodiversity. Dorset Council declared a climate emergency in May 2019. They have set a target to become carbon-neutral by 2040. Their initiatives focus on reducing carbon emissions, promoting sustainable transport, and protecting natural habitats [138] 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 [139].
Gloucestershire	<ul style="list-style-type: none"> In 2022, Gloucestershire emitted a total of 3,504.16 kt CO₂e from all sources. Of these total emissions, transport made up 1,399.49 kt CO₂e totalling 40% of all emissions. This is higher than the national average of 33% and the regional average of 36% [140]. In 2019 Gloucestershire County Council (GCC) and all other Gloucestershire authorities each declared a climate emergency. GCC adopted a Climate Change Strategy setting out the following carbon reduction targets: <ul style="list-style-type: none"> The County Council's own operational emissions to be net zero by 2030; Emissions from all sources across the county to be net zero by 2050; The county to work with partners to deliver an 80% reduction in emissions by 2030, relative to 2005 [141] 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: <ul style="list-style-type: none"> 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 [142].
West of England Combined	<ul style="list-style-type: none"> In 2022, the city of Bristol emitted a total of 1570.24 kt CO₂e from all sources. Of these total emissions, transport made up 529.25 kt CO₂e totalling 34% of all emissions. This is higher than the national average of 33% but lower than the regional average of 36% [143].

133 [Air Quality Strategy for Wiltshire 2019-2024](#)

134 [Wiltshire Council 2022 Air Quality Annual Status Report \(ASR\)](#)

135 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

136 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

137 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

138 [Dorset Council Climate and Ecological Emergency](#)

139 [The areas of Dorset that could be underwater by 2050, Bournemouth Echo](#)

140 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

141 [Gloucestershire County Council: Gloucestershire Economic Growth Joint Committee: Decarbonising Transport 19/05/2022](#)

142 [Gloucestershire county council flood risk maps](#)

143 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

Local Authority	Current Baseline																												
Authority and North Somerset	<div><div><div><div></div><div>In 2022, Bath and Northeast Somerset emitted a total of 717.11 kt CO2e from all sources. Of these total emissions, transport made up 243.97 kt CO2e totalling 34% of all emissions. This is higher than the national average of 33% but lower than the regional average of 36% [144].</div></div><div><div></div><div>In 2022 South Gloucestershire emitted a total of 1,660.02 kt CO2e from all sources. Of these total emissions, transport made up 857.94 kt CO2e totalling 52% of all emissions. This is much higher than the national average of 33% and the regional average of 36% [145].</div></div><div><div></div><div>The West of England has historically had high car dependency. In 2020, transport accounted for 27% of the UK’s greenhouse gas emissions, the largest sector. In the Combined Authority, transport emissions were higher at 32%.</div></div><div><div></div><div>Table B-7-A shows the breakdown of territorial emissions generated by Local Authorities compared to regional and England averages</div></div></div><div><div>Table B-7-A -Territorial emissions generated by Local Authorities (2022).</div><table><tr><th></th><th>Total Emissions (ktCO2e)</th><th>Transport Related Emissions (ktCO2e)</th><th>Per Capita Emissions (tCO2e)</th></tr><tr><td>B&NES</td><td>760.7</td><td>233.3</td><td>4.0</td></tr><tr><td>City of Bristol</td><td>1,625.8</td><td>480.9</td><td>3.5</td></tr><tr><td>North Somerset</td><td>1,212.2</td><td>504.8</td><td>5.6</td></tr><tr><td>South Gloucestershire</td><td>1,745.6</td><td>870.4</td><td>6.0</td></tr><tr><td>South West</td><td>32,216</td><td>8,527.1</td><td>5.6</td></tr><tr><td>England</td><td>309,040</td><td>94,359.3</td><td>5.5</td></tr></table></div><div><div><div></div><div>In the Combined Authority, cars contribute to 65% of emissions, LGVs and HGVs each contribute 16%, rail 2%, and public service vehicles 1% [146].</div></div><div><div></div><div>In the region, 39% of transport emissions come from journeys up to 5 miles, and 24% from journeys over 25 miles. By road type, 54% of emissions are from local roads, 36% from the Strategic Road Network, and 10% from the Major Road Network [147].</div></div><div><div></div><div>The West of England Combined Authority declared a climate emergency in July 2019. Key points from their declaration and subsequent actions are:</div></div><div><div></div><div>Carbon Neutral by 2030: WECA committed to making the region carbon neutral by 2030 [148].</div></div><div><div></div><div>Climate Emergency Action Plan: In October 2020, they approved a comprehensive Climate Emergency Action Plan. This plan outlines specific actions and targets to achieve their carbon neutrality goal [149].</div></div><div><div></div><div>Five Key Challenges: The action plan addresses five major challenges: reducing emissions, adapting to climate risks, enhancing biodiversity, promoting sustainable transport, and supporting a green economy [150]</div></div><div><div></div><div>In the combined authority several areas are at risk of flooding due to climate change: some key areas are:<div><div>- 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</div><div>- Bath and Northeast Somerset, where the River Avon also poses a flood risk, especially in Bath city centre and the surrounding low-lying areas</div><div>- 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 [151].</div></div></div></div></div></div>		Total Emissions (ktCO2e)	Transport Related Emissions (ktCO2e)	Per Capita Emissions (tCO2e)	B&NES	760.7	233.3	4.0	City of Bristol	1,625.8	480.9	3.5	North Somerset	1,212.2	504.8	5.6	South Gloucestershire	1,745.6	870.4	6.0	South West	32,216	8,527.1	5.6	England	309,040	94,359.3	5.5
	Total Emissions (ktCO2e)	Transport Related Emissions (ktCO2e)	Per Capita Emissions (tCO2e)																										
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South West	32,216	8,527.1	5.6																										
England	309,040	94,359.3	5.5																										
Wiltshire	<div><div><div><div></div><div>In 2022, Wiltshire emitted a total of 3,000.24 kt CO2e from all sources. Of these total emissions, transport made up 1,127.02 kt CO2e totalling 38% of all emissions. This is higher than the national average of 33% and the regional average of 36% [152].</div></div><div><div></div><div>Wiltshire Council declared a climate emergency in February 2019. Here are the key points from their declaration and subsequent actions:</div></div><div><div></div><div>Carbon Neutral by 2030: The council committed to making both the council’s operations and the entire county of Wiltshire carbon neutral by 2030 [153].</div></div></div></div>																												

144 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

145 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

146 WSP, Quantified Carbon Reduction Study (2024).

147 WSP, West of England Combined Authority Quantified Carbon Reduction Study (2024).

148 [West Of England Combined Authority Committee And Item 11 West Of England Joint Committee 25 June 2021 Report Summary Sheet Climate Emergency Action Plan Update](#)

149 [West Of England Combined Authority Committee And Item 11 West Of England Joint Committee 25 June 2021 Report Summary Sheet Climate Emergency Action Plan Update](#)

150 [West Of England Combined Authority Committee And Item 11 West Of England Joint Committee 25 June 2021 Report Summary Sheet Climate Emergency Action Plan Update](#)

151 [West of England Combined Authority Climate and Ecological Action Plan](#)

152 Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy, UK local authority and regional greenhouse gas emissions statistics, 2022 (released June 2024) online available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

153 [Update on Council's Update on Council's response to the climate emergency](#)

Local Authority	Current Baseline
	<ul style="list-style-type: none">Climate Strategy: They have developed a comprehensive climate strategy, which includes regular progress updates every six months on the actions being taken to address the climate emergency [154].Task Groups and Initiatives: The council has established task groups and various initiatives to reduce carbon emissions, promote renewable energy, and enhance sustainability across the county [155].In Wiltshire, several areas are at risk of flooding due to climate change, although coastal erosion is not a concern since the county is inland. Key areas at risk include:<ul style="list-style-type: none">Trowbridge: This town is prone to flooding from the River Biss, especially during heavy rainfallChippenham: The River Avon runs through Chippenham, making it susceptible to river floodingSalisbury: Areas around the River Avon and its tributaries in Salisbury are at risk of floodingMalmesbury: This town is vulnerable to flooding from the River Avon and its tributaries [156].

Table B-8- Material Assets

Local Authority	Current Baseline
BCP and Dorset	<p>Soils and Agricultural Land</p> <ul style="list-style-type: none">BCP and Dorset feature a mix of soil types, including clays, sands, and gravel soils. These soils are generally thin and support heathlands.According to Natural England’s Agricultural Land Classification [157], much of Dorset’s agricultural land is of good to moderate quality (grade 3). Areas around Bridport, Dorchester, and Shaftesbury are rated very good to excellent (grades 1-2). Land east towards BCP, near Wimborne Minster and Wareham, is rated poor to very poor (grades 4-5). BCP mainly consists of urban land. <p>Geology</p> <ul style="list-style-type: none">BCP and Dorset are underlain by six Principal Aquifers [158]: Chalk, Lower Greensand, Corallian Limestone, Oolites, Triassic Sandstone, and Permian Sandstone. These aquifers provide significant water storage and support water supply and river base flow but are highly vulnerable to pollution. The Triassic Sandstone, covering most of BCP and Dorset, can supply up to 125 l/sec of hard to moderately hard water.The geology of BCP and Dorset mainly consists of sedimentary bedrock from the Jurassic and Palaeogene periods, including sandstones, mudstones, limestones, chalks, and clays [159]. The Jurassic Coast, designated as England’s only natural World Heritage Site in 2001, is famous for its fossil sites and features like Durdle Door [160].The Wareham Basin in Dorset, particularly the Purbeck ball clay industry, is of national and international importance [161] for white ware ceramics [162], though remaining reserves are low and environmentally constrained. Purbeck is also known for its petroleum geology and thus, oil extraction industry [163], with the Wytch Farm oil field being the largest onshore oil field in western Europe [164]. and further had a license granted for drilling off the coast in 2019. In 2019, a license was granted for offshore drilling, but a major incident in 2023 involving a crude oil spill into Poole Harbour sparked controversy [165]. <p>Energy</p> <ul style="list-style-type: none">BCP and Dorset Councils aim to achieve net zero by 2030 and 2040, respectively, necessitating more renewable energy. Dorset Council’s Renewable Energy Action Plan focuses on increasing renewable energy generation by identifying sites and creating policies [166]. Meanwhile, BCP Council is developing a 2050 Climate Action Plan and has already powered all council buildings with 100% renewable electricity [167].BCP and Dorset have a total of 20,396 renewable energy sites [168], with photovoltaic energy leading in electricity generation. <p>Transport Infrastructure</p> <ul style="list-style-type: none">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:

154 [Update on Council's Update on Council's response to the climate emergency](#)

155 [Wiltshire Council continues commitment to tackling the climate emergency](#)

156 [Wiltshire Local Flood Risk Management Strategy](#)

157 Natural England (2010) Regional Agricultural Land Classification. Available online at: [Agricultural Land Classification Map South West Region - ALC006 \(naturalengland.org.uk\)](#)

158 British Geological Survey, Principal aquifers in England and Wales. Available online at: [Principal aquifers in England and Wales | Aquifer, shale and clay maps | Aquifers and shales | Groundwater | Our research | British Geological Survey \(BGS\)](#)

159 British Geological Survey, Geology Viewer. Available online at: https://geologyviewer.bgs.ac.uk/?_ga=2.40981476.739853416.1672832649-1352688571.1672832649

160 UNESCO, United Kingdom Commission. World Heritage sites. Available online at: [World Heritage Sites – UNESCO UK](#)

161 British Geological Survey (2011) Mineral Planning Factsheet: Ball Clay. Available online at: [Mineral planning factsheet : ball clay - NERC Open Research Archive](#)

162 Department for Business, Energy & Industrial Strategy and Department for Energy Security and Net Zero (2019) Extractive industries in the UK: background information on mining and quarrying. Available online at: [Extractive industries in the UK: background information on mining and quarrying - GOV.UK \(www.gov.uk\)](#)

163 West, Ian (2020) Petroleum geology of the south of England - Introduction to Portland - Isle of Wight, Offshore, Basin. Available online at: [Petroleum Geology - the Portland - Isle of Wight Basin \(soton.ac.uk\)](#) Version: 29th July 2020

164 BBC News (2015) UK’s new oil find: How big is it? Available online at: [UK's new oil find: How big is it? - BBC News](#)

165 Sky News (2023) Major incident declared after oil leak from large onshore field in Dorset. Available online at: [Major incident declared after oil leak from large onshore field in Dorset | UK News | Sky News](#)

166 Dorset Council, Renewable energy action plan. Available online at: [Renewable energy action plan - Dorset Council](#)

167 BCP Council, Sustainability and carbon reduction. Available online at: [BCP Council electricity is going green | BCP](#)

168 Defra (2022) Regional Renewable Statistics. Available online at: <https://www.gov.uk/government/statistics/regional-renewable-statistics>

Local Authority	Current Baseline
	<ul style="list-style-type: none">- 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- 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. <ul style="list-style-type: none">■ 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.
Gloucestershire	<p>Soils and Agricultural Land</p> <ul style="list-style-type: none">■ The county features a mix of soil types, including clay, loam, and sandy soils. These soils vary in their drainage and fertility, influencing the types of crops that can be grown [169].■ According to the ALC Gloucestershire has areas of high-quality agricultural land, particularly in the Vale of Gloucester and the Severn Vale, which are classified as Grade 2 and 3. These areas are suitable for a wide range of crops [170].■ Soil erosion, compaction, and organic matter decline are ongoing challenges. These issues can affect soil productivity and water quality. Efforts are being made to manage soils sustainably, including crop rotation, reduced tillage, and organic matter enhancement [171]. <p>Geology</p> <ul style="list-style-type: none">■ Forest of Dean in northwest of Gloucestershire features some of the oldest rocks in the county, dating back to the Carboniferous period. The geology includes coal measures, sandstones, and limestones [172].■ The Cotswold Hills, stretching across the eastern part of the county, are primarily composed of Jurassic limestone. This limestone is responsible for the characteristic rolling hills and stone-built villages [173].■ The low-lying area of the Severn Vale between the Forest of Dean and the Cotswolds is dominated by Triassic and Jurassic clays and mudstones. The fertile soils here are ideal for agriculture [174].■ Gloucestershire is underlain by three Principal Aquifers [175]: Oolites, Triassic Sandstone, and Carboniferous Limestone. These aquifers provide significant water storage and support water supply and river base flow but are highly vulnerable to pollution. <p>Energy</p> <ul style="list-style-type: none">■ Gloucestershire has 11,558 renewable energy installations, which is primarily made up of photovoltaics (11,527 installations) <p>Transport Infrastructure</p> <ul style="list-style-type: none">■ 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 [176].■ 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 [177]
West of England Combined Authority and North Somerset	<p>Soils and Agricultural Land</p> <ul style="list-style-type: none">■ The West of England comprises diverse soil types, ranging from brown earths on limestone to poorly draining gleys on clays, reflect its complex geology.■ Rivers like the Chew and Avon have carved gorges in older rocks, while the Frome has formed wide, shallow valleys in younger rocks. Urban areas have heavily modified these rivers. Limestone-derived soils are mainly brown rankers and argillic brown earths.■ Poorly draining gleys are common on clays, while Coal Measure soils are more acidic. This soil variability, due to complex geology, influences diverse habitats and human land use [178].■ Despite over 21% of the West of England being urban, much of the rural landscape is farmed. Livestock rearing dominates, with arable farming in the flatter northeast, featuring larger fields and few hedgerow trees. The southeast has irregular fields and overgrown, species-rich hedges.■ In the Combined Authority and North Somerset , ALC Grade 3 soils are most common, with smaller areas of Grade 1 and 2 soils. <p>Geology</p>

169 Natural England, Regional Agricultural Land Classification Maps. Available at: <https://publications.naturalengland.org.uk/category/5954148537204736>

170 Natural England, Regional Agricultural Land Classification Maps. Available at: <https://publications.naturalengland.org.uk/category/5954148537204736>

171 Gloucestershire Wildlife Trust, Soil Management. Available at: <https://www.gloucestershirewildlifetrust.co.uk/soil-management>

172 Gloucestershire Geology Trust, Forest of Dean Geology. Available at: http://www.glosgeotrust.org.uk/fod_geology.shtml

173 Gloucestershire Geology Trust, Cotswolds Geology. Available at: http://www.glosgeotrust.org.uk/cots_geology.shtml

174 Historic England, Gloucestershire Building Stones of England. Available at: <https://historicengland.org.uk/images-books/publications/building-stones-england-gloucestershire/bse-gloucestershire/>

175 British Geological Survey, Principal aquifers in England and Wales. Available online at: [Principal aquifers in England and Wales | Aquifer, shale and clay maps | Aquifers and shales | Groundwater | Our research | British Geological Survey \(BGS\)](#)

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

177 Gloucestershire County Council (2021) Gloucestershire Local Transport Plan 2020-2041. Available at: <https://glostext.gloucestershire.gov.uk/documents/s68295/LTP%20Cabinet%20Report%20270121%20v1.6%20Final%20Report.pdf>

178 National Character Area Profile, 118: Bristol, Avon Valleys and Ridges [online] available at: <https://mendiphills-nl.org.uk/wp-content/uploads/2010/11/118-Bristol-AVR-final.pdf>

Local Authority	Current Baseline
	<ul style="list-style-type: none">Wiltshire is underlain by six Principal Aquifers [188]: Chalk, Lower Greensand, Corallian Limestone, Oolites, Triassic Sandstone, and Carboniferous Limestone. These aquifers provide significant water storage and support water supply and river base flow but are highly vulnerable to pollution. <p>Energy</p> <ul style="list-style-type: none">Wiltshire has 13,422 renewable energy installations, which is primarily made up of photovoltaics (13,390 installations). <p>Transport Infrastructure</p> <ul style="list-style-type: none">Wiltshire’s highway infrastructure encompasses nearly 4,500km of roads, 3.9 million m² of footways, 1,500 bridges, and over 40,000 streetlights. This extensive network has an estimated replacement value exceeding £5 billion [189]. 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. <p>Public transport includes bus services, with a focus on improving these through initiatives like the Bus Service Improvement Plan [190]. Additionally, there are efforts to enhance cycling and walking infrastructure, with Local Cycling and Walking Infrastructure Plans (LCWIPs) being developed [191]. The area is also well served by a number of railway stations, connecting the county to key cities including Bristol, Reading, and London.</p>

188 British Geological Survey, Principal aquifers in England and Wales. Available online at: [Principal aquifers in England and Wales | Aquifer, shale and clay maps | Aquifers and shales | Groundwater | Our research | British Geological Survey \(BGS\)](#)

189 Wiltshire Council (2018) Well Managed Highways Infrastructure. Available at: <https://cms.wiltshire.gov.uk/documents/s149080/Report%20Well%20Managed%20Highway%20Infrastructure%20Review.pdf>

190 Wiltshire Council, Transport. Available at: <https://www.wiltshire.gov.uk/transport>

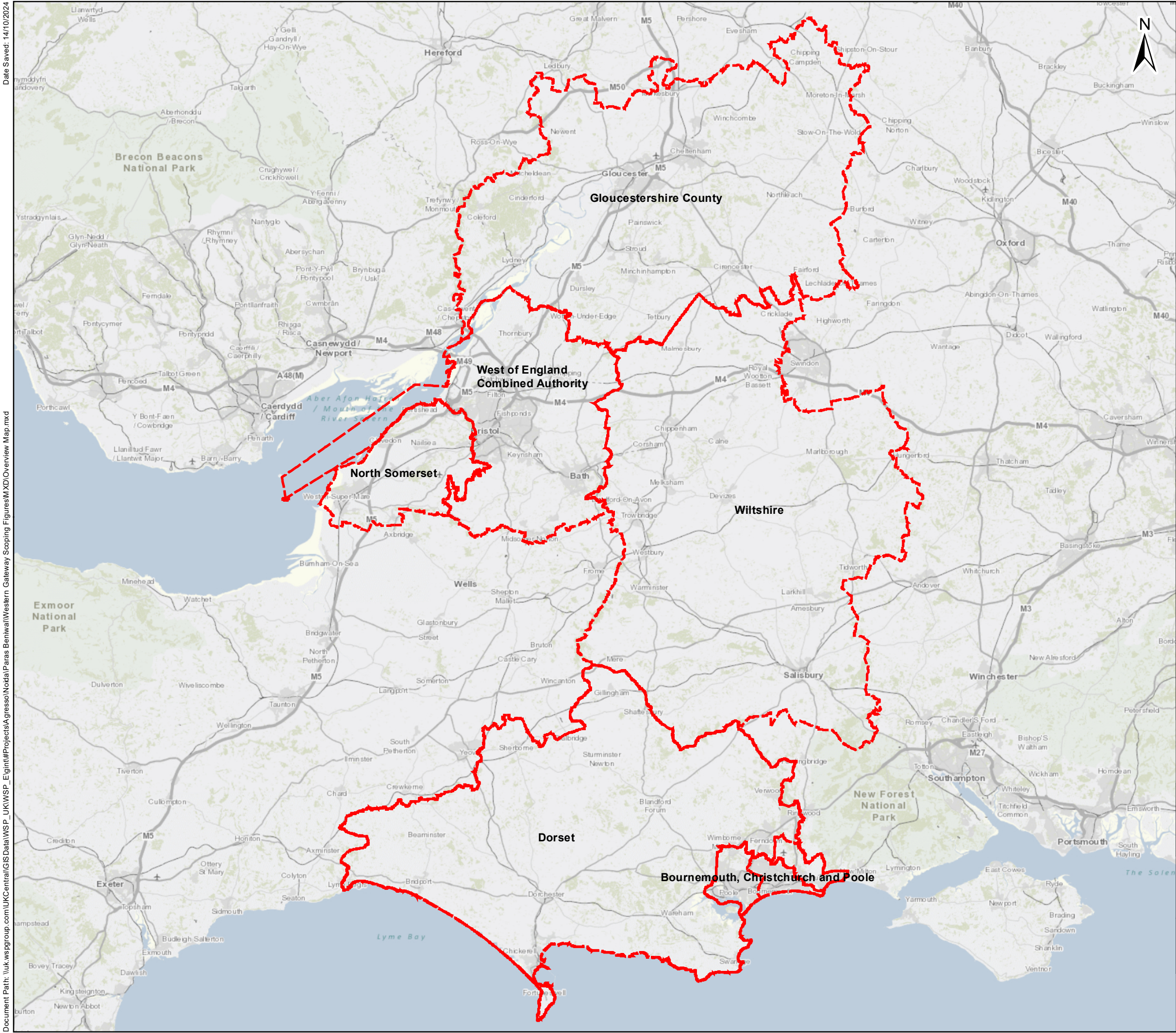
191 Wiltshire Council, Local cycling and Walking Infrastructure Plans (LCWIPs). Available at: <https://www.wiltshire.gov.uk/article/1723/Active-Travel-Infrastructure-Plans>

Appendix C

FIGURES



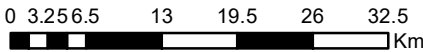
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Key
 Council Boundary



Scale: 1:5,000,000



Client:

Western Gateway
Sub-national Transport Body

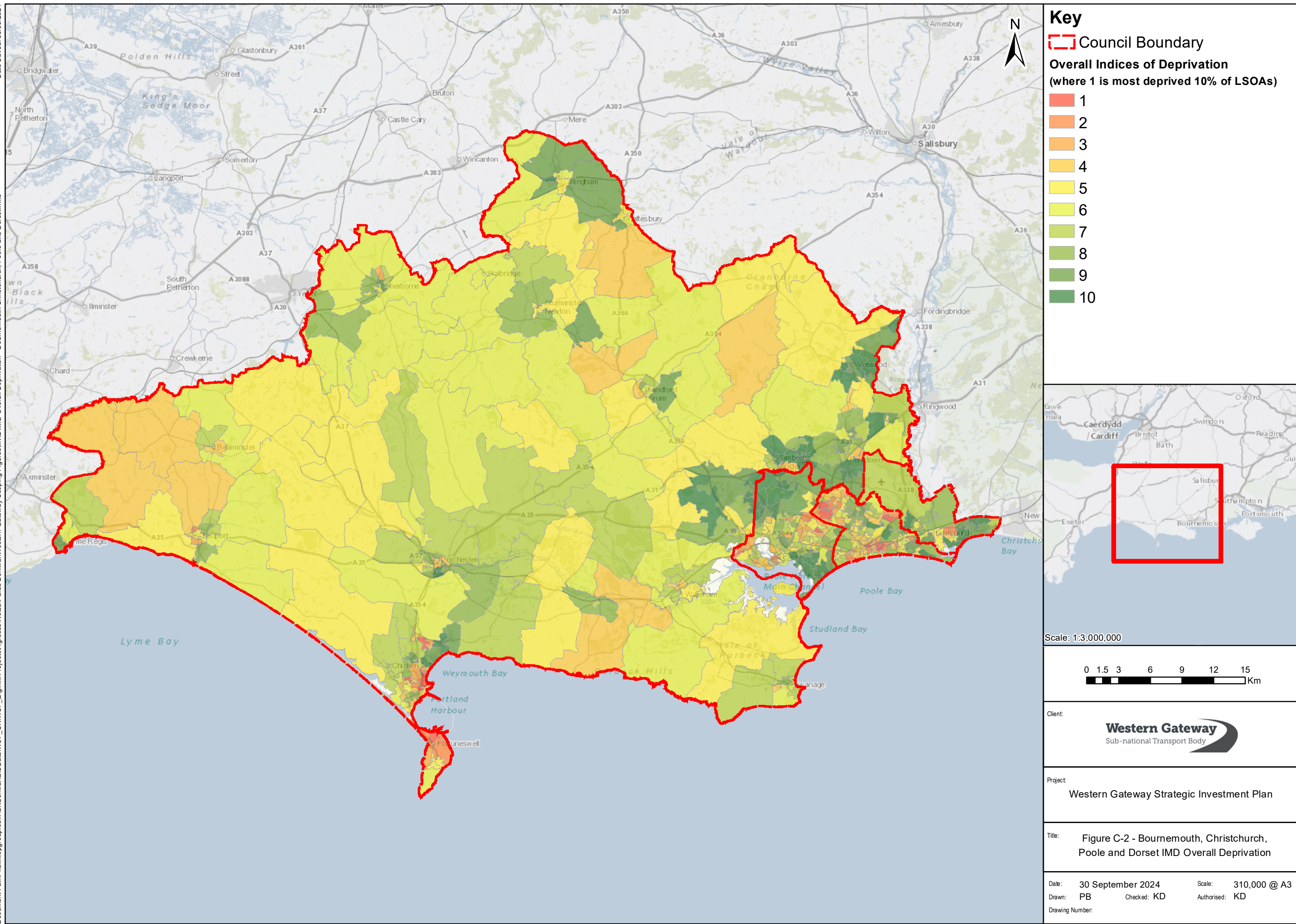
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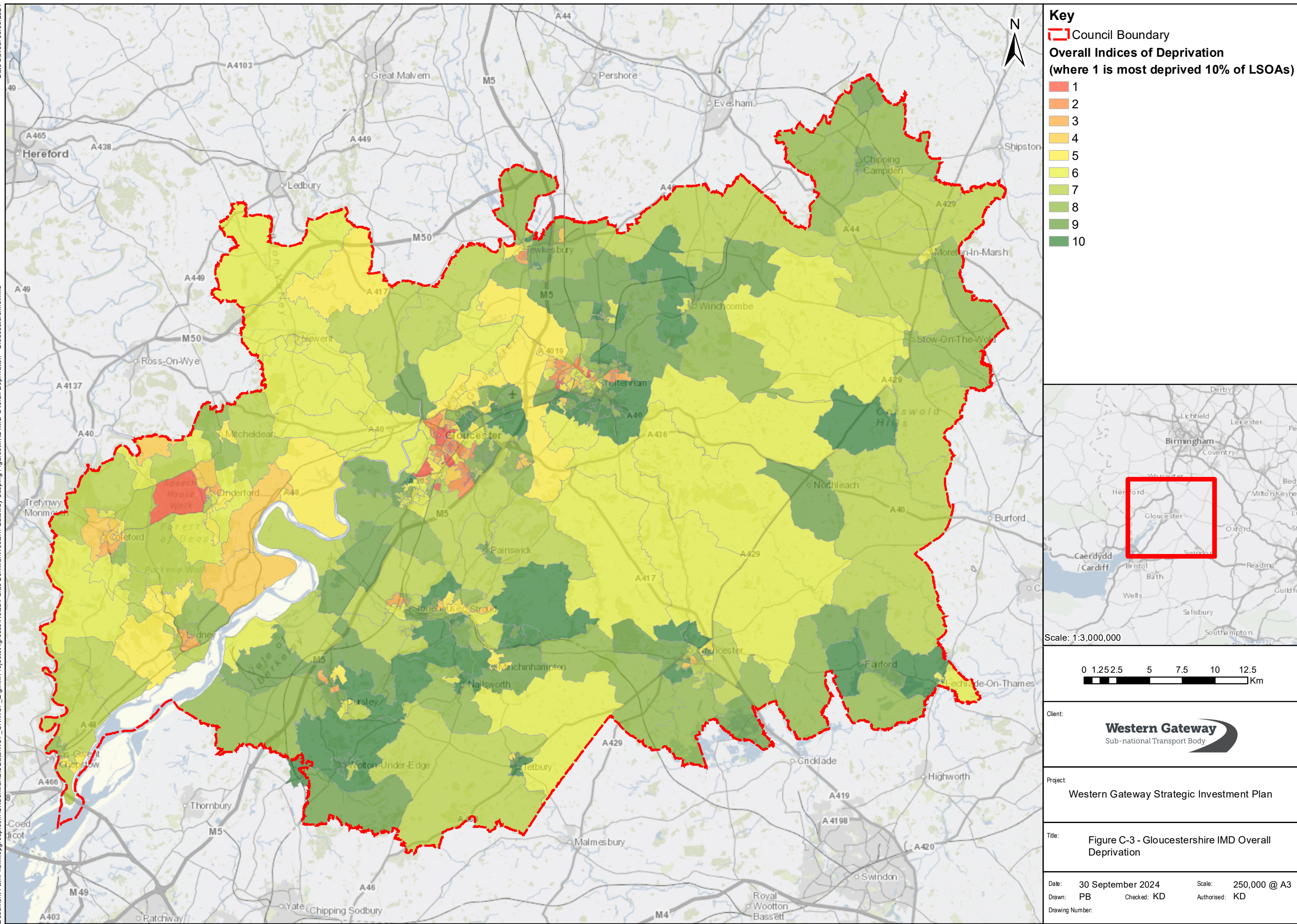
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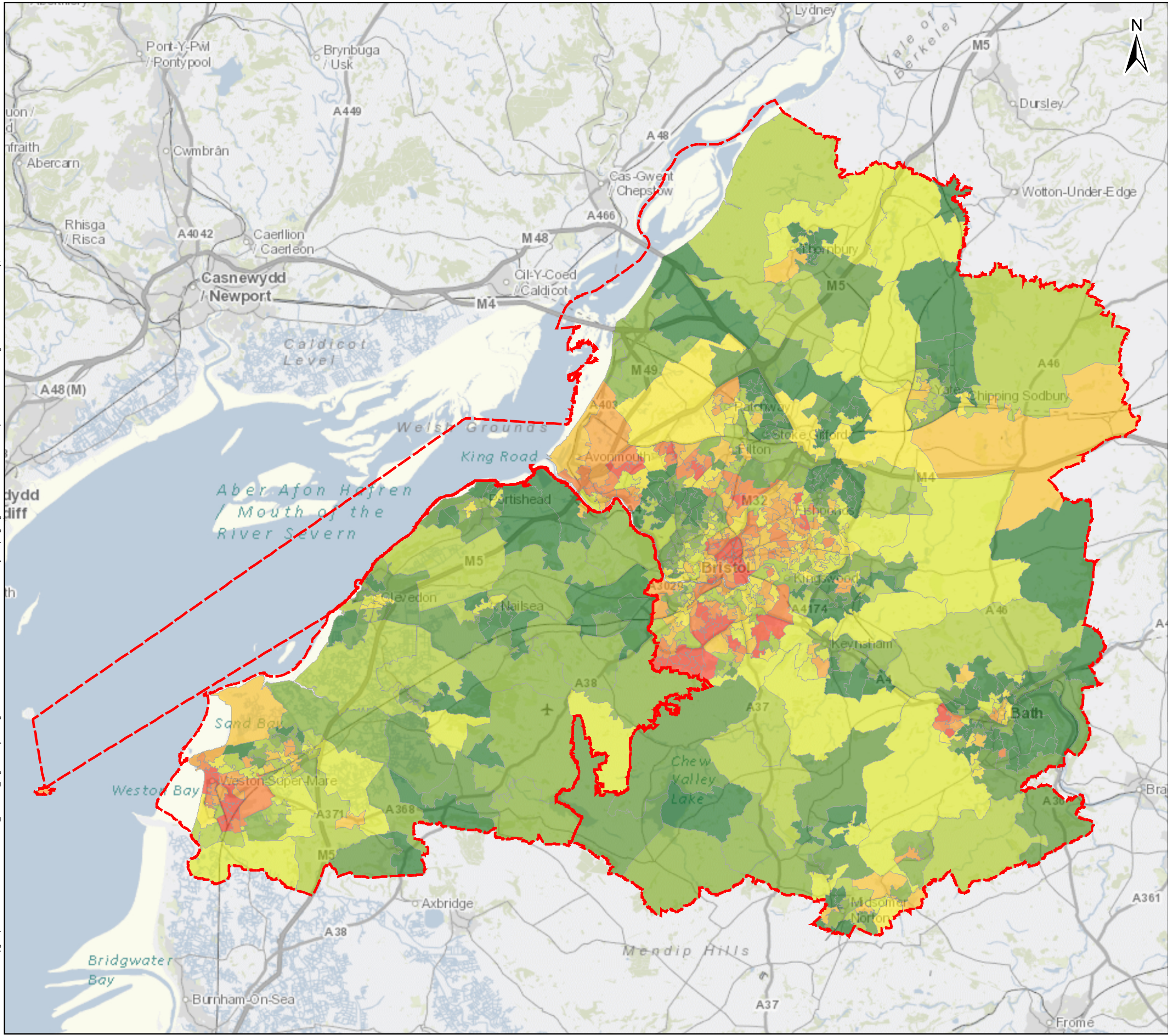
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Figure C-1 - Overview Map

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Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD







Key

Council Boundary

Overall Indices of Deprivation
(where 1 is most deprived 10% of LSOAs)

	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

Project

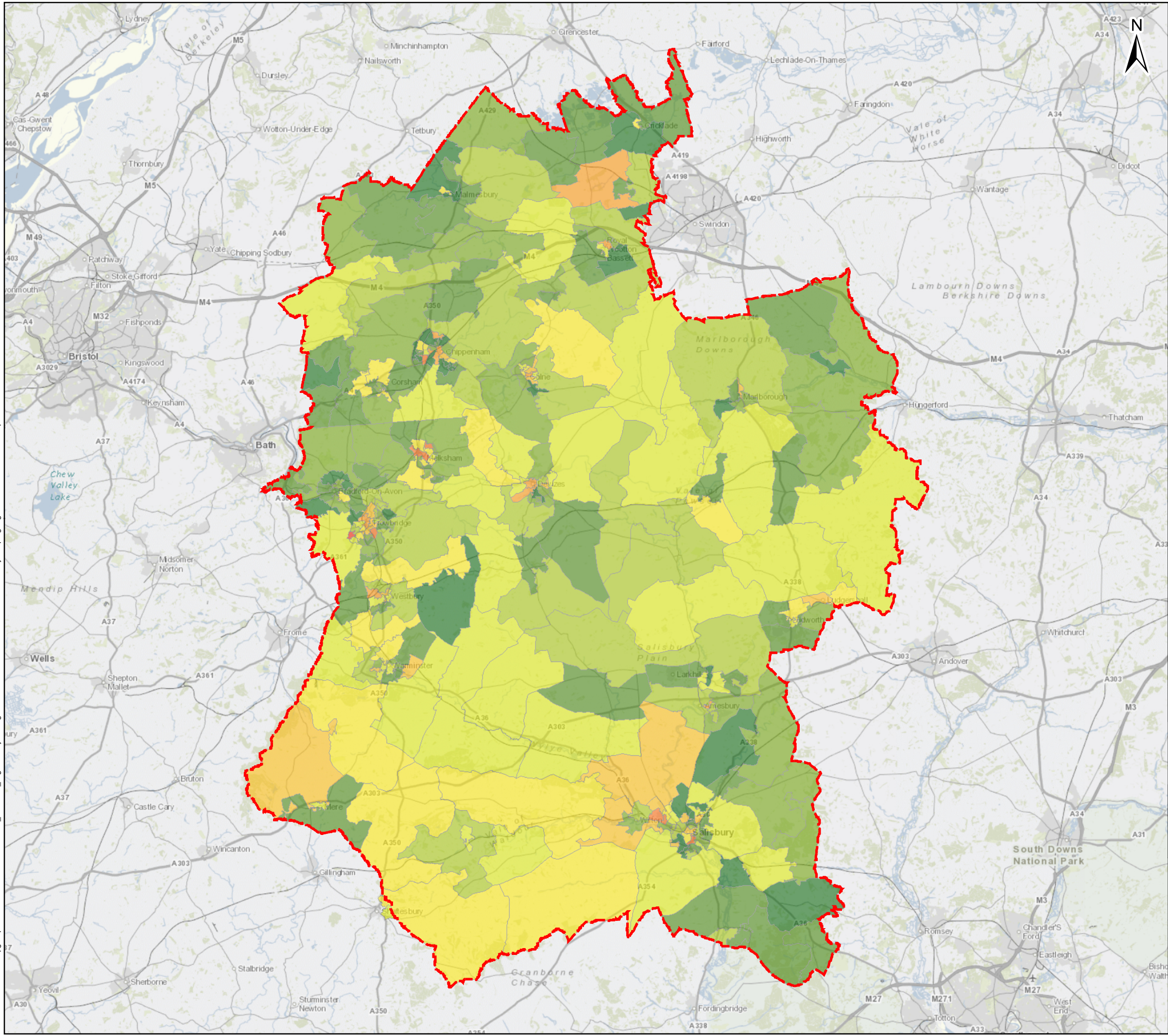
Western Gateway Strategic Investment Plan

Title:

Figure C-4 - West of England Combined Authority IMD Overall Deprivation

Date:	30 September 2024	Scale:	200,000 @ A3
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Authorised:	KD		

Drawing Number:



Key
 Council Boundary
Overall Indices of Deprivation
(where 1 is most deprived 10% of LSOAs)

	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

Scale: 1:3,000,000

0 1.75 3.5 7 10.5 14 17.5 Km

Client:

Western Gateway
Sub-national Transport Body

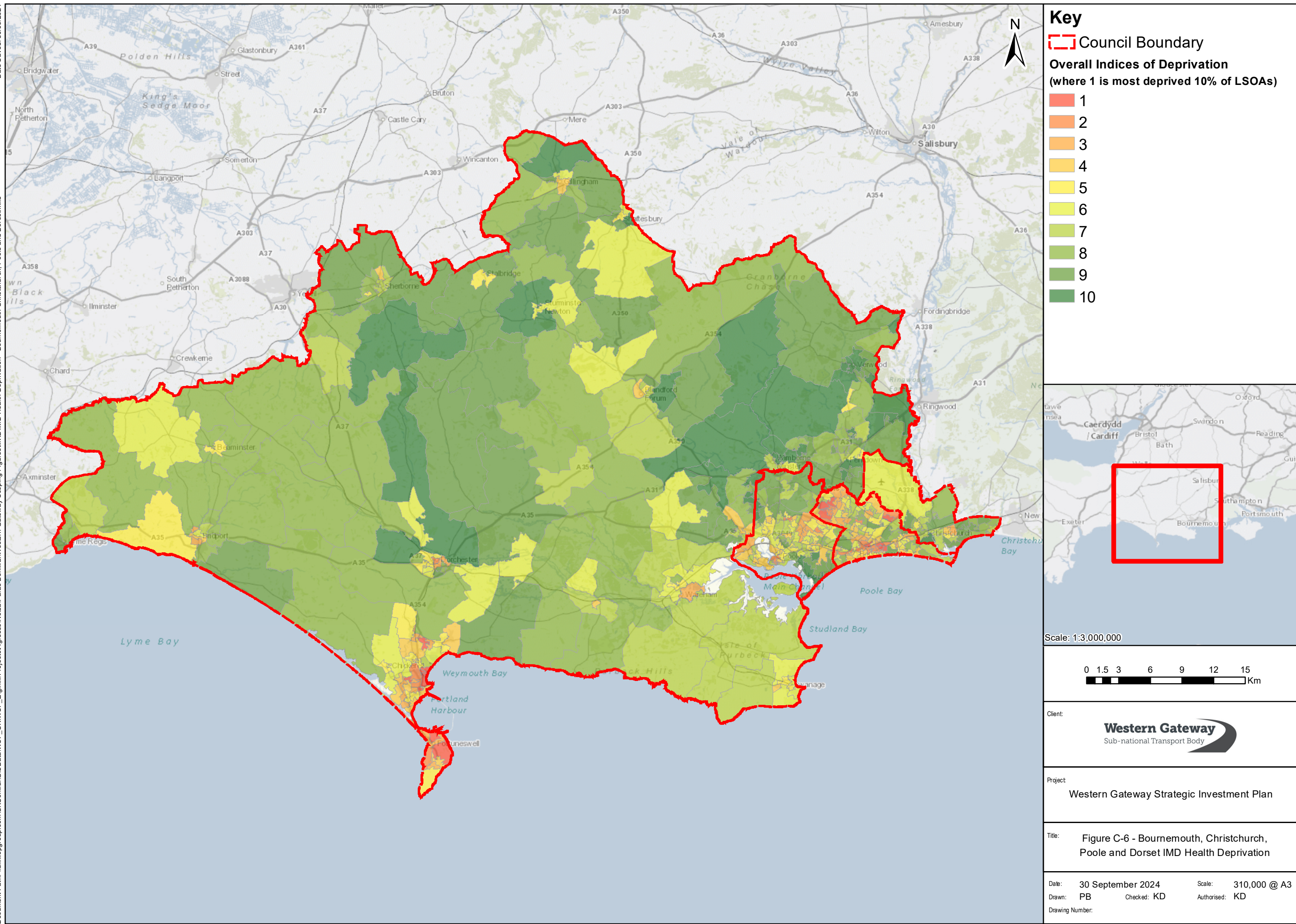
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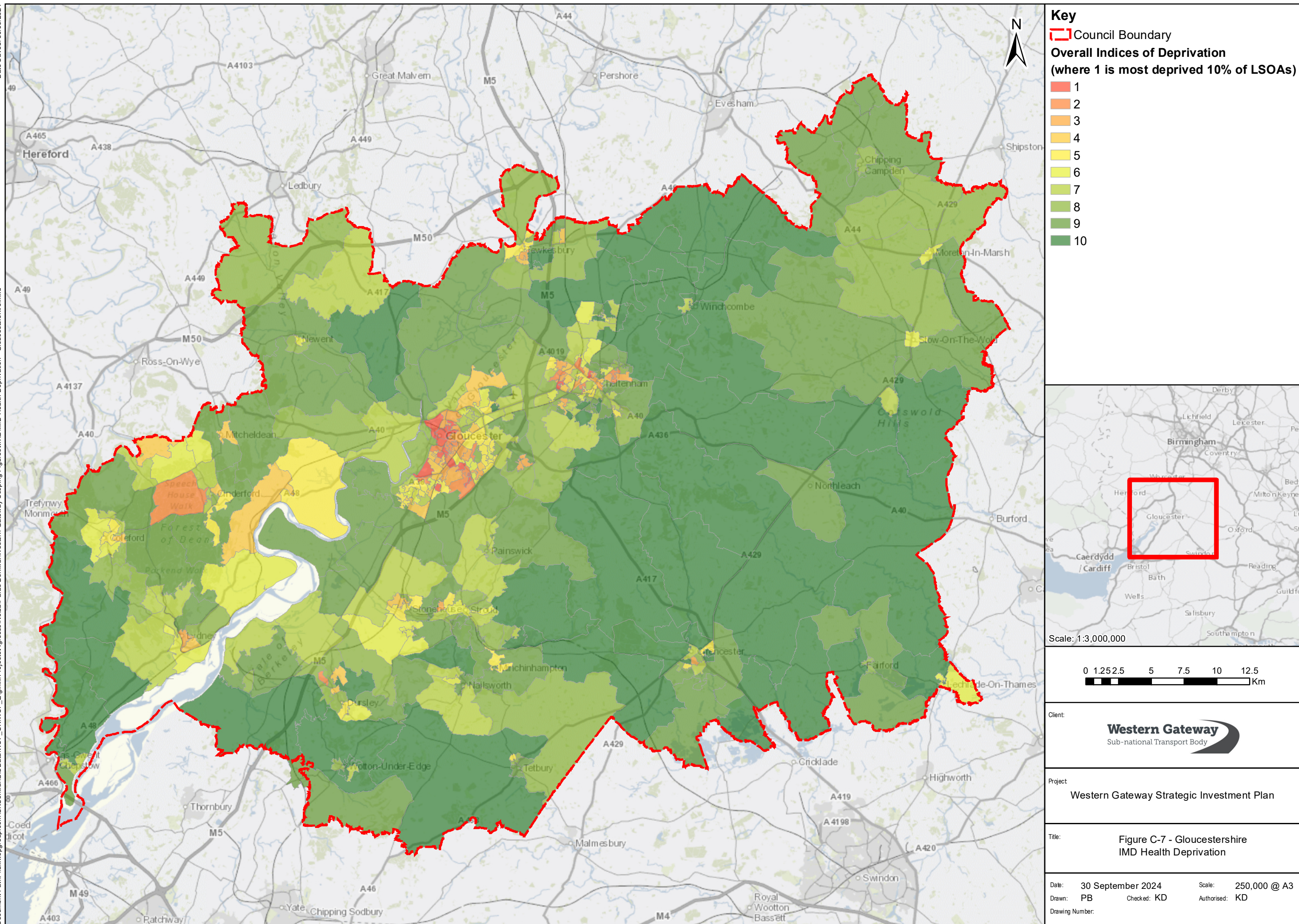
Western Gateway Strategic Investment Plan

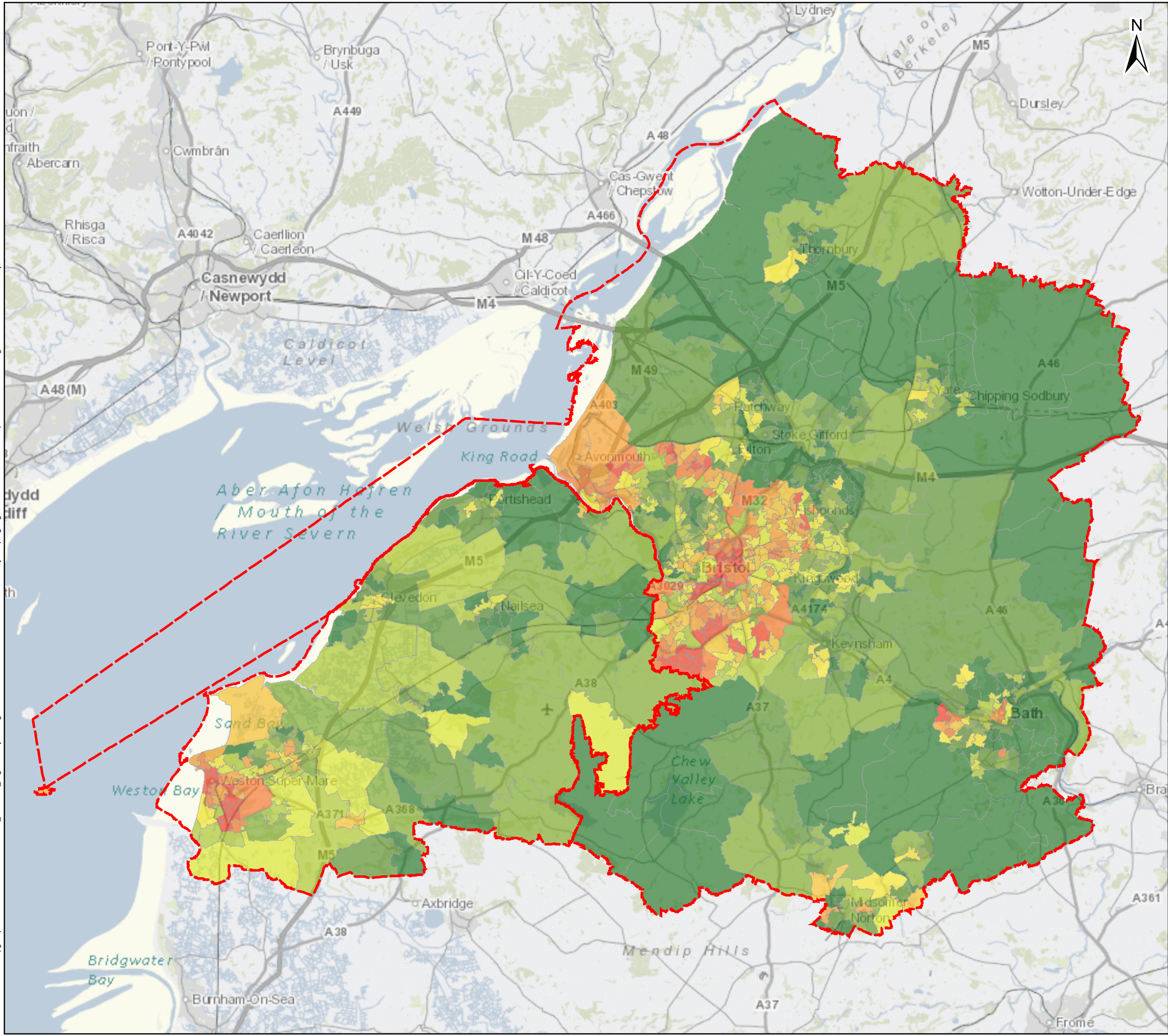
Title:

Figure C-5 - Wiltshire IMD
Overall Deprivation

Date:	30 September 2024	Scale:	330,000 @ A3
Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD







Key

Council Boundary

Overall Indices of Deprivation
(where 1 is most deprived 10% of LSOAs)

	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

Scale: 1:3,000,000

Client:

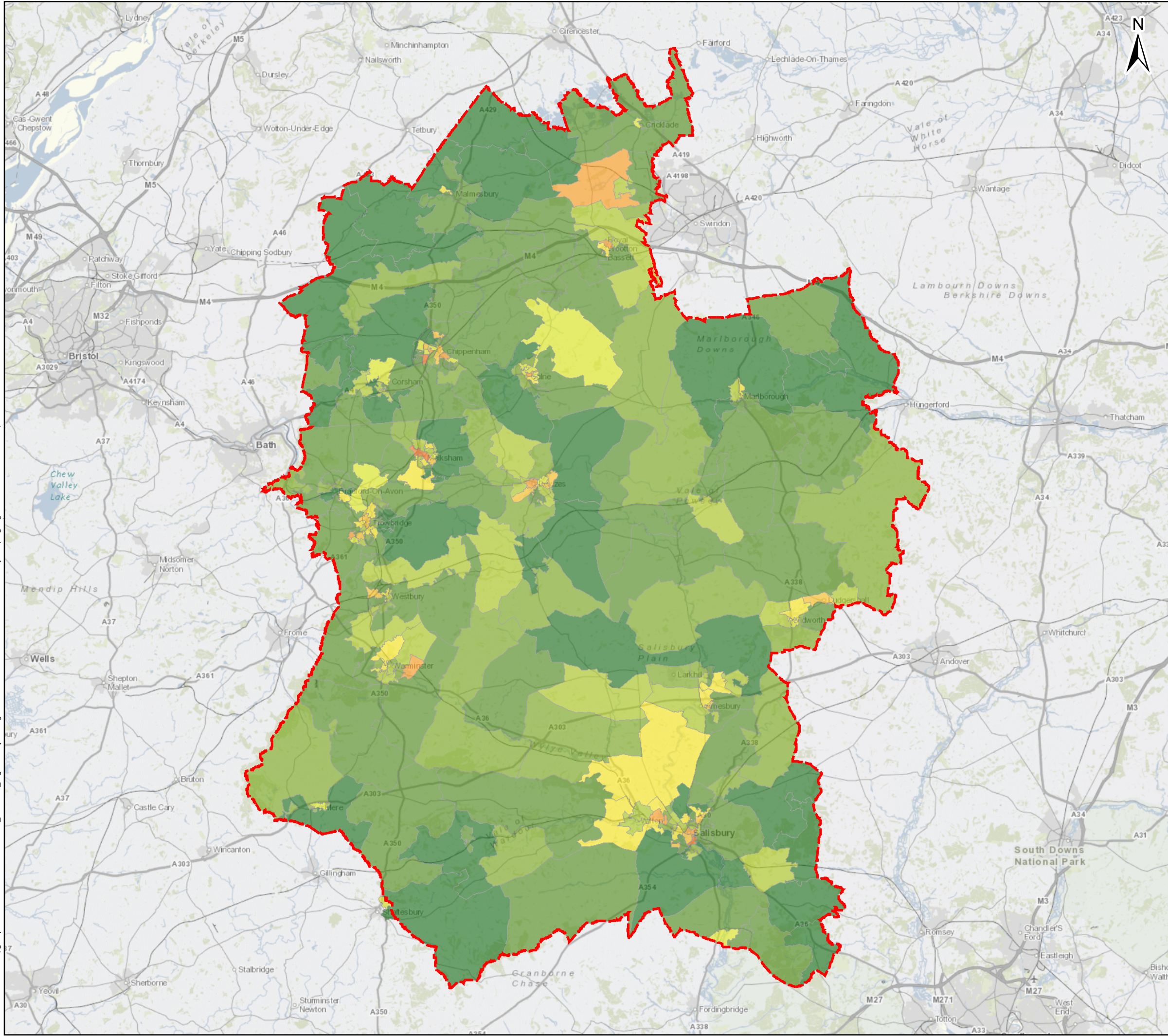
Project

Western Gateway Strategic Investment Plan

Title:

Figure C-8 - West of England Combined Authority & North Somerset IMD Health Deprivation

Date:	30 September 2024	Scale:	200,000 @ A3
Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD



Legend
 Council Boundary
Overall Indices of Deprivation
(where 1 is most deprived 10% of LSOAs)

	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

Scale: 1:3,000,000

0	1.75	3.5	7	10.5	14	17.5
Km						

Client:

Western Gateway
Sub-national Transport Body

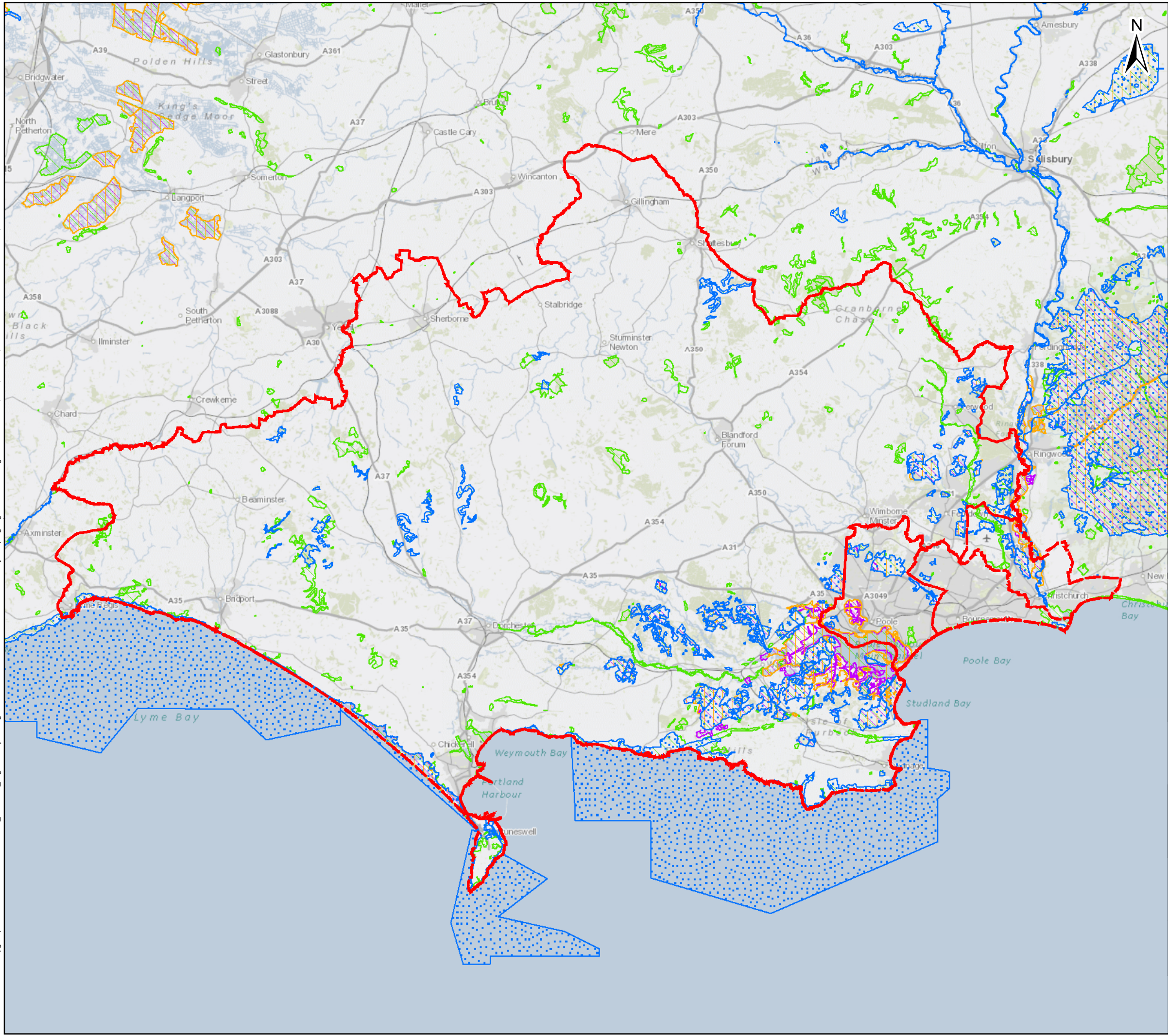
Project:

Western Gateway Strategic Investment Plan

Title:

Figure C-9 - Wiltshire IMD Health Deprivation

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Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD



Key

- Council Boundary
- Special Area of Conservation
- Special Protection Area
- Site of Special Scientific Interest
- Ramsar

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

Project:

Western Gateway Strategic Investment Plan

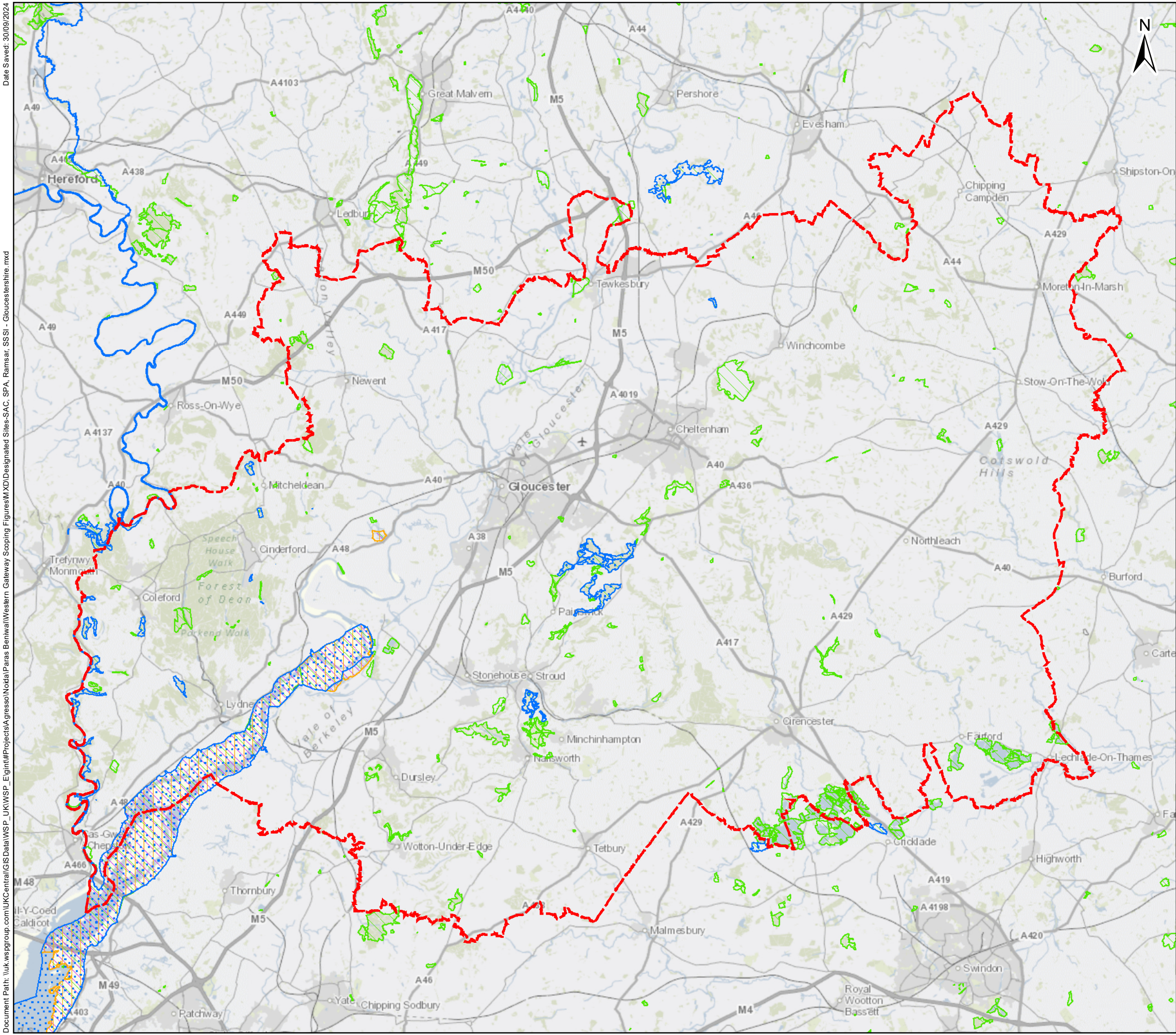
Title:

Figure C-10 - Bournemouth, Christchurch, Poole and Dorset Designated Sites — SAC, SPA, Ramsar, SSSI

Date: 30 September 2024
Drawn: PB
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Date: 30 September 2024
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Authorised: KD

Scale: 310,000 @ A3



Key

Council Boundary

Special Area of Conservation

Special Protection Area

Site of Special Scientific Interest

Ramsar



Scale: 1:3,000,000

0

1.25

2.5

5

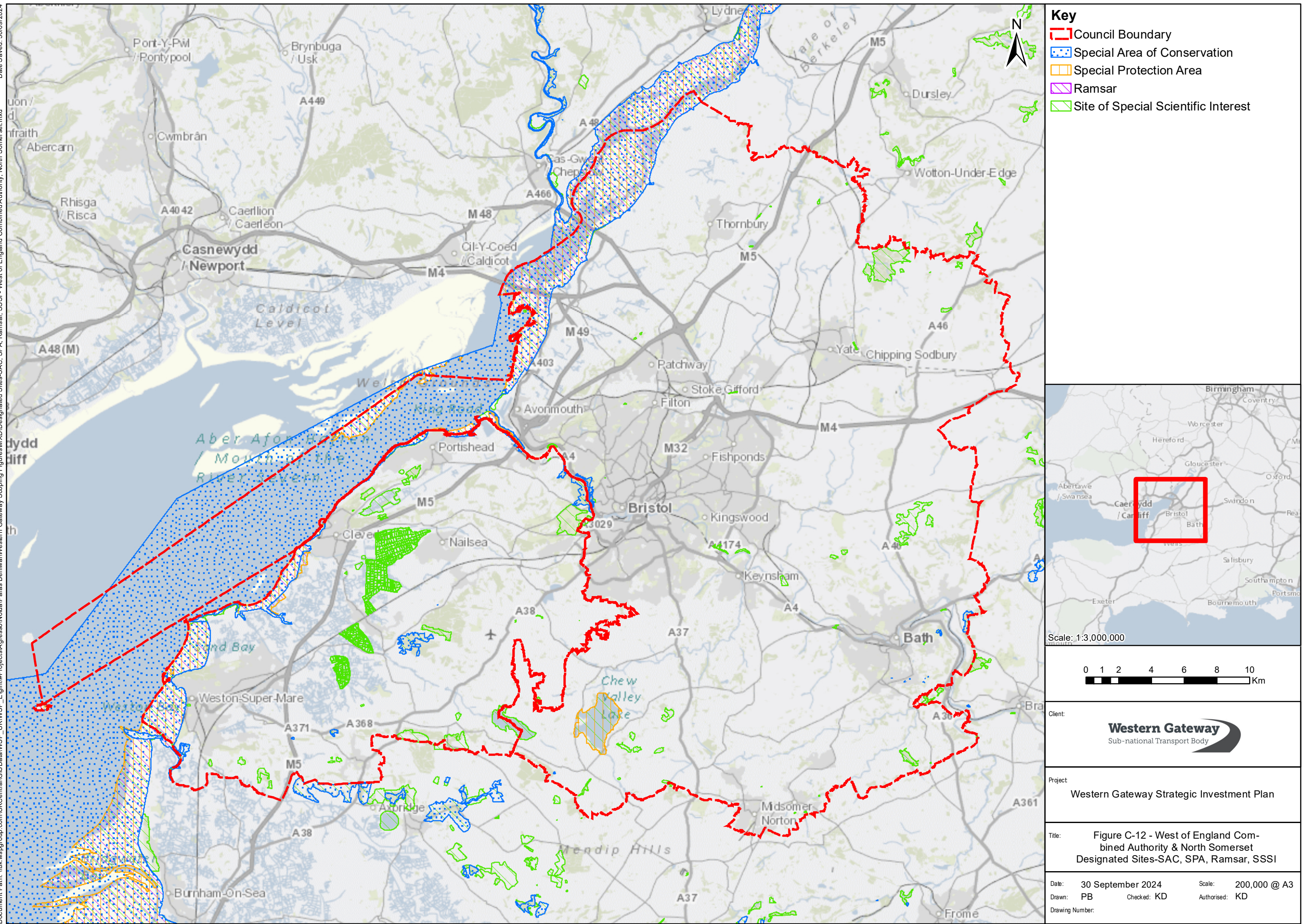
7.5

10

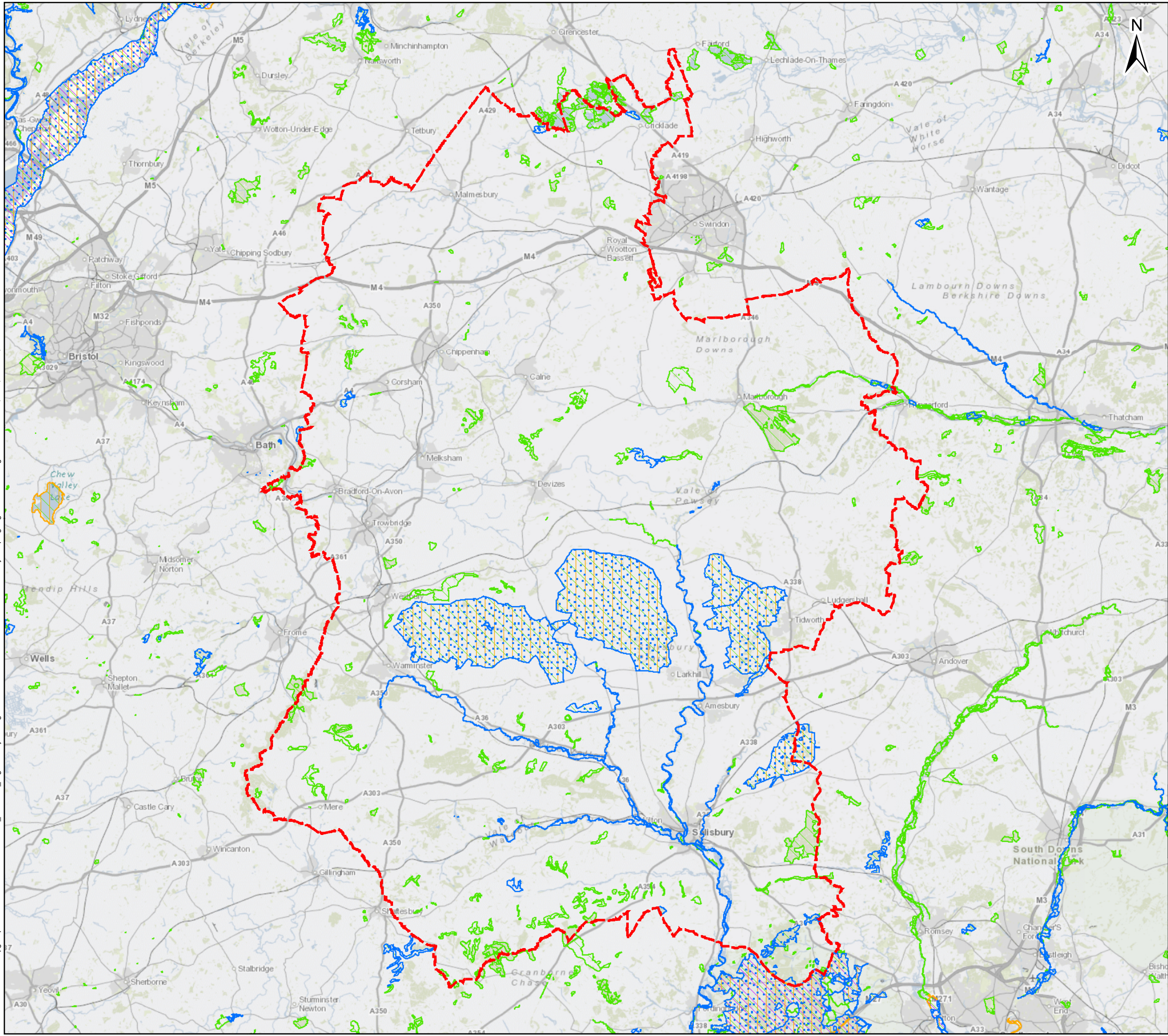
12.5

Km

Client:	<div>Western Gateway</div> <div>Sub-national Transport Body</div>	
Project:	Western Gateway Strategic Investment Plan	
Title:	Figure C-11 - Gloucestershire Designated Sites — SAC, SPA, Ramsar, SSSI	
Date:	30 September 2024	Scale: 256,576 @ A3
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Key

- Council Boundary
- Special Area of Conservation
- Special Protection Area
- Site of Special Scientific Interest
- Ramsar

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

Project:

Western Gateway Strategic Investment Plan

Title:

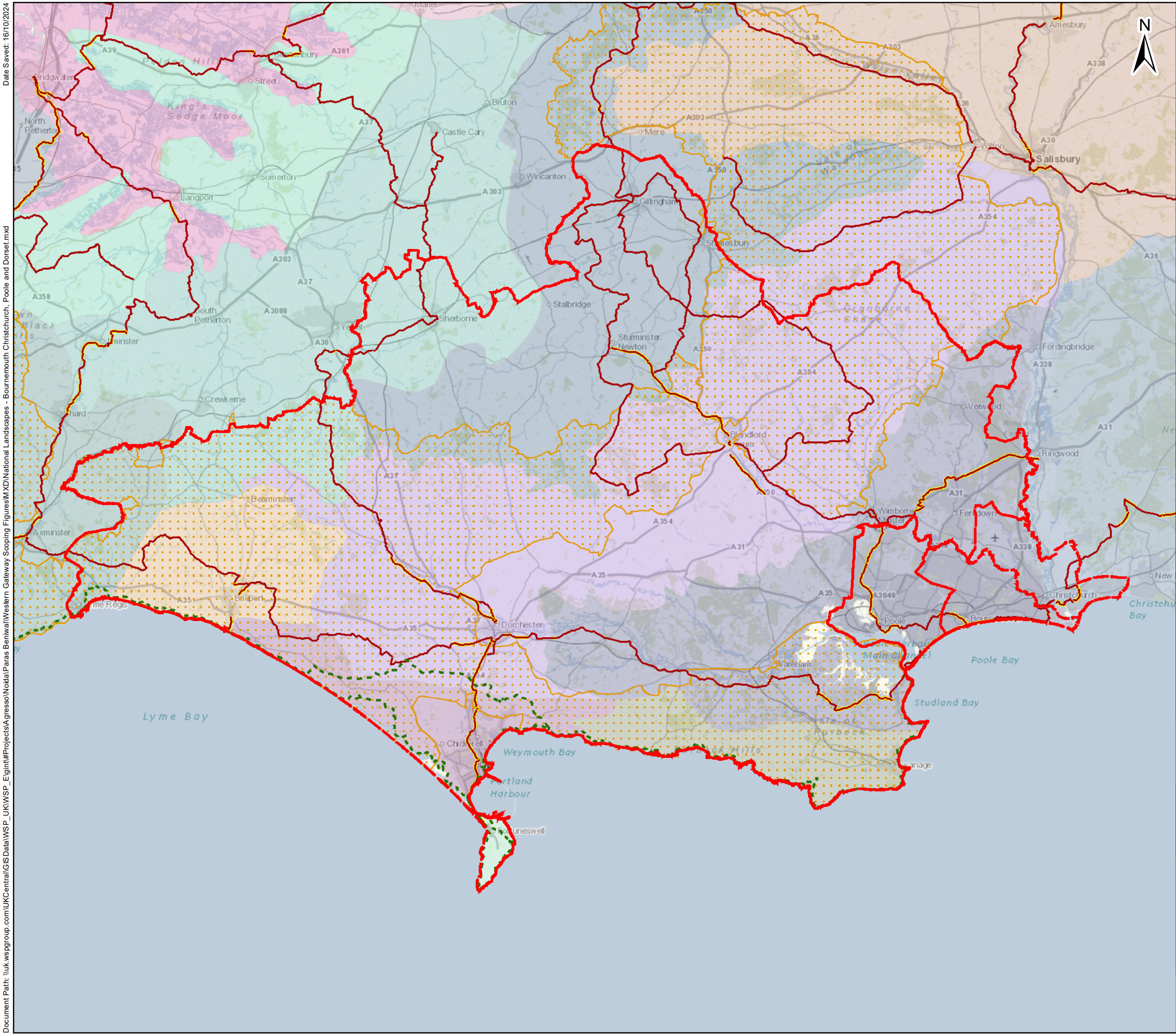
Figure C-13 - Wiltshire
Designated Sites — SAC, SPA, Ramsar, SSSI

Date: 30 September 2024
Drawn: PB
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Date: 30 September 2024
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- Key**
- Council Boundary
 - National Trail
 - National Landscapes
- Sustrans National Route**
- National Route (on road)
 - National Route (off road)
- Landscape Character Area**
- Blackdowns
 - Blackmoor Vale and the Vale of Wardour
 - Dorset Downs and Cranborne Chase
 - Dorset Heaths
 - Isle of Portland
 - Marshwood and Powerstock Vales
 - Mendip Hills
 - Mid Somerset Hills
 - New Forest
 - Salisbury Plain and West Wiltshire Downs
 - Somerset Levels and Moors
 - South Purbeck
 - Vale of Taunton and Quantock Fringes
 - Weymouth Lowlands
 - Yeovil Scarplands



Scale: 1:3,000,000

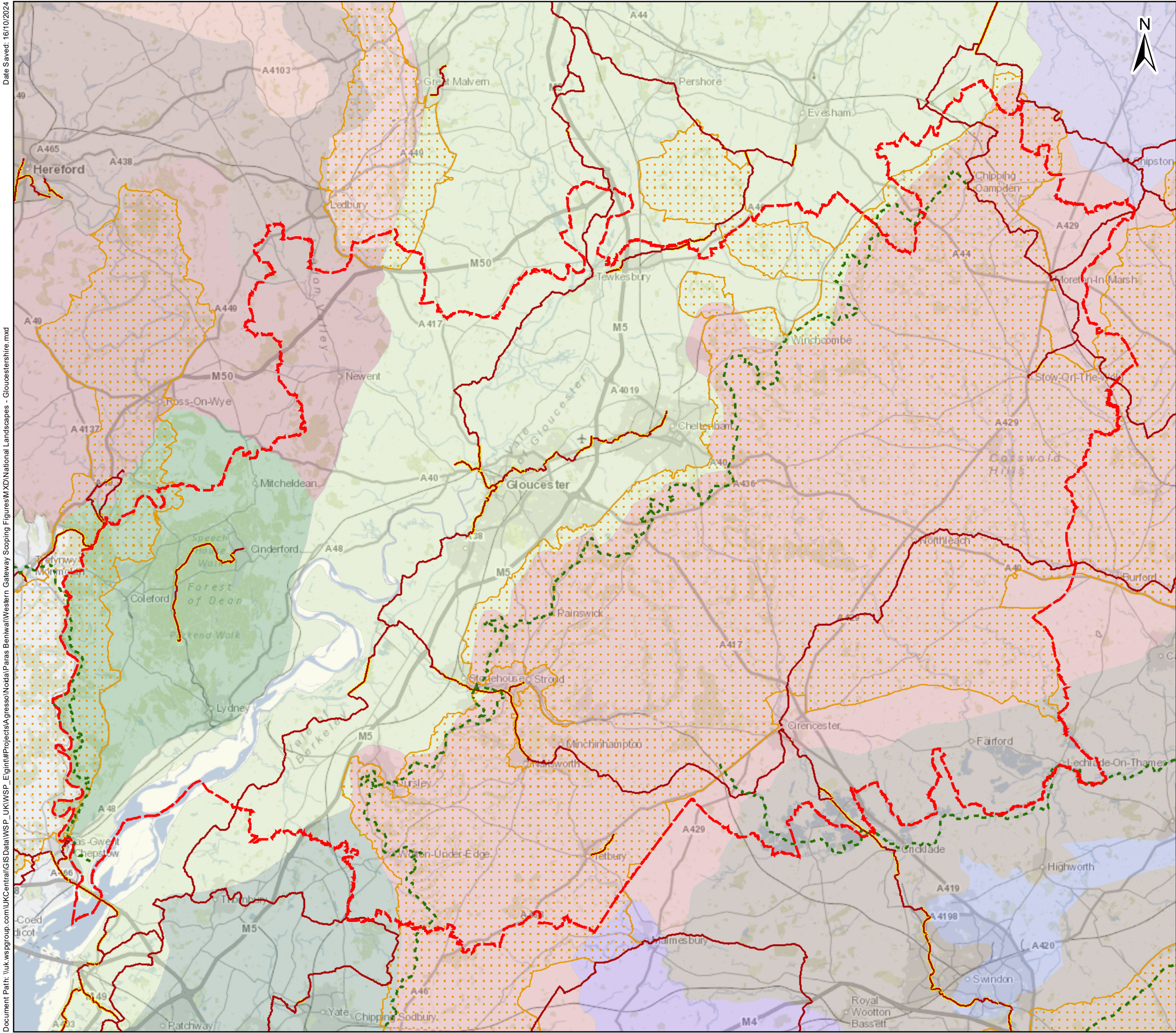
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Client: **Western Gateway**
Sub-national Transport Body

Project: Western Gateway Strategic Investment Plan

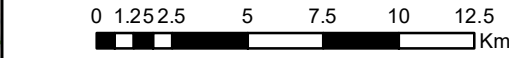
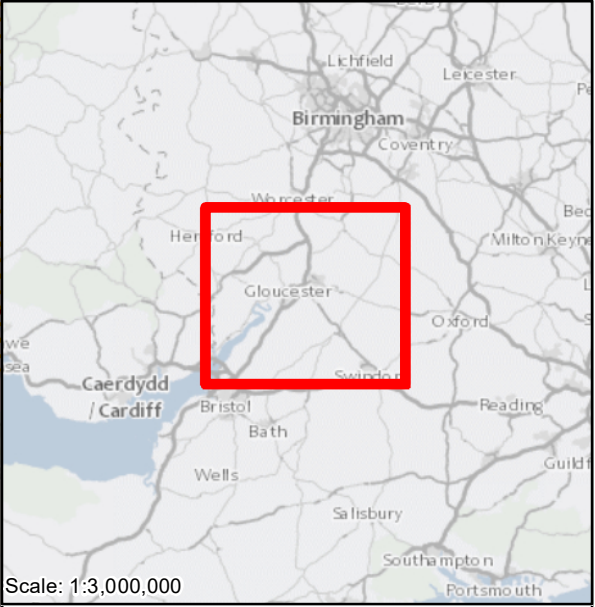
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Drawing Number:		Authorised:	KD

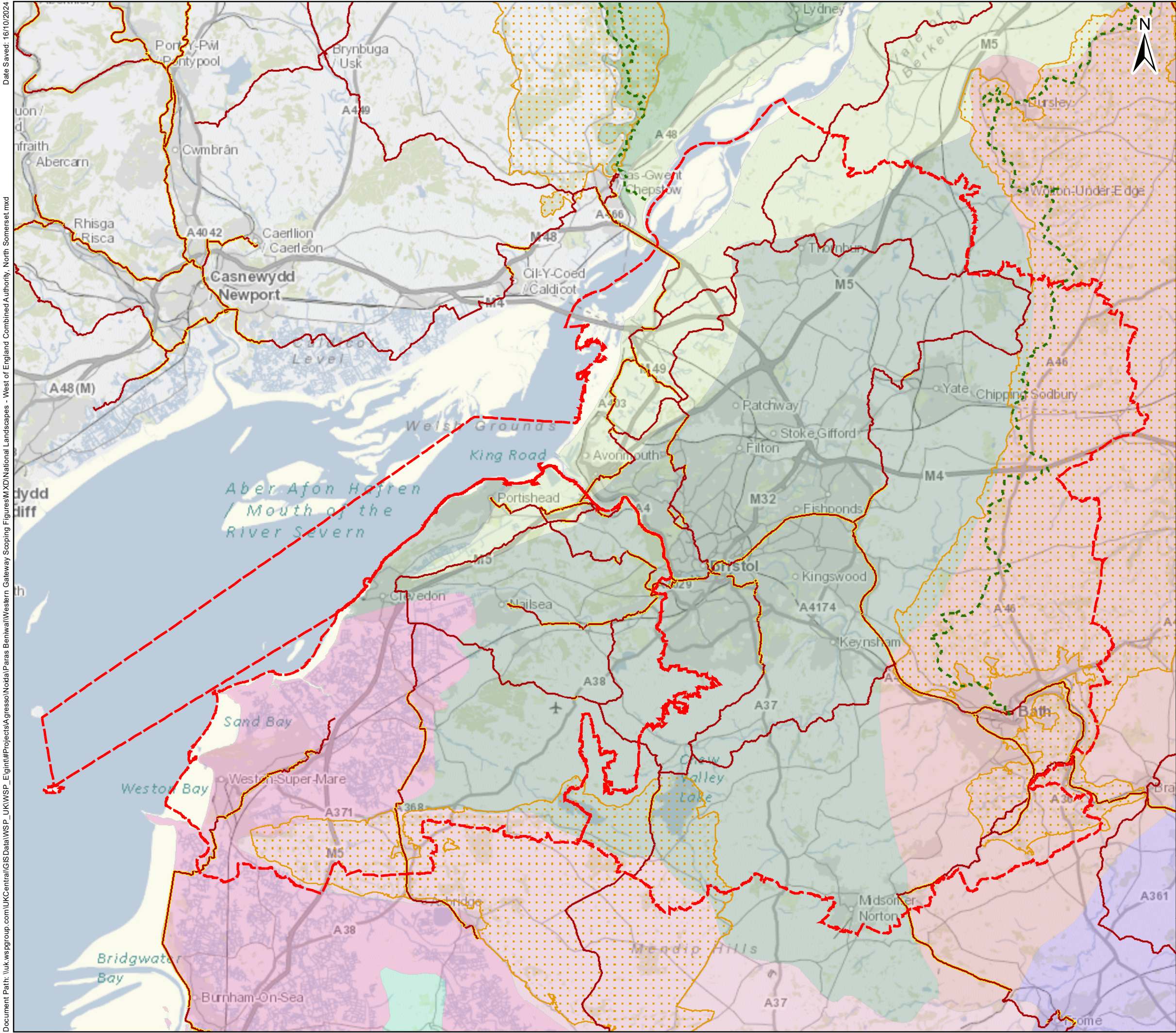


Key

- Council Boundary
- National Trail
- National Landscapes
- Sustrans National Route**
 - National Route (on road)
 - National Route (off road)
- Landscape Character Area**
 - Avon Vale
 - Berkshire and Marlborough Downs
 - Bristol, Avon Valleys and Ridges
 - Cotswolds
 - Dunsmore and Feldon
 - Forest of Dean and Lower Wye
 - Herefordshire Lowlands
 - Herefordshire Plateau
 - Malvern Hills
 - Midvale Ridge
 - Severn and Avon Valleys
 - South Herefordshire and Over Severn
 - Upper Thames Clay Vales



Client:	 Sub-national Transport Body		
Project:	Western Gateway Strategic Investment Plan		
Title:	Figure C-15 - Gloucestershire National Landscapes and Landscape Character Areas		
Date:	16 October 2024	Scale:	250,000 @ A3
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Drawing Number:		Authorised:	KD



Key

- Council Boundary
- National Trail

Sustrans National Route

- National Route (on road)
- National Route (off road)
- National Landscapes

Landscape Character Area

- Avon Vale
- Bristol, Avon Valleys and Ridges
- Cotswolds
- Forest of Dean and Lower Wye
- Mendip Hills
- Mid Somerset Hills
- Severn and Avon Vales
- Somerset Levels and Moors

Scale: 1:3,000,000

Client: **Western Gateway**
Sub-national Transport Body

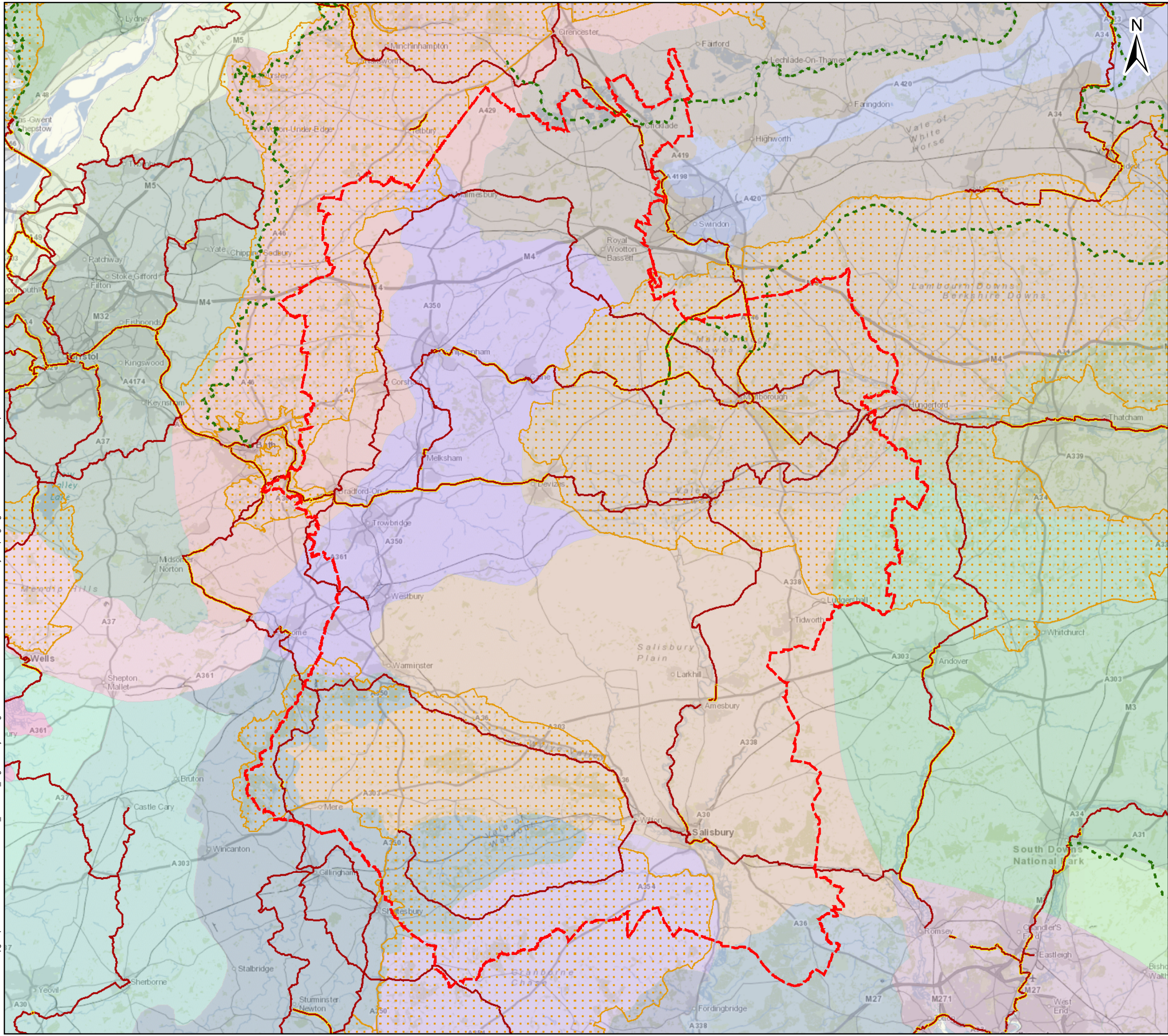
Project: Western Gateway Strategic Investment Plan

Title: Figure C-16 - West of England Combined Authority & North Somerset - National Landscapes and Landscape Character Areas

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Key

- Council Boundary
- National Trail
- National Landscapes

Sustrans National Route

- National Route (on road)
- National Route (off road)

Landscape Character Area

- Avon Vale
- Berkshire and Marlborough Downs
- Blackmoor Vale and the Vale of Wardour
- Bristol, Avon Valleys and Ridges
- Cotswolds
- Dorset Downs and Cranborne Chase
- Dorset Heaths
- Forest of Dean and Lower Wye
- Hampshire Downs
- Mendip Hills
- Mid Somerset Hills
- Midvale Ridge
- New Forest
- Salisbury Plain and West Wiltshire Downs
- Severn and Avon Vales
- Somerset Levels and Moors
- South Downs
- South Hampshire Lowlands
- Thames Basin Heaths
- Upper Thames Clay Vales
- Yeovil Scarplands

Scale: 1:3,000,000

0 1.75 3.5 7 10.5 14 17.5 Km

Client:

Western Gateway
Sub-national Transport Body

Project:

Western Gateway Strategic Investment Plan

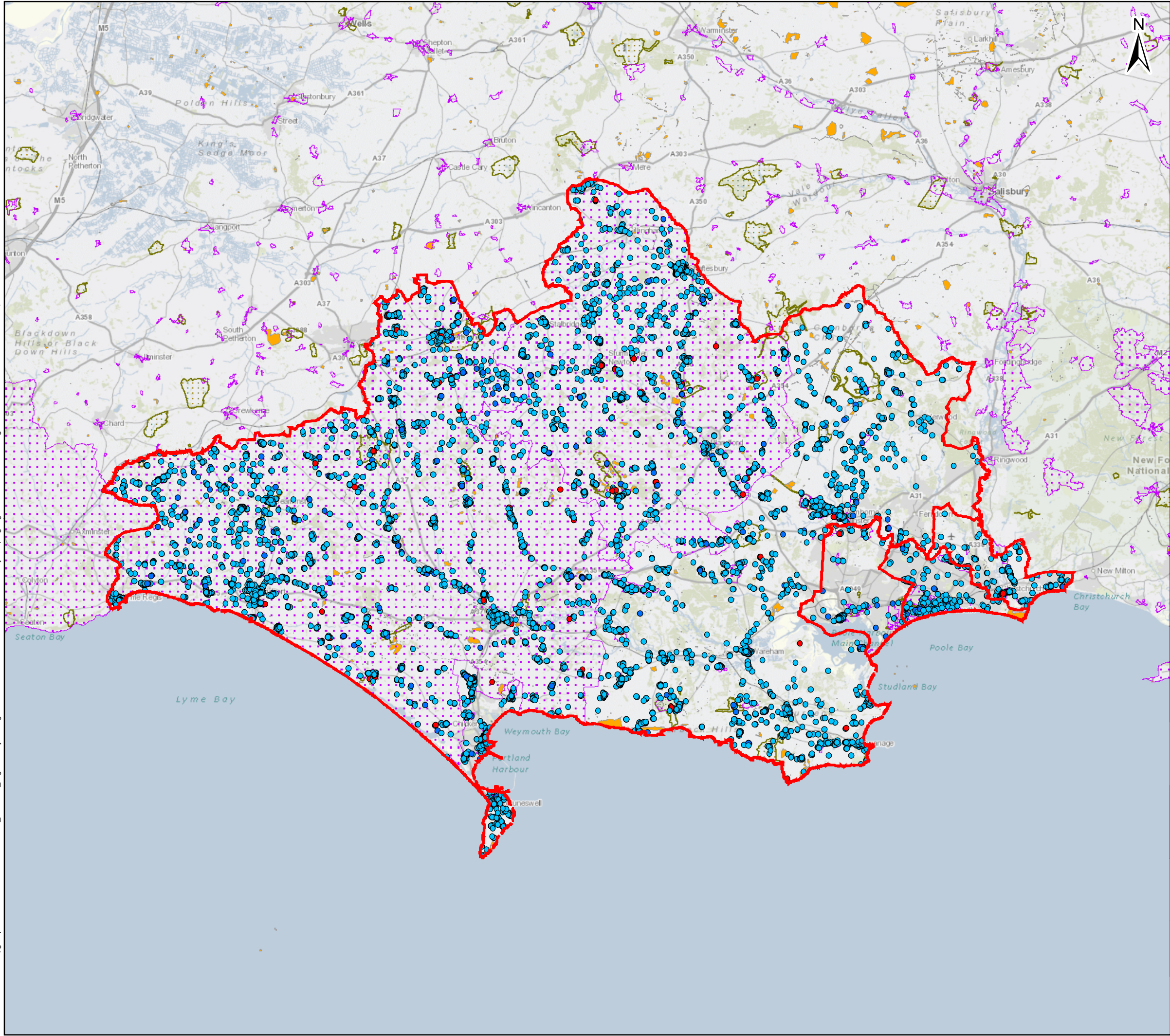
Title:

Figure C-17 - Wiltshire
National Landscapes and
Landscape Character Areas

Date: 16 October 2024
Drawn: PB
Drawing Number:

Scale: 330,000 @ A3
Checked: KD
Authorised: KD

Document Path: \\uk.wspgroup.com\UKCentral\GISData\WSP_UK\WSP_Elgint\Projects\Agresso\Nodal\Paras Beniwal\Western Gateway Scoping Figures\W_XD\Historic Designations - Bournemouth Christchurch, Poole and Dorset.mxd Date Saved: 30/09/2024



Key

Council Boundary

Grade I Listed Building

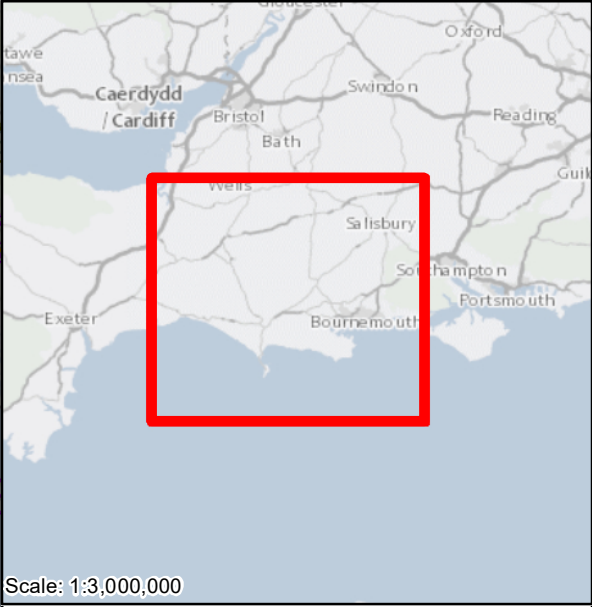
Grade II* Listed Building

Grade II Listed Building

Conservation Areas

Scheduled Monument

Registered Parks and Gardens



Scale: 1:3,000,000

0 1.75 3.5 7 10.5 14 17.5

Km

Client:

Western Gateway

Sub-national Transport Body

Project

Western Gateway Strategic Investment Plan

Title:

Figure C-18 - Bournemouth, Christchurch, Poole and Dorset National Landscapes

Date: 30 September 2024

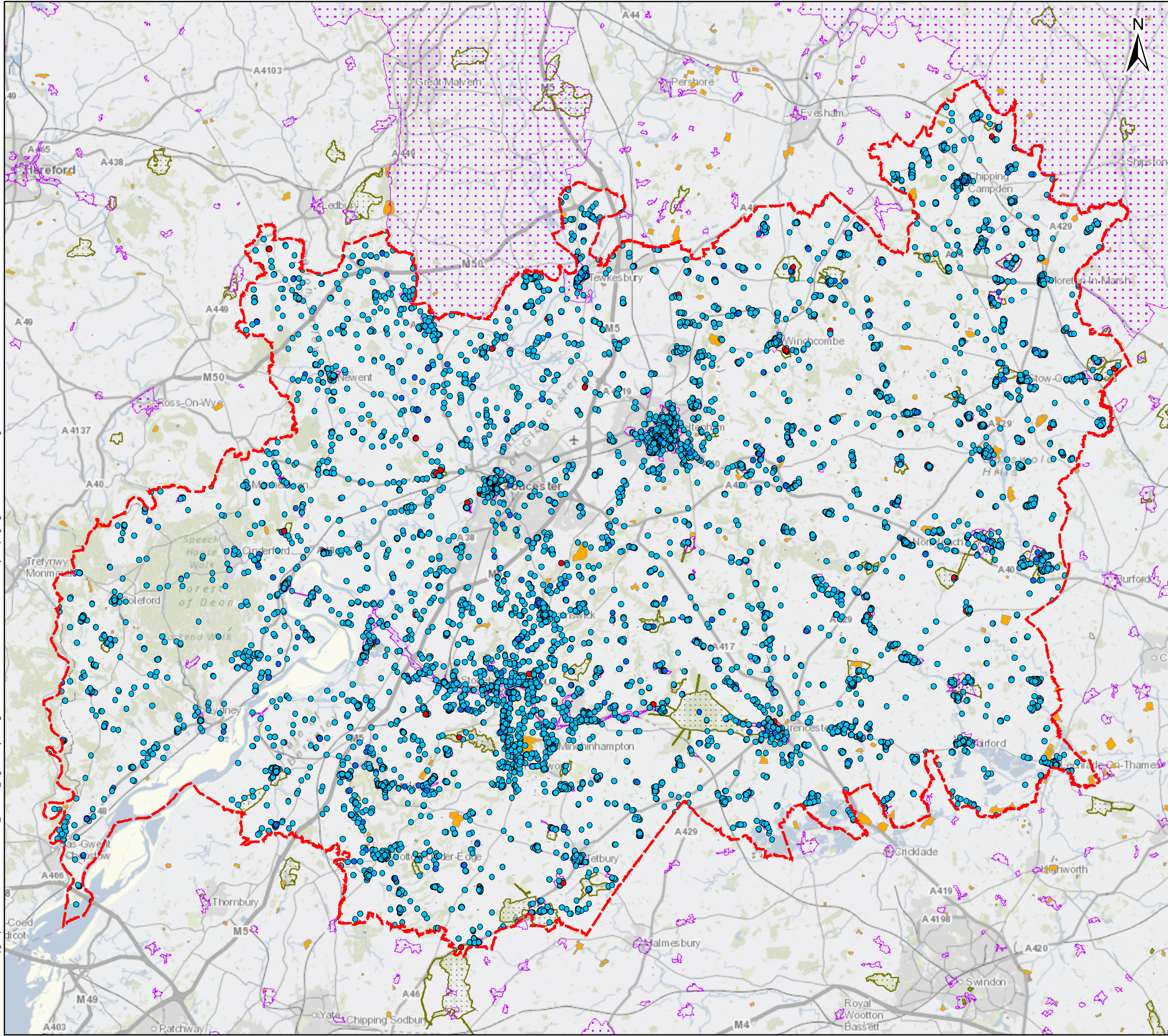
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Drawn: PB

Checked: KD

Authorised: KD

Drawing Number:



Key

- Council Boundary
- Grade I Listed Building
- Grade II* Listed Building
- Grade II Listed Building
- Conservation Areas
- Scheduled Monument
- Registered Parks and Gardens

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

Project:

Western Gateway Strategic Investment Plan

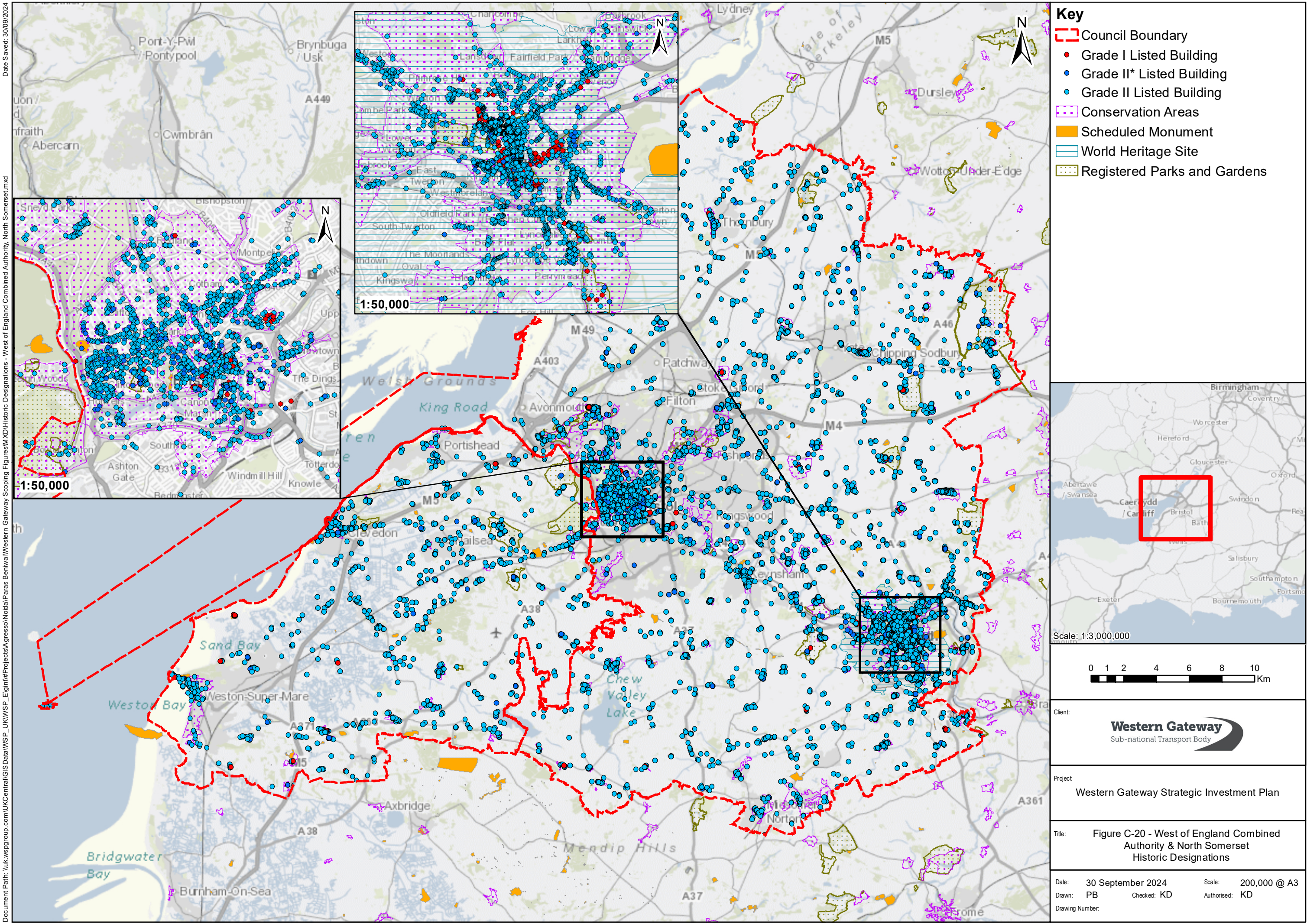
Title:

Figure C-19 -
Gloucestershire Historic
Designations

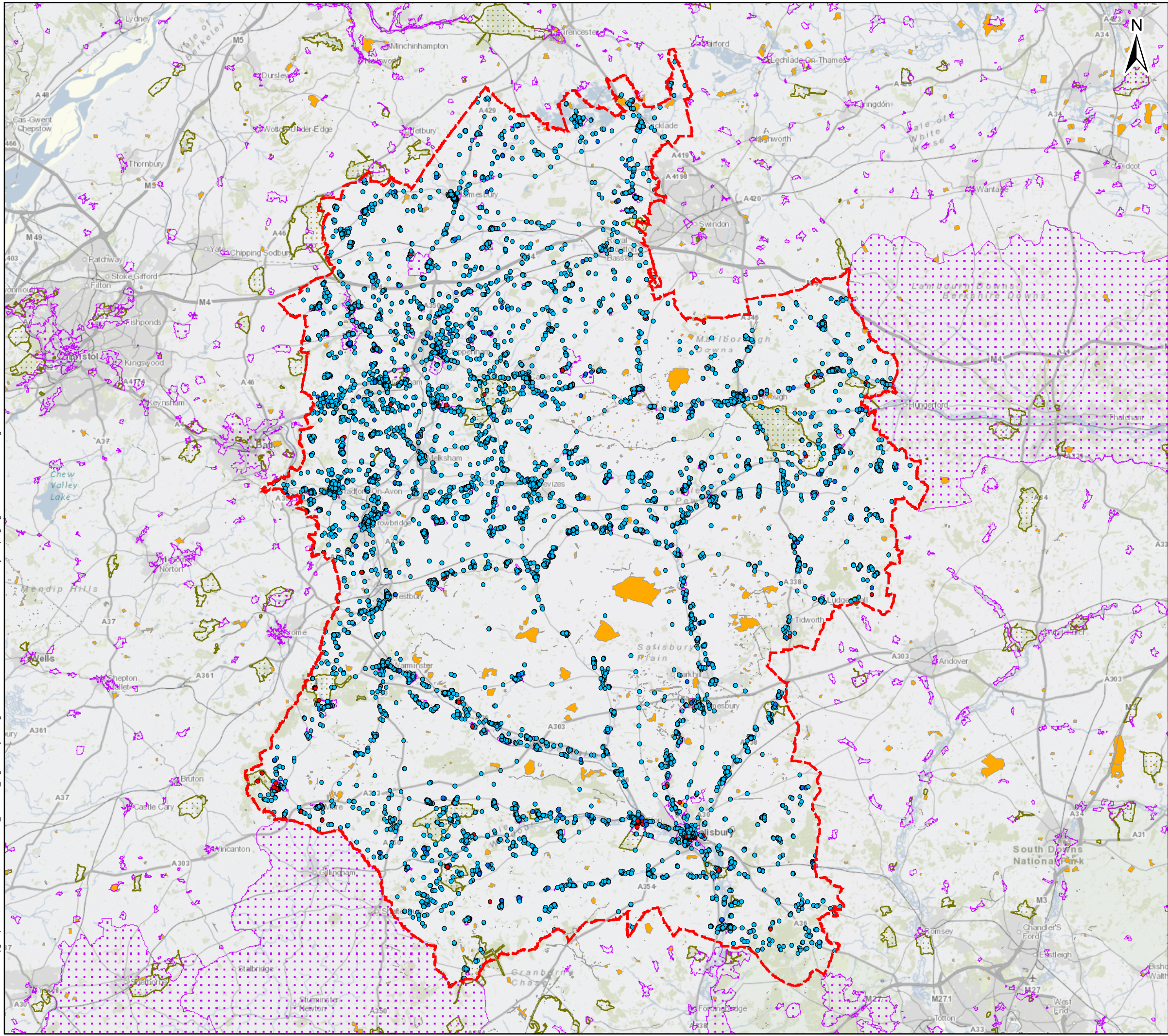
Date: 30 September 2024
Drawn: PB

Scale: 3,000,000 @ A3
Checked: KD
Authorised: KD

Drawing Number:



Date Saved: 30/09/2024
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Key

- Council Boundary
- Grade I Listed Building
- Grade II* Listed Building
- Grade II Listed Building
- Conservation Areas
- Scheduled Monument
- Registered Parks and Gardens

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

Project:

Western Gateway Strategic Investment Plan

Title:

Figure C-21 - Wiltshire
Historic Designations

Date: 30 September 2024

Scale: 330,000 @ A3

Drawn: PB

Checked: KD

Authorised: KD

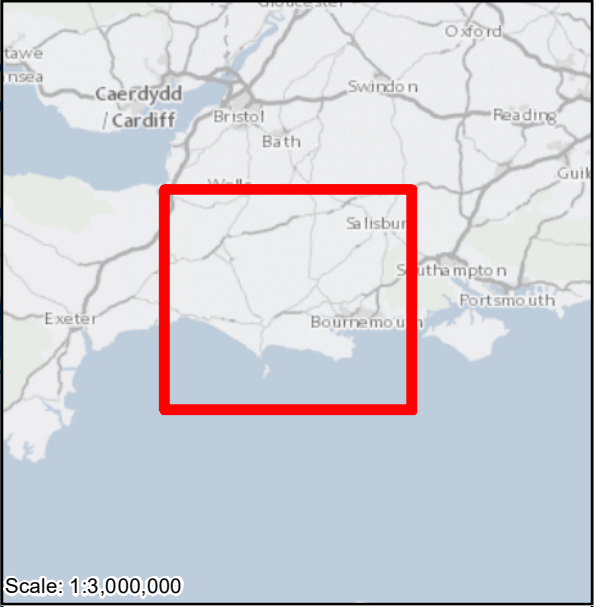
Drawing Number:

Document Path: \\uk.wspgroup.com\UKCentral\GIS\Data\WSP_UK\WSP_E\gint\#Projects\Agresso\Noda\Paras Beniwal\Western Gateway Scoping Figures\WXD\Flood Map - Bournemouth Christchurch, Poole and Dorset.mxd Date Saved: 30/09/2024

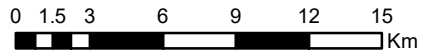


Key

- Council Boundary
- Main Rivers
- Flood Zone 2
- Flood Zone 3



Scale: 1:3,000,000



Client:



Project

Western Gateway Strategic Investment Plan

Title:

Figure C-22 - Bournemouth, Christchurch, Poole and Dorset Flood Map

Date: 30 September 2024

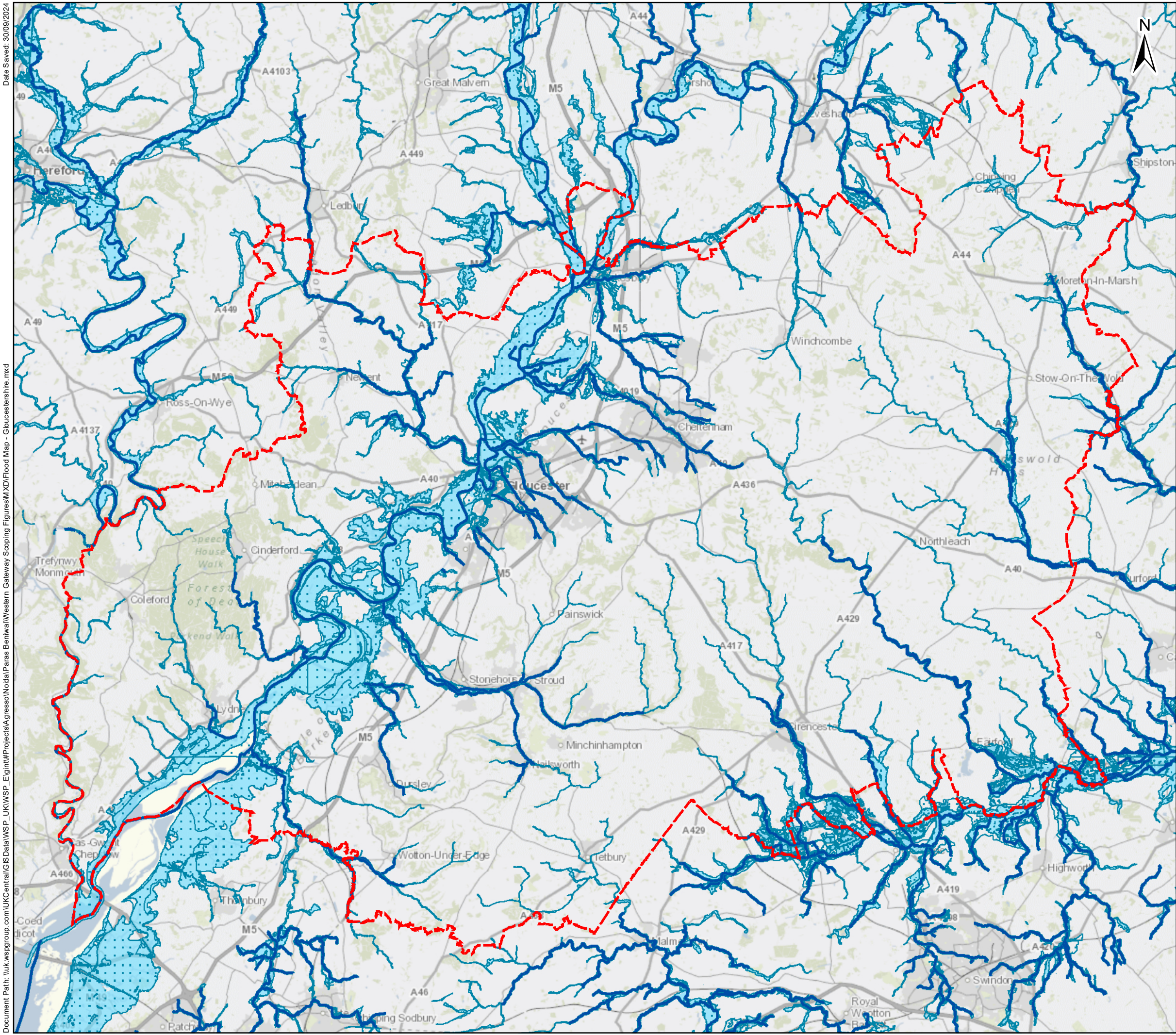
Scale: 310,000 @ A3

Drawn: PB

Checked: KD

Authorised: KD

Drawing Number:



Key

- Council Boundary
- Main Rivers
- Flood Zone 2
- Flood Zone 3

Scale: 1:3,000,000

0 1.25 2.5 5 7.5 10 12.5 Km

Client:

Western Gateway
Sub-national Transport Body

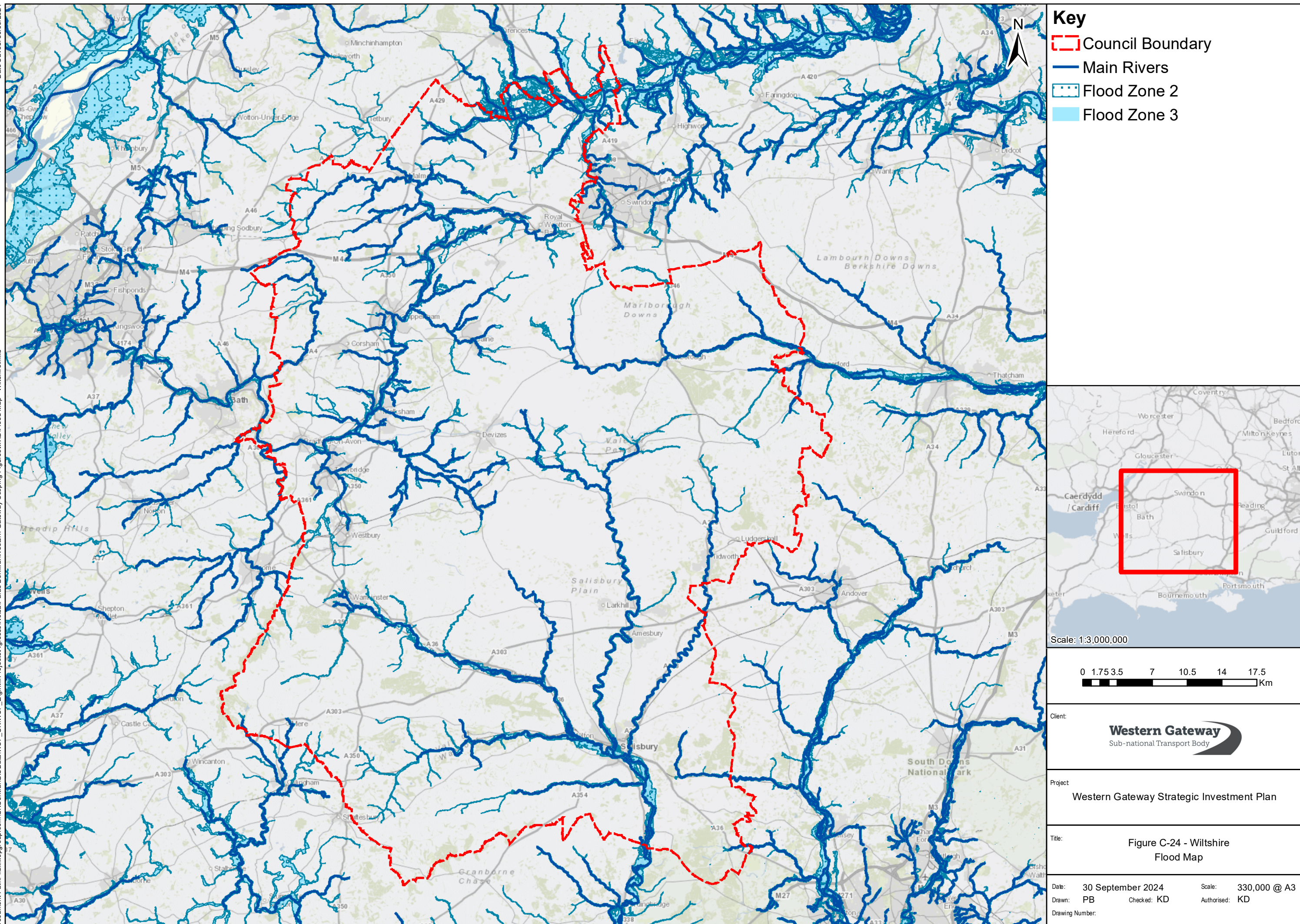
Project

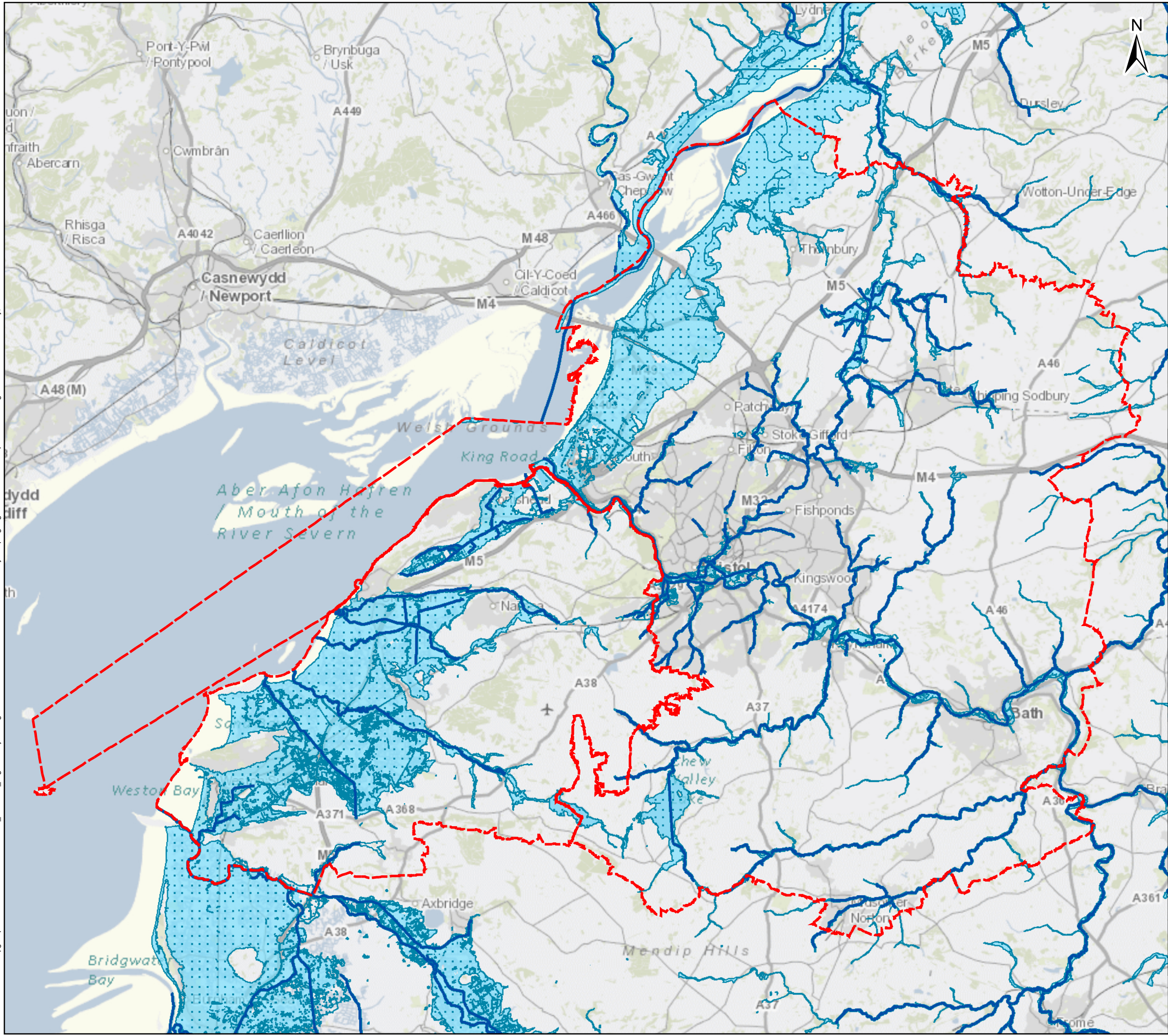
Western Gateway Strategic Investment Plan

Title:

Figure C-23 - Gloucestershire
Flood Map

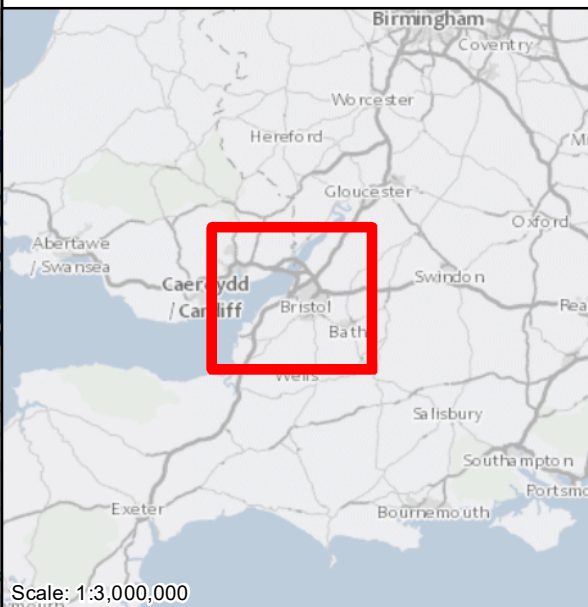
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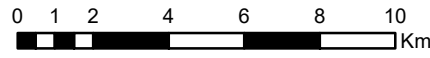


Key

- Council Boundary
- Main Rivers
- Flood Zone 2
- Flood Zone 3



Scale: 1:3,000,000



Client:

Western Gateway
Sub-national Transport Body

Project:

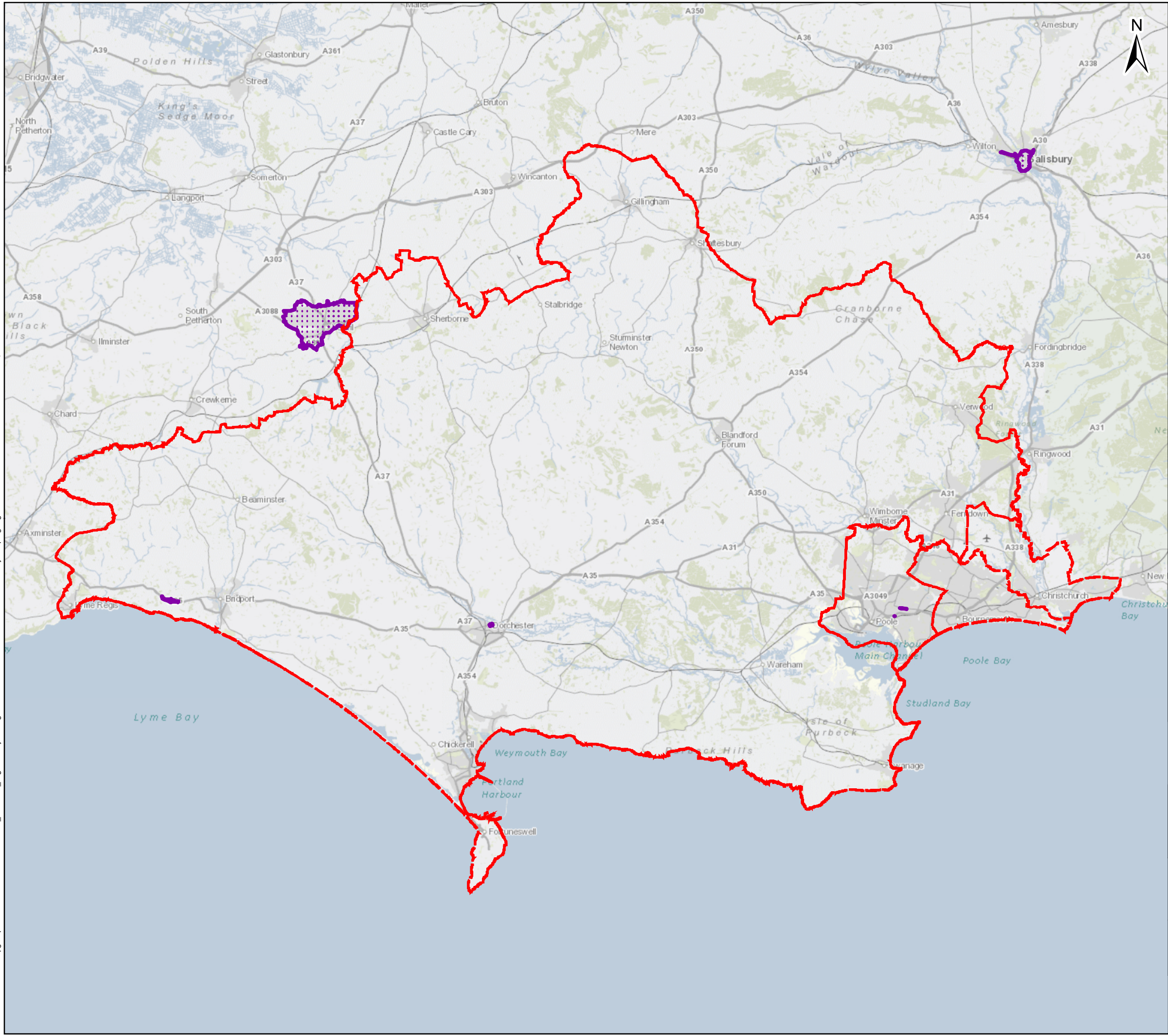
Western Gateway Strategic Investment Plan

Title:



Figure C-25 - West of England Combined Authority & North Somerset Floodmap

Date:	30 September 2024	Scale:	200,000 @ A3
Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD

Date Saved: 30/09/2024
Document Path: \\uk.wspgroup.com\UKCentral\GISData\WSP_UK\WSP_E\gint\#Projects\Agresso\Noda\Paras Beniwall\Western Gateway Scoping Figures\W_XD\AQMA - Bournemouth Christchurch, Poole and Dorset.mxd



Key

-  Council Boundary
-  Air Quality Management Area



Scale: 1:3,000,000

0 1.5 3 6 9 12 15 Km

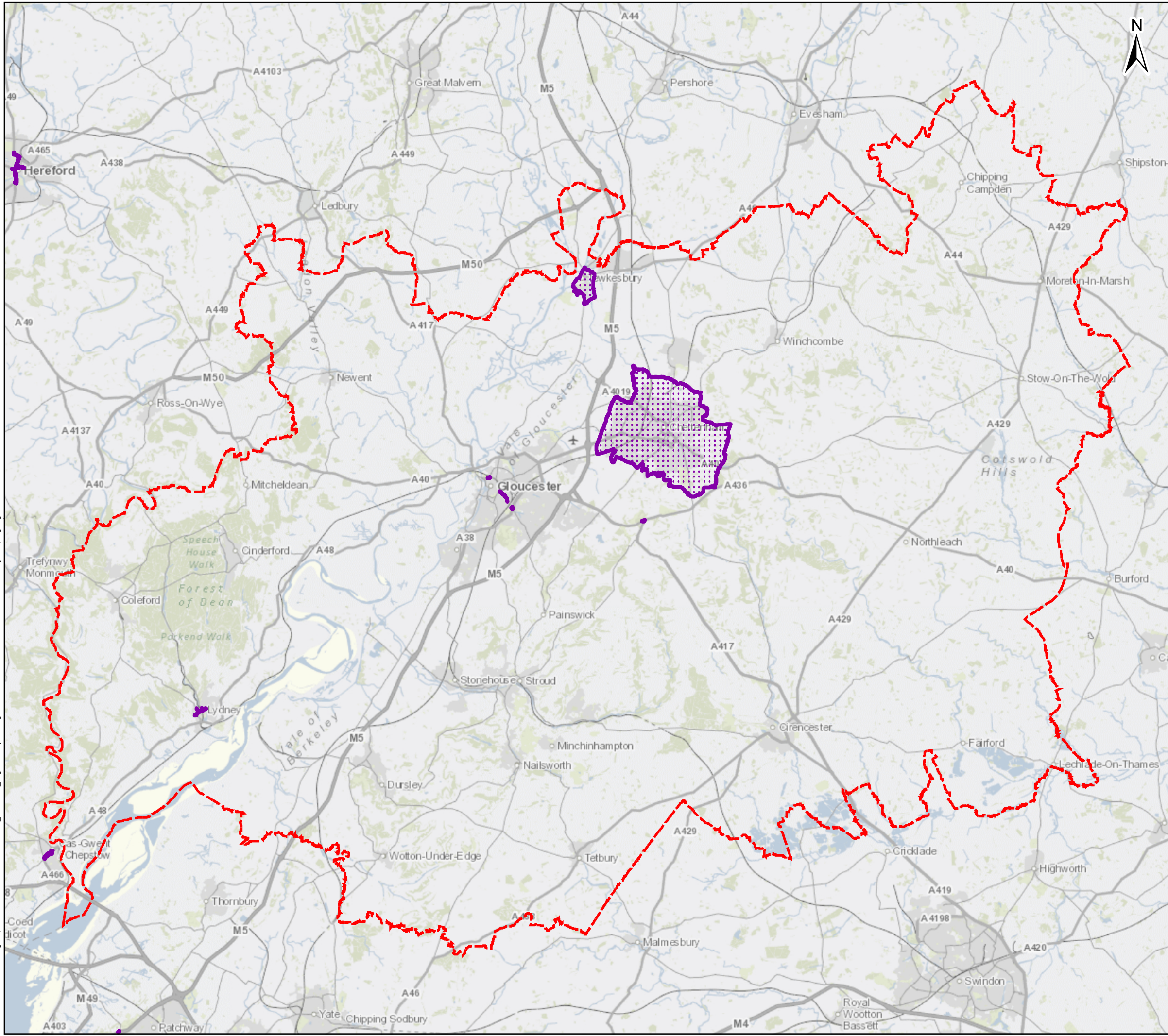
Client: **Western Gateway**
Sub-national Transport Body


Project: Western Gateway Strategic Investment Plan

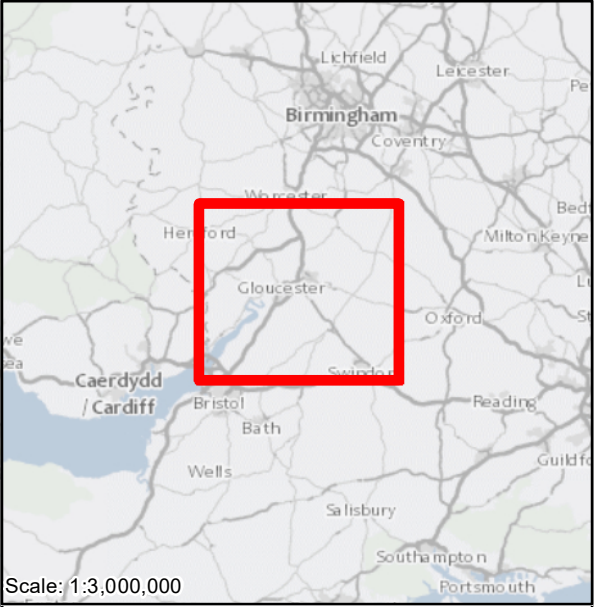
Title: Figure C-26 - Bournemouth, Christchurch, Poole and Dorset AQMA

Date: 30 September 2024	Scale: 310,000 @ A3
Drawn: PB	Checked: KD
Authorised: KD	
Drawing Number:	

Document Path: \\uk.wspgroup.com\UKCentral\GISData\WSP_UK\WSP_Elgint\Projects\Agresso\Noda\Paras Beniwall\Western Gateway Scoping Figures\W\XD\AQMA - Gloucestershire.mxd Date Saved: 30/09/2024



Key
 Council Boundary
 Air Quality Management Area




Scale: 1:3,000,000

0 1.25 2.5 5 7.5 10 12.5 Km



Client:



Project

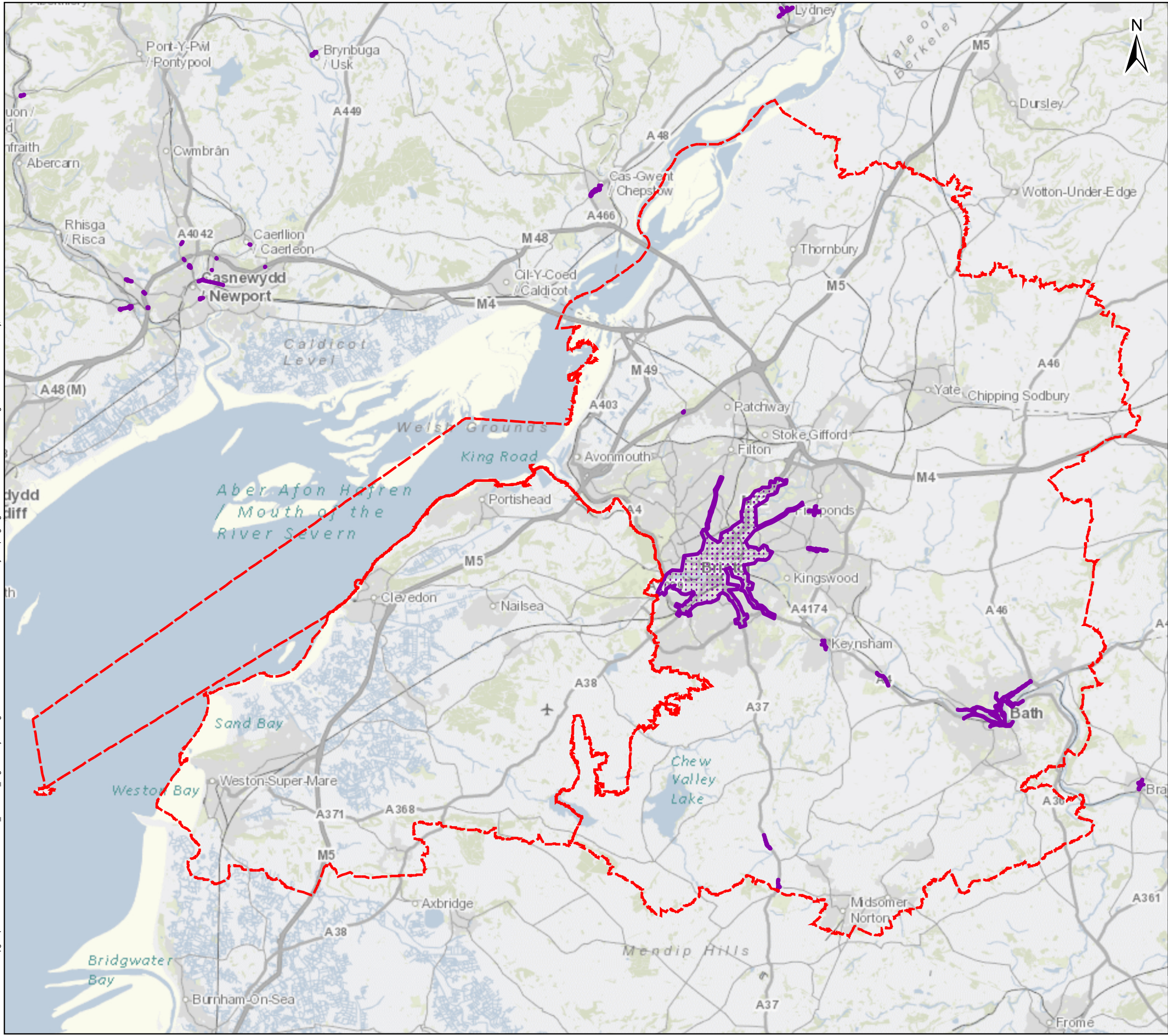
Western Gateway Strategic Investment Plan

Title:

Figure C-27 - Gloucestershire AQMA

Date:	30 September 2024	Scale:	250,000 @ A3
Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD

Document Path: \\uk.wspgroup.com\UKCentral\GISData\WSP_UK\WSP_Elgint\Projects\Agresso\Noda\Paras Beniwall\Western Gateway Scoping Figures\XD\AQMA - West of England Combined Authority, North Somerset.mxd Date Saved: 30/09/2024



Key

- Council Boundary
- Air Quality Management Area

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

Project:

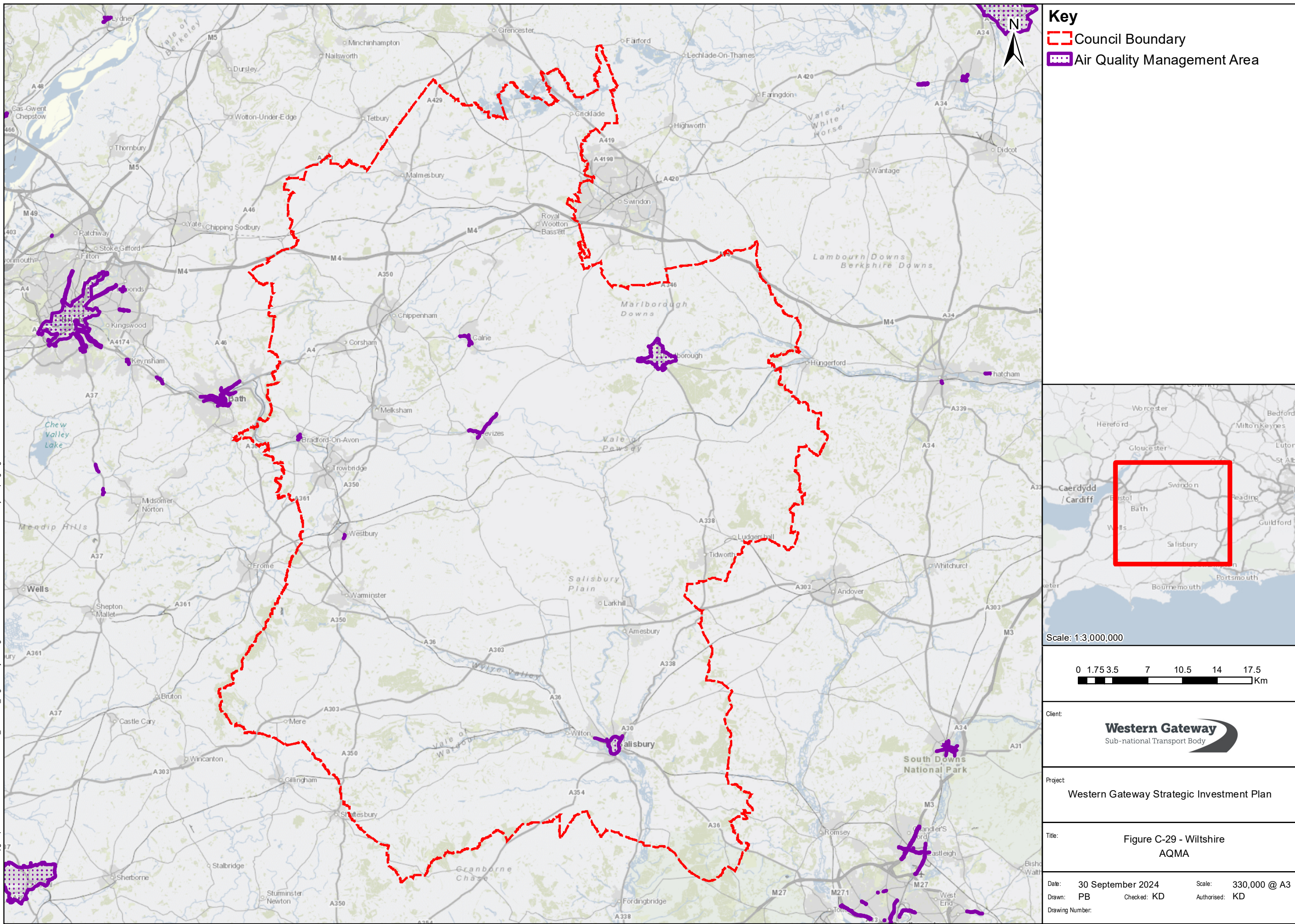
Western Gateway Strategic Investment Plan

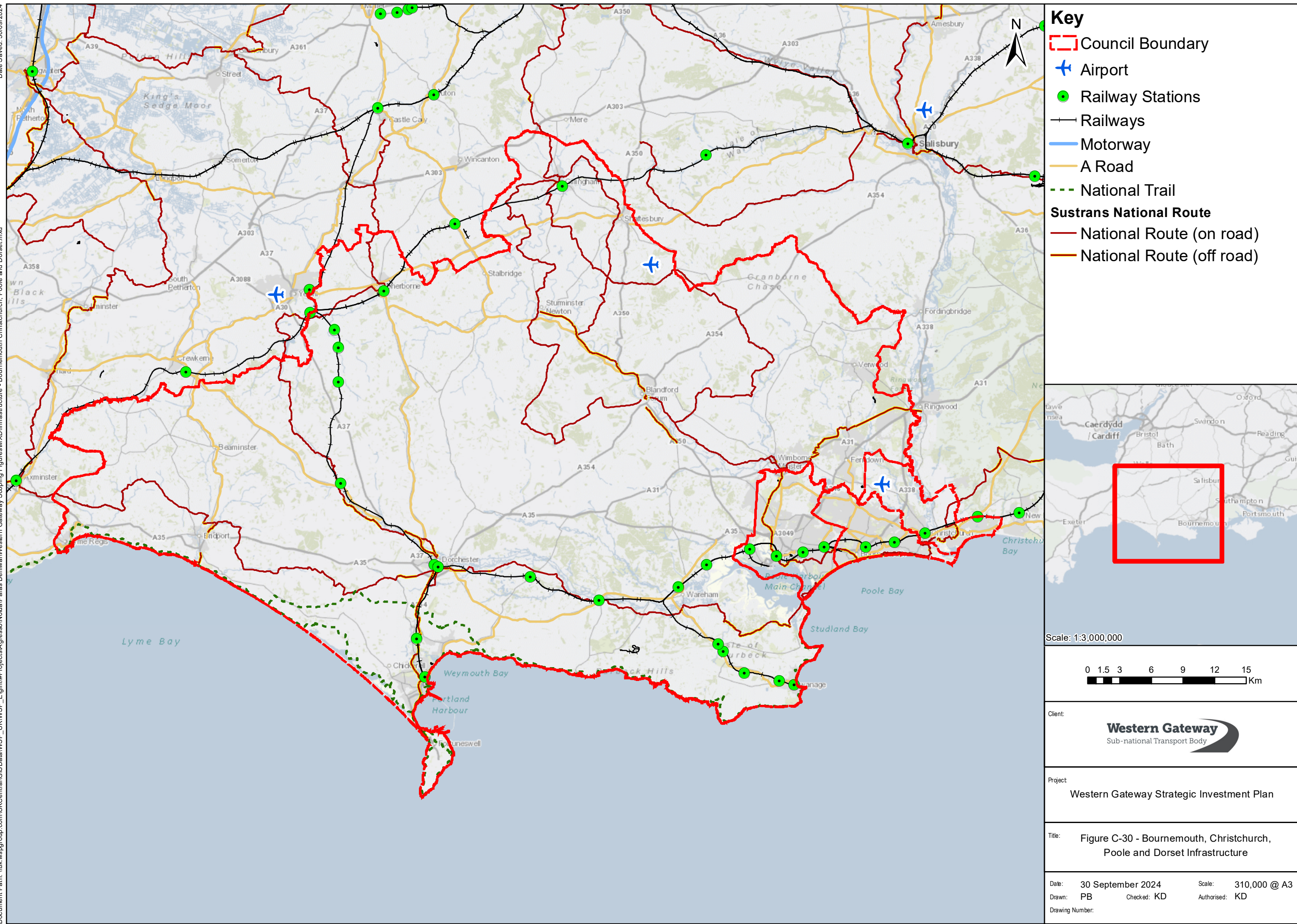
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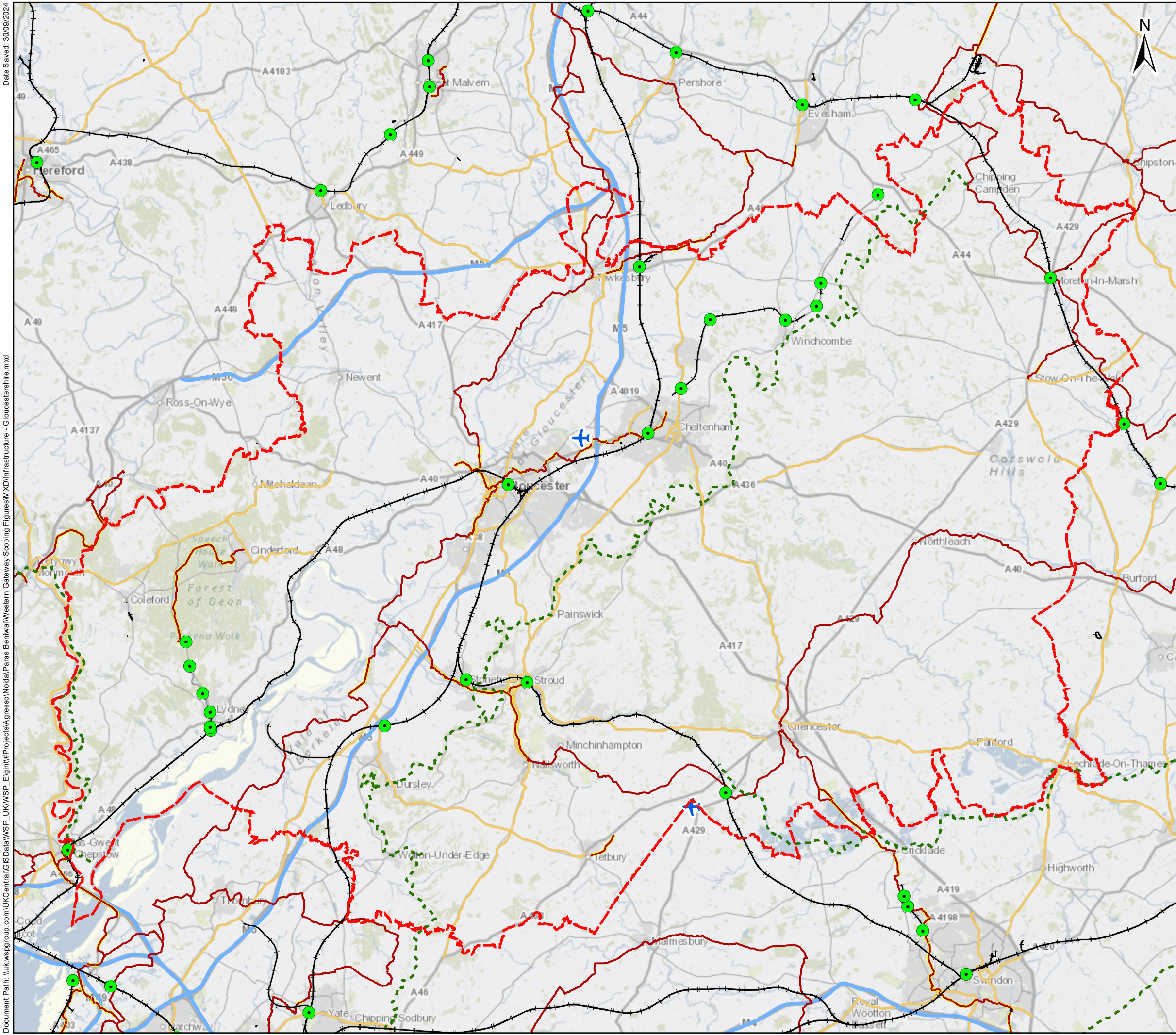
Figure C-28 - West of England Combined Authority & North Somerset AQMA

Date: 30 September 2024
Drawn: PB
Drawing Number:

Scale: 200,000 @ A3
Checked: KD
Authorised: KD







Key

- Council Boundary
- Airport
- Railway Stations
- Railways
- Motorway
- A Road
- National Trail

Sustrans National Route

- National Route (on road)
- National Route (off road)

Scale: 1:3,000,000

Client:

Western Gateway
Sub-national Transport Body

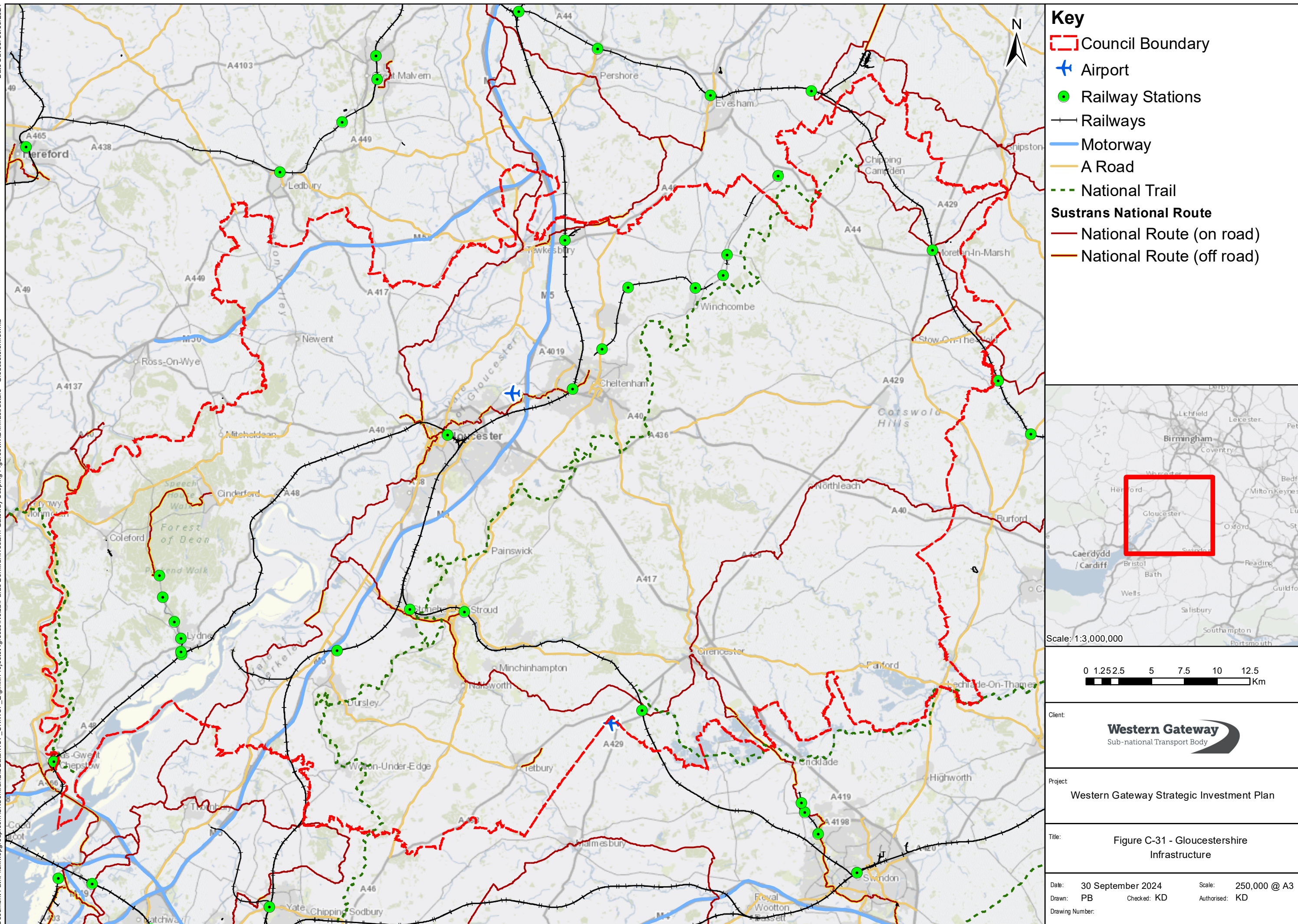
Project:

Western Gateway Strategic Investment Plan

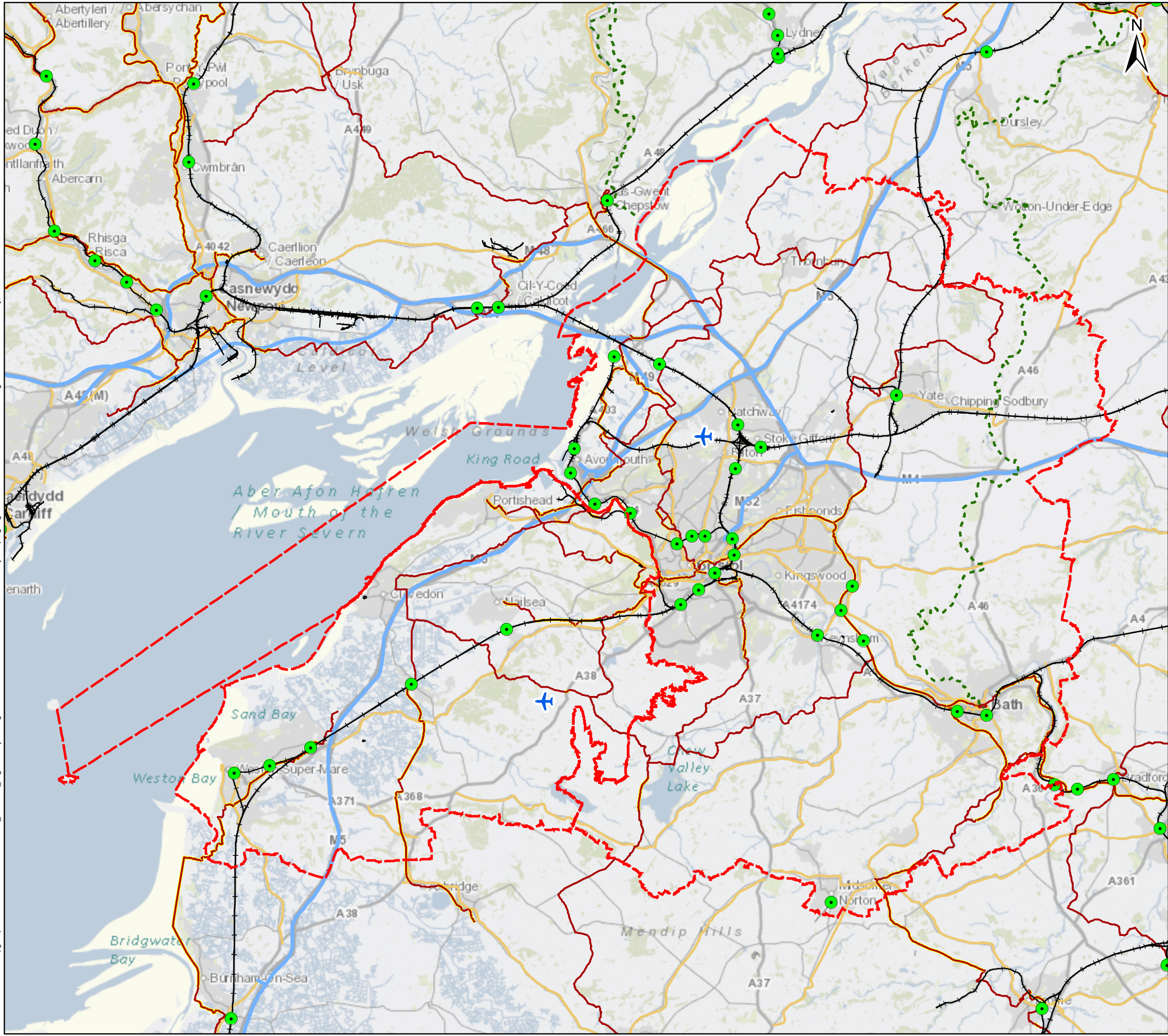
Title:

Figure C-31 - Gloucestershire Infrastructure

Date:	30 September 2024	Scale:	250,000 @ A3
Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD



Document Path: \\uk.wspgroup.com\UKCentral\GISData\WSP_UK\WSP_Eligint\Projects\Agresso\Noda\Paras Beniwal\Western Gateway Scoping Figures\XD\Infrastructure - West of England Combined Authority, North Somerset.mxd Date Saved: 30/09/2024



Key

- Council Boundary
- Airport
- Railway Stations
- Railways
- Motorway
- A Road
- National Trail

Sustrans National Route

- National Route (on road)
- National Route (off road)

Scale: 1:3,000,000

0 1 2 4 6 8 10 Km

Client:

Western Gateway
Sub-national Transport Body

Project:

Western Gateway Strategic Investment Plan

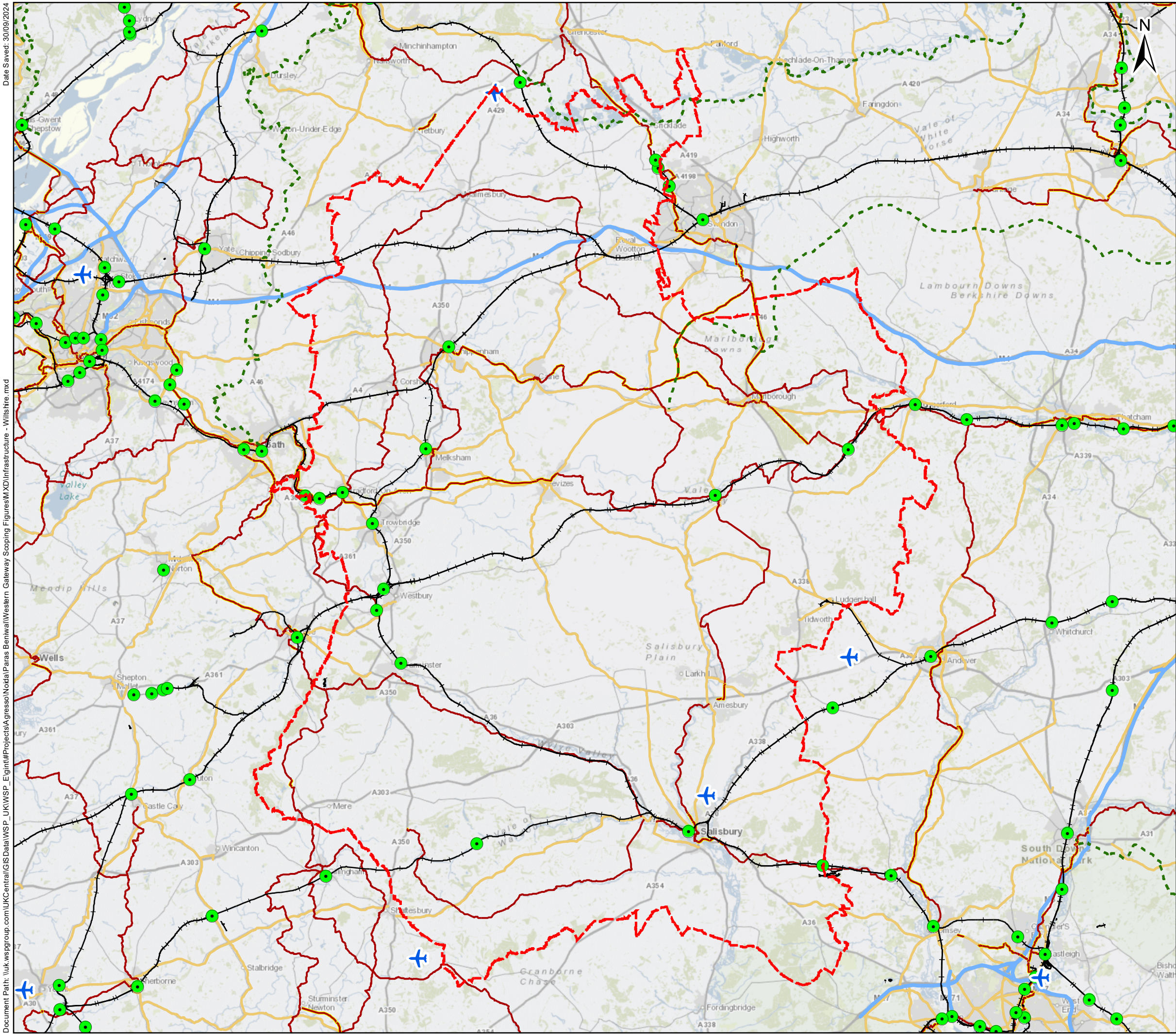
Title:

Figure C-32 - West of England Combined Authority & North Somerset Infrastructure

Date: 30 September 2024
Drawn: PB
Drawing Number:

Scale: 209,300 @ A3
Checked: KD
Authorised: KD

Document Path: \\uk.wspgroup.com\UKCentral\GISData\WSP_UK\WSP_Elgint\Projects\Agresso\Noda\Paras Beniwal\Western Gateway Scoping Figures\W\Infrastructure - Wiltshire.mxd Date Saved: 30/09/2024



Key

- Council Boundary
- Airport
- Railway Stations
- Railways
- Motorway
- A Road
- National Trail
- Sustrans National Route**
 - National Route (on road)
 - National Route (off road)

Scale: 1:3,000,000

0 1.75 3.5 7 10.5 14 17.5 Km

Client: **Western Gateway**
Sub-national Transport Body

Project: Western Gateway Strategic Investment Plan

Title: Figure C-33 - Wiltshire Infrastructure

Date:	30 September 2024	Scale:	330,000 @ A3
Drawn:	PB	Checked:	KD
Drawing Number:		Authorised:	KD

Appendix C

Consultation Comments

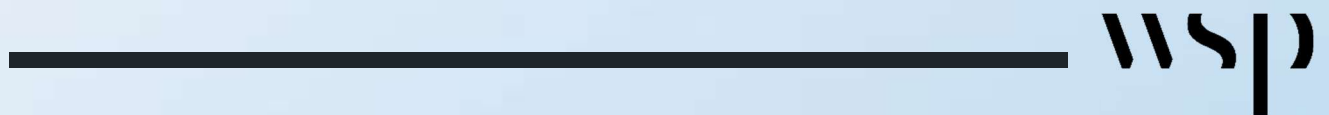


Table C-1 outlines the comments received from SEA Statutory Consultees in relation to the Scoping Report, while **Table C-2** outlines the comments received from both the public and statutory consultees in relation to the SEA, EqlA and HIA.

Table C-1 - Scoping Consultation Comments

Consultee	Comment	In reference to	Action required?	By Whom	Summary Action Taken/ Required
Natural England	Thank you for your consultation on the above. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. Please see below Natural England's advice on the SEA Scoping Report.	Scoping Report	No	N/A	General comment - no action required.
Natural England	Baseline Information Natural England has not reviewed the baseline information in detail. We have no comments on the accuracy or relevance of the data provided.	Scoping Report - Section 5	No	N/A	Noted.
Natural England	SEA Appraisal Framework The following comments are provided on the SEA Appraisal Framework: <ul style="list-style-type: none"> • Population and Human Health Supporting Appraisal Questions <ul style="list-style-type: none"> ▪ We welcome the inclusion of the following questions in the appraisal framework. <ul style="list-style-type: none"> o Provide and enhance community access to high quality open/green space and nature o Encourage healthy lifestyles and reduce health inequalities? • Green spaces support active lifestyles and provide opportunities for nature connection that benefit physical and mental health, wellbeing, and quality of life. Green infrastructure also helps to mitigate health risks such as urban heat stress, noise pollution, flooding, and poor air quality. 	Scoping Report - Section 6	No	N/A	Noted.
Natural England	<ul style="list-style-type: none"> • Biodiversity <ul style="list-style-type: none"> o Supporting Appraisal Questions <ul style="list-style-type: none"> ▪ In addition to question, Contribute towards the target of halting the decline in species abundance by 2030?, a further question could be included in the framework which considers whether the plan contributes the UK commitment to protect 30% of land and sea for nature by 2030 (30by30). ▪ Minimise impacts on designated and important biodiversity and provide net gains where possible? • This should be revised to avoid impacts on designated and important biodiversity and provide net gains where possible? • Designated and important biodiversity should be defined to provide clarity on assessment of this question. ▪ Prevent habitat fragmentation and promote ecological networks? • We would welcome if this question could be expanded to include not prejudicing future improvements to habitat connectivity. 	Scoping Report - Section 6	Yes	WSP	<p>WSP will include an additional appraisal question referring to the UK commitment to protect 30% of land and sea for nature by 2030.</p> <p>WSP will amend the wording of 'Minimise impacts on designated and important biodiversity and provide net gains where possible?' to state 'avoid impacts on designated and important biodiversity and provide net gains where possible?'.</p> <p>WSP will also amend the wording of 'Prevent habitat fragmentation and promote ecological networks?' to include not prejudicing future improvements to habitat connectivity.</p>

Natural England	<ul style="list-style-type: none"> • Landscape and Townscape <ul style="list-style-type: none"> o Supporting Appraisal Questions <ul style="list-style-type: none"> ▪ Incorporate green infrastructure and/or natural landscape principles into design? • We welcome the inclusion of this question in the appraisal framework. Natural England have created a Green Infrastructure Framework which includes 15 principles which define good green infrastructure and a Green Infrastructure Planning and Design Guide which provides evidence based practical guidance on how to plan and design good green infrastructure. We would welcome if this question could be expanded to include incorporation of nature-based solutions (e.g. For water management, climate adaptation, and air quality) into design 	Scoping Report - Section 6	Yes	WSP	WSP will amend this supporting question to include reference to nature-based solutions.
Natural England	<ul style="list-style-type: none"> • Water Environment <ul style="list-style-type: none"> o Supporting Appraisal Questions <ul style="list-style-type: none"> ▪ Reduce the potential contamination of waterbodies and watercourses? • This should be revised to Avoid the potential contamination of waterbodies and watercourses? ▪ Support green infrastructure development or retrofit SuDS, and other nature-based solutions or grey infrastructure to help deliver water quality improvements alongside other co-benefits like attenuating water and flood control? • We welcome the inclusion of this question in the SA framework 	Scoping Report - Section 6	Yes	WSP	WSP will amend the wording of this supporting question to state 'avoid'.
Natural England	<ul style="list-style-type: none"> • Material Assets <ul style="list-style-type: none"> o Supporting Appraisal Questions <ul style="list-style-type: none"> ▪ A further question should be added which considers the potential impact of the plan on geodiversity ▪ Minimise the loss of potentially high-grade agricultural land? • A more appropriate question would be Avoids the loss of Best and Most Versatile Agricultural Land? 	Scoping Report - Section 6	Yes	WSP	<p>WSP will include an additional appraisal question considering the impact of the plan upon geodiversity.</p> <p>WSP will amend the wording of the supporting question to remove 'minimise' and state 'avoids the loss of Best and Most Versatile Agricultural Land?'</p>
Natural England	<p>Appendix A – Review of Plans, Policies and Programmes</p> <p>Natural England has not reviewed the plans listed. However, we advise that the following types of plans relating to the natural environment should be considered where applicable to your plan area;</p> <ul style="list-style-type: none"> • Green infrastructure strategies • Local Nature Recovery Strategies • Rights of Way Improvement Plans • Shoreline management plans • Coastal access plans • River basin management plans • National Landscape/AONB and National Park management plans. • Relevant landscape plans and strategies. 	Scoping Report - Appendix A	Yes	WSP	WSP have reviewed Appendix A to ensure the applicable policies have been included.

Environment Agency	<p>Thank you for consulting the Environment Agency on the Strategic Environmental Assessment (SEA) Scoping Report for the Western Gateway Sub-National Transport Body (STB) Strategic Investment Plan (SIP), dated October 2024.</p> <p>We consider the SEA Scoping Report to be comprehensive with the matters that are included. In particular, we are pleased to see the following key messages that are given in the Policy Review chapter 4.2 of the Scoping Report.</p>	Scoping Report	No	N/A	General comment - no action required.
Environment Agency	<p>Water environment</p> <ul style="list-style-type: none"> • Water resources in the STB region are under increasing pressure from a growing population, climate change and environmental needs. • Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest flood risk. • Any 'essential infrastructure' proposed to be located in Flood Zone 3a or 3b should be designed and constructed to remain operational and safe for users in times of flood. • There is a need to: <ul style="list-style-type: none"> o Protect and enhance surface and groundwater quality and ensure that water quality is improved or maintained where possible; and o Avoid development in areas prone to flooding. 	Scoping Report - Section 4	No	N/A	General comment - no action required.
Environment Agency	<p>Biodiversity</p> <ul style="list-style-type: none"> • The UK Government has committed to halting the decline in species abundance by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042. • It has also committed to protect 30% of our land and sea for nature through the Nature Recovery Network and enhanced protections for marine protected areas. • There is a need to: <ul style="list-style-type: none"> o Identify opportunities for green infrastructure provision, recognising the multiple functions that green infrastructure provides to the area and linking into regional and national green infrastructure networks; o Protect and enhance biodiversity, including designated sites, priority species, habitats and ecological networks; o Minimise the impact on biodiversity and ensure net gain wherever possible; o Maintain and enhance ecosystems and their services; and o Improve the long-term sustainability of ecological and physical processes that underpin the functioning of ecosystems. 	Scoping Report - Section 4	No	N/A	General comment - no action required.

Environment Agency	<p>Air Quality, Greenhouse Gases and Climate Change</p> <ul style="list-style-type: none"> • The UK Clean Air Strategy outlines plans to reduce emission of pollutants and improve air quality by the year 2030. • All local authorities within the STB region have declared a climate emergency, pledging to take action to become carbon neutral in their Council operations by 2030, with the exception of Dorset Council who have pledged to become carbon neutral by 2040. These councils are also committed to helping their wider areas to achieve carbon neutrality. • National Highways and Network Rail have both pledged to become net zero across the whole network by 2050. • 2050 has also been agreed as the target date to achieve net zero carbon from transport in the Western Gateway Strategic Transport Plan. • Take all possible action to mitigate climate change, while adapting to reduce its impact. • Avoid increased vulnerability to the range of impacts arising from climate change. • There is a need to: <ul style="list-style-type: none"> o Ensure that air quality is maintained (through net maintenance) or enhanced and that emissions of air pollutants are kept to a minimum; o Reduce emissions of greenhouse gases that may cause climate change; o Increase energy efficiency and move towards a low carbon economy; o Ensure that infrastructure is resilient to the impacts of climate change; and o Support the transition to electric vehicles, especially in light of the ban on new petrol and diesel vehicles in the UK by 2035. 	Scoping Report - Section 4	No	N/A	General comment - no action required.
Environment Agency	We would expect any transport schemes, plans or strategies to address these matters and the others that are included in the SEA report.	Scoping Report	Yes	<p>Western Gateway STB</p> <p>WSP</p>	<p>WSP will assess the proposed options arising from the SIP and will provide recommendations to Western Gateway STB.</p> <p>Western Gateway STB will consider these recommendations and implement within any transport schemes arising from the SIP.</p>
Natural England	Thank you for consulting us on the SEA Scoping Report. I hope you find our comments below helpful. I've liaised with our National team and have taken the report section by section.	Scoping Report	No	N/A	General comment - no action required.
Natural England	Firstly however, I would draw you attention to the national Biodiversity Net Gain policy and legislation (Biodiversity net gain - GOV.UK) which is referred to only briefly in the report, but also the requirement to consider Local Nature Recovery Strategies (Local nature recovery strategies - GOV.UK). All local authorities that this report affects will have an approved LNRS or one that is in development.	Scoping Report	Yes	WSP	WSP have considered Biodiversity Net Gain policy within the scoping report, and will consider this within the upcoming SEA assessment. Additionally, Local Nature Recovery Strategies have been reviewed and considered for the Western Gateway STB Region.

Natural England	<ul style="list-style-type: none"> • 5.4.3 – the figures relating to the number of Habitats Sites recorded in Wessex are not correct. The report suggests there are 200 or 300 SAC or RAMSAR sites in the 4 counties that make up our Wessex area. We don't have that number in the entirety of England, so these figures need checking. It may be there has been some confusion and the total number of designated sites have been included. 	Scoping Report - Section 5	Yes	WSP	WSP will review the number of sites referenced in paragraph 5.4.3 to ensure this is correct.
Natural England	<ul style="list-style-type: none"> • 5.4.4 – I have not seen the mapping of all of the above from 5.4.3 in Appendix C. These maps will need checking. 	Scoping Report - Section 5	Yes	WSP	WSP will review the number of sites referenced in 5.4.3 and also figures within Appendix C to ensure the number and location of sites is correct.
Natural England	<ul style="list-style-type: none"> • 5.4.8 – this is not a comprehensive list of our national Landscapes. They mention important ecology in the Mendips and Cotswolds only. Yet in a later chapter they do cover the longer list of National Landscapes in Wessex. We would argue all the National Landscapes in the area the report covers are important for nature. We would suggest this paragraph is removed and the Landscape chapter is reinforced to cover all Wessex National Landscapes. 	Scoping Report - Section 5	Yes	WSP	A comprehensive list of national landscapes can be found in Section 5.5 and Appendix B to the scoping report. WSP will amend wording in paragraph 5.4.8 to remove reference to a limited number of national landscapes.
Natural England	<ul style="list-style-type: none"> • 5.7 + 5.8 – Water and Air Quality (AQ/WQ) are tremendously important for designated sites, and are likely to be the major impact pathways upon biodiversity from the developments coming from this plan. AQ/WQ needs to be cross referenced and mentioned in this plan. It is a common shortcoming that we see AQ Chapters focus on human health, WQ Chapters focus on SUDs and flooding. There are a raft of important and sensitive wetland habitats in Wessex that could potentially be impacted by this plan. 	Scoping Report - Section 5	Yes	WSP	WSP will consider indirect effects of air quality and water quality upon biodiversity when undertaking the SEA Assessment of the SIP.
Natural England	<ul style="list-style-type: none"> • Biodiversity Net Gain (BNG) only gets mentioned once in the main document. It gets inferred to a lot, but we think feel needs to be made clearer and needs its own section. We welcome its inclusion in the policy provision at the end of the report, but this is a key component for us on this project and, given its new legislative position, BNG needs to be front and centre. 	Scoping Report	Yes	WSP Western Gateway STB	<p>WSP have reviewed the scoping report and mentions to biodiversity net gain. It is included within the baseline under 'biodiversity', and as an appraisal question within the SEA Appraisal Framework. All options within the SIP will be assessed using these appraisal questions and any improvement to biodiversity net gain will be included within the main SEA report.</p> <p>As Biodiversity Net Gain is mandatory, any options arising from the SIP will be subject to this requirement. This will be managed by Western Gateway STB.</p>
Natural England	<ul style="list-style-type: none"> • SEA7 – this section doesn't go far enough in seeking the protection of designated sites. It does talk about minimising impacts and protecting integrity, but we feel the mitigation hierarchy needs to be referred to. Any projects relating to this strategy should look to avoid, then mitigate and if not possible compensate for any impacts that occur. This is particularly important for us on long linear NSIP type development. Given the scoping stage we would suggest that all options are considered to Avoid impact o 	Scoping Report - Section 6	Yes	WSP	WSP will include reference to the mitigation hierarchy within the appraisal questions for SEA7 to ensure any significant effects are mitigated against.

	designated site first e.g. to run an aviation fuel pipeline or trainline around a site rather than through. We would like to see reference to the well-established mitigation hierarchy approach in SEA7.				
Natural England	<ul style="list-style-type: none"> • SEA11 and SEA12 - See point above on 5.7 and 5.8. The resultant policies for AQ and WQ don't make any reference to our work. SEA11 and SEA12 – could cross reference to biodiversity issues as this will be the key impact pathways for us to consider. 	Scoping Report - Section 6	Yes	WSP	WSP will consider indirect effects of air quality and water quality upon biodiversity when undertaking the SEA Assessment of the SIP.
Natural England	<ul style="list-style-type: none"> • Appendix A – is a comprehensive list of documents they are considering, however we feel one document could usefully be included now. Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations - NEA001 	Scoping Report - Appendix A	Yes	WSP	WSP will review Natural England's advice document and consider it's applicability to the SEA Scoping Report.
Natural England	<ul style="list-style-type: none"> • Appendix B – see comment above, re designated site figures. All figures need a proper fact check. We think some of them are better here, but problems with all counties data. 	Scoping Report - Appendix B	Yes	WSP	WSP will review the number of sites referenced in Appendix B and also figures within Appendix C to ensure the number and location of sites is correct.
Historic England	<p>thank you for providing Historic England with the opportunity to comment on the draft scoping report. I hope the following suggestions will help inform minor adjustments to provide the basis for a robust assessment of the likely significant environmental effects of the strategic investment plans on the historic environment.</p> <p>My comments are made within the context of Historic England advice prepared to help those undertaking strategic environmental assessments; you may, of course, be familiar with.</p>	Scoping Report	No	N/A	General comment - no action required.
Historic England	<p>Vision and Objectives</p> <p>“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.”</p> <p>To support this Vision, we would anticipate your SEA will flag that an associated ‘environmental’ objective is required. Perhaps similar to the following, To improve environmental conditions where they currently exists and ensure new proposals are well designed, fit within their context and enhance a sense of place. This would accord with National Highways The Road to Good Design.</p>	Scoping Report - Section 2	Yes	WSP	WSP will assess the SIP and propose any additional recommendations to the SIP and Western Gateway STB, helping to minimise any negative effects arising from the SIP and its options.
Historic England	<p>Key messages from policy review</p> <p>We would strongly encourage reference to the Road to Good Design in your policy review and flag its key principles.</p> <p>In relation to the Historic Environment, page 9, we would encourage reference to the importance of a potential impact on the sense of place, character and experience of the historic environment. Policy review should pick up on the drive to recognise the opportunity for good design that</p>	Scoping Report - Section 4	Yes	WSP	WSP will review the Road to Good Design and include within the Scoping Report, Appendix A and Section 4, with particular reference to the historic environment.

	demonstrates a sensitivity to landscape and heritage that seeks to enhance the place and build a positive legacy for the future.				
Historic England	Baseline With regard to the baseline, could you please refer to Bath's second UNESCO World Heritage designation (Great Spa Towns of Europe) that was inscribed in 2021. We would also stress the importance of engaging local authority heritage expertise to ensure that key information from their Historic Environment Records (HERs) is available to you and to enable their local knowledge to inform a contextual, responsive and creative landscape led approach.	Scoping Report - Section 5	Yes	WSP	WSP will amend Section 5.6 to include Bath's second UNESCO World Heritage Designation. Historic Environment Records are considered when undertaking the SEA Assessment of options to ensure any likely significant effects on the historic environment are captured and mitigated against.
Historic England	Environmental Issues and Opportunities Historic England welcomes your reference to the importance of a landscape-led design approach (page 9 and 10), and we hope this will be one of your SEA recommendations. We welcome reference to the challenges, issues and opportunities for the historic environment but would encourage the relationship of good design to successful outcomes; again, The Road to Good Design is pertinent. Reference to the importance of restrained road design is also important; we all know the risk of 'over engineering', rather than vision led design. Whilst functional, new road design should respond positively and elegantly to the context. It can enhance a sense of place and add to what we have inherited, particularly through the use of appropriate materials and traditions, but does not make unnecessary superficial or superfluous visual statements.	Scoping Report - Section 5	Yes	WSP	WSP will review and include the Road to Good Design guidance within section 5.11, Section 4 and Appendix A.
Historic England	Paragraph 5.6.11. It may be appropriate here to refer to NPPF footnote 72, Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.	Scoping Report - Section 5	Yes	WSP	WSP will add an additional footnote to include non-designated heritage assets of archaeological impacts.
Historic England	Paragraph 5.6.11. Perhaps remove the reference to smells as this tends to trivialise the point. The NPPF Glossary defines setting, or GPA3 if one is required.	Scoping Report - Section 5	Yes	WSP	WSP will amend the wording of paragraph 5.6.12 to remove reference to smells.
Historic England	Appraisal Framework Historic England notes the proposed Objectives which should help to enable a positive assessment process. Re Landscape and townscape. It may be appropriate here to refer to the whether or not the proposal could be well integrated with the landscape/townscape (landscape-led design). Perhaps add an additional Bullet point • Incorporate the Road to Good Design principles?	Scoping Report - Section 6	Yes	WSP	WSP will include an additional appraisal question supporting SEA8 to include the Road to Good Design principles.

Table C-2 - Consultation Comments directly related to the SEA, HIA and / or EqIA from Public Consultation (December 2024 to January 2025)

Consultee	Consultation Question	Comment	In reference to	Action required?	By Whom	Summary Action Taken/ Required
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Big long term projects are vulnerable to significant changes in policy, the economy etc	SEA Report	Yes	WSP	The SEA considers the potential changes to long term projects as a result of economic and policy changes throughout the project lifetime. Potential changes to the state of the environment in the Western Gateway STB Region have been considered within the Future Baseline (Appendix B to the main SEA Report). A note to this effect has been added in paragraph 4.1.2 of the SEA Environmental Report
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	It seems like, noise, light and water pollution are missing.	SEA Report	No	N/A	Noted. These topics have been considered within the SEA Assessment.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	It will be important that biodiversity impacts are properly considered at project level as not properly assessed here.	SEA Report	No	N/A	As explained in the document, this an SEA report, therefore the aim is not to provide detailed assessment of individual project impacts. The need for project level assessment has been identified within the SEA Report.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	The impact on the care economy has been overlooked- Carers travel on foot more. Caring responsibilities often require them to make multiple short journeys during a day (for example, to drop children off at school, visit an elderly parent and shop for food) and to travel with dependents. But public transport systems tend to be built on the model, which carry people in and out of town centres, and so are much more suited to longer commuting journeys instead of multiple short journeys.	HIA EqIA	No	N/A	The HIA and EqIA have considered carers within their assessments of SIP Options as appropriate at this strategic level.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Embodied carbon is missing from SA.	SEA Report	No	N/A	The SEA has considered embodied carbon within the assessment of Climatic Factors. The SEA framework includes a supporting appraisal question on embodied carbon within Table 4-2.
Public Response	Do you think there are any impacts we have overlooked, or have any	What is the impact for region if we do nothing?	SEA Report	No	N/A	The SEA has included the potential for the future evolution of the baseline without the implementation of the SIP within the SEA Scoping Report. This is

	other comments on the sustainability appraisal?					included as Appendix B to the SEA Report.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	not considered the negative impacts on the environment from new housing that the government will require following any transport improvement.	SEA Report	No	N/A	Noted. The SEA has considered future housing developments within the cumulative effects assessment, considering Local Plans. The SEA can only assess what is available at the time of writing.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	reliance on community transport in the more rural areas which have no access to rail networks and/or public transport have not been considered.	SEA Report	No	N/A	The SEA has considered impacts upon rural areas within the assessment of SIP options. The SEA Framework considers the specific challenges to rural communities, and this has been considered within the assessment of SIP options, including whether they improve access to rural communities through community/public transport modes.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Have the proposals also been assessed through a strategic land use framework? It seems that some of the trade-offs, particularly if not mitigated coherently, risk undermining either environmental outcomes, or exacerbating climate change adaptation and mitigation activities, which would then seem to a factor which may increase the costs associated with the proposals.	SEA Report	No	N/A	<p>The SIP has been assessed using the Assessment Framework described in the SEA Environmental Report which follows SEA legislation and guidance. Potential interactions are considered in the SEA where key relationships between different environmental assets / resources and interventions are discussed as appropriate at this strategic level. Additionally, Section 7 Cumulative Effects reports considers where several individual policies and sites have a combined effect on an objective; and where several policies and sites each have insignificant effects but together have a significant effect. Key interactions and potential trade-offs will need to be considered at project level based on project level information.</p> <p>We note that the UK Government aims to develop a Land Use Framework which, once in place, will also guide the undertaking of environmental assessments.</p>

Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Add reference into the SEA on industry and sector best practice to safeguard one's experience of our sensitive and valued historic places and landscapes, for stakeholders to consider when schemes are further developed.	SEA Report	Yes	WSP	Reference to schemes needing to follow industry and sector best practice as they are further developed to be made in Section 8.1 Mitigation and Enhancement measures. It is already implicit in the text but agreed that best to state this clearly.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Add education of people in general on the consequences of their transport choices, both for carbon emissions, the future climate patterns and their health	SEA Report SIP	No	N/A	Noted. The SIP does not include specific policies/options relating the education of people with regard to their transport choices. The SIP proposes physical interventions across the Western Gateway STB Region and is therefore unlikely to educate people upon their transport choices. Therefore, this has not been included within the SEA Assessment.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	important to understand that at the strategic planning stage a precautionary approach is required as any actual impacts will be mostly unknown until the schemes reach option selection and design, at which time it will likely not only be possible but likely a requirement to ensure mitigations are included to minimise or eradicate the impacts where possible.	SEA Report	No	WSP	Noted. The SEA Report and Assessment have taken a precautionary approach to the assessment of the SIP and Options. This has been detailed within Section 3.6 of the SEA Report.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Health: Active travel routes facilitating access to green spaces, the sea and other places of relaxation for well-being and mental health should be specifically mentioned.	HIA SEA Report	Yes	WSP	The HIA has included an assessment of active travel options specifically. These options have also been assessed within the SEA, with specific mention to health and active travel in these assessments. To further clarify, the HIA has been amended to include a list of SIP options assessed within each section of the HIA assessment.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	We believe that there is scope and opportunity within the consultation to address the serious and ongoing issue of taxi and Private Hire Vehicle access refusals encountered all too often by guide dog and other assistance dog owners.	SIP EqlA	No	N/A	Noted. There are no SIP Options relating to the use of taxi and Private Hire Vehicles. Therefore, this issue cannot be included within the EqlA assessment of SIP Options.

Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	A Guide Dogs survey found that many taxi drivers are unaware of their legal obligations and the impact refusals have on assistance dog owners. E-scooters pose a particular risk to vulnerable people and notably to those who are blind or partially sighted. Guide Dogs would urge decision makers within the Western Gateway sub-national transport body and constituent local authorities to engage with this significant new research by UCL and seriously consider the recommendations from Guide Dogs contained within it in relation to current and future regeneration and infrastructure schemes across the Western Gateway region.	SIP EqIA	No	N/A	The SIP does not include any options specifically related to the use of taxis or Private Hire Vehicles, nor does it include reference to E-Scooters. Therefore this has not been considered within the EqIA assessment.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Infrastructure that reflects the reality of the lives of the young and old. These groups need access to active travel i.e. walking, through clear signposted safe walking routes.	EqIA	No	N/A	The SEA has included an assessment of the SIP options, including active travel options, with relation to age within the EqIA.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Effects of new major roads on drainage/existing flood plains.	SEA Report	No	N/A	The SEA has considered the water environment and flooding within the assessment of options within SEA13. SIP Options have been assessed using GIS data to establish their proximity to flood zones, and this has been detailed within the assessment of significant effects (Appendix E). New major infrastructure interventions will be subject to project level assessments which will inform project specific mitigation.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	SEA does not make reference to Glos District Council Local Plan	SEA Report	Yes	WSP	The SEA has been updated to include reference to the local plans within Gloucestershire within the assessment of cumulative effects section.
Public Response	Do you think there are any impacts we have overlooked, or have any other comments on the sustainability appraisal?	Junction 14 M5 was not reviewed by the SEA	SEA Report	No	N/A	Not in current list of proposals in the SIP, hence it has not been assessed in the SEA.

Public Response	Do you think the identified impacts are acceptable?	It looks like there's significant impact on the environment. It also makes no mention of current building plans and assumes a static population.	SEA Report	No	N/A	The SEA has considered future population growth within the assessment of SIP Options, specifically through SEA1. The Scoping Report (Appendix B to the SEA Report) also details the future baseline of the Western Gateway STB Region, including future population growth. The SEA Assessment has considered current development plans within the cumulative effects assessment. The SEA can only assess what is available at the time of writing.
Public Response	Do you think the identified impacts are acceptable?	Supported proposals that can be mitigated. Unmitigated impacts would need to be assessed case by case. Particularly concerned that some schemes projected to be at risk of flooding and to increase car use in some circumstances. Biodiversity and heritage impacts may be of concern, but dependent on level impact and value of assets.	SEA Report	Yes	Western Gateway STB Partners	The SEA has proposed high level mitigation measures within the assessment of SIP Options, and summarised these within Section 8 of the SEA Report. Individual project level assessments will be undertaken for interventions arising as a result of the SIP which by nature, size and/or location may result in potential adverse significant effects. These assessments will identify any potential significant effects resulting from individual schemes and propose mitigation measures to minimise these effects.
Public Response	Do you think the identified impacts are acceptable?	It does not appear to consider how people living in villages or towns that do not have direct access to transport are supposed to use facilities and services outside of their immediate location.	SEA Report HIA	No	N/A	The SEA has considered rural communities within assessment of SIP Options. This includes the impact of proposed options upon access to services and facilities. Additionally, this has also been considered within the HIA, with specific reference to access to services.
Public Response	Do you think the identified impacts are acceptable?	Not sufficient attention to inequality.	EqIA	No	N/A	An EqIA has been completed to support the assessment of the SIP. This has considered the inequalities that may arise as a result of SIP Options.
Public Response	Do you think the identified impacts are acceptable?	Not sufficient attention to the needs of active travel for the young and older adults.	EqIA	No	N/A	The EqIA has included an assessment of the SIP options, including active travel options, with relation to age within the EqIA.

Public Response	Do you think the identified impacts are acceptable?	Safe walking routes and access to public transport needed. - Wheels of every sort seem to be the priority. Everyone needs safe walking routes. Without safe walking routes to access public transport the car / taxi is the only option. Both expensive for the poor/ disadvantaged leading to isolation, poor health and further disadvantage.	SEA Report SIP	No	N/A	The SEA has assessed SIP Options and the consideration of safety as a result of these options within SEA1. These supporting appraisal questions have been detailed in Table 4-2.
Public Response	Do you think the identified impacts are acceptable?	You describe the negative impacts as 'potential' issues. However, there is nothing 'potential' about them - they ARE issues that will need mitigation, which needs to have the involvement of not just the project stakeholders but the public within these areas.	SEA Report	No	Western Gateway STB Partners	Western Gateway STB will consider the mitigation proposals set out within the SEA Report within any projects arising from the SIP. Individual project level assessments will be undertaken for interventions arising as a result of the SIP which by nature, size and/or location may result in potential adverse significant effects. These assessments will identify any potential significant effects resulting from individual schemes, and propose mitigation measures to minimise these effects.
Public Response	Do you think the identified impacts are acceptable?	Equalities impact for disabled people and their carers are not acceptable. It is not enough to simply improve access, as outlined in our previous response.	EqIA	No	WSP	The HIA and EqIA assessments have considered carers within their assessments of SIP Options where appropriate.
Public Response	Do you think the identified impacts are acceptable?	I work on a biodiversity project so having substantial negative impacts on biodiversity in the name of climate seems crazy	SEA Report	Yes	Western Gateway STB Partners	Western Gateway STB will consider the findings of the SEA, specifically in relation to biodiversity, within potential schemes arising from the SIP. Individual project level assessments will be undertaken for interventions arising as a result of the SIP which by nature, size and/or location may result in potential adverse significant effects. These assessments will identify any potential significant effects resulting from individual schemes, and propose mitigation measures to minimise these effects.
Public Response	Do you think the identified impacts are acceptable?	The west of the county, whilst contributing to the cost of these initiatives, will see little or no benefit especially if you have no means of transport other than public transport. This discriminates on the elderly.	SEA Report EqIA HIA SIP	Yes	Western Gateway STB	The SEA, HIA and EqIA have considered the impact of the SIP Options on the elderly located within the Western Gateway STB Region. Western Gateway will consider this response within its development of the final SIP Options.

Public Response	Do you think the identified impacts are acceptable?	We cannot keep building in flood zones.	SEA Report	No	Western Gateway STB Partners	The SEA has identified options that are located within flood zones and have identified schemes located in flood zone 3 as having potential significant negative effects. The SEA recommends mitigation measures to reduce the effects of flooding for options located in flood zones 2 or 3. Flood risk will continue to be considered as the interventions develop.
Public Response	Do you think the identified impacts are acceptable?	I am concerned about the 'significant' environmental and biodiversity impacts and any proposals which increase vehicle use.	SEA Report	No	N/A	The SEA has identified significant negative effects for biodiversity as a result of applying a precautionary approach to the assessment. The SEA has proposed mitigation measures for biodiversity. Individual project level assessments will be undertaken for interventions arising as a result of the SIP which by nature, size and/or location may result in potential adverse significant effects. These assessments will identify any potential significant effects resulting from individual schemes, and propose mitigation measures to minimise these effects.
Public Response	Do you think the identified impacts are acceptable?	The Equality benefits don't take into account those who do not own their own car and are reliant on public transport - much more significant than distinguishing than just ethnic minority groups. In addition, for those who do drive, a reduction in car use with a shift to greater use of public transport makes the system becomes more efficient.	EqIA	Yes	WSP	The EqIA has been updated to include specific references to the impacts of the SIP on those who do not have access to a private vehicle and include additional mention to this group where appropriate.
Public Response	Do you think the identified impacts are acceptable?	You cannot reduce vehicle (petrol/diesel) usage in areas where there are no alternatives available and the cost of purchasing electric vehicles is beyond most people's financial capacity. Improvements in transport have not been considered in some areas where significant houses are being built - particularly in the remoter areas of counties.	SEA Report EqIA	No	N/A	The SEA has assessed the SIP Options, which do not include measures specifically relating to electric vehicle use. The SEA has assessed the likely effects of the Options with relation to the local population in SEA1, as well as the equalities of the SIP Options within the EqIA. The SEA has also considered the cumulative effects of the plan, which includes potential housing developments.

Public Response	Do you think the identified impacts are acceptable?	Include horse riders as vulnerable road users	SEA Report	Yes	WSP	The SEA has been updated to include horse riders as vulnerable road users in Table 4-1.
Public Response	Do you think the identified impacts are acceptable?	Consideration must be given to the movement of wild animals, i.e. deer, badgers, hedgehogs etc which must have travel lanes over and under these new improved road and railways.	SIP SEA Report	Yes	Western Gateway STB Partners WSP	The SEA has been updated to include an additional mitigation measure within the SEA Report to address the movement of animals. Western Gateway STB Partners will consider this comment within the design of schemes that arise as a result of the SIP.
Historic England	N/A	Thank you for providing an opportunity to consider and respond to the proposed Investment Plan and its 35 individual schemes. Historic England welcome an encouragement of sustainable forms of transport and endorse appropriately designed improvements to, for example, public places, including streets, stations, bus stops and improved cycling facilities, which make alternatives to the car appealing and accessible.	SEA Report	No	N/A	General comment, no action required.
Historic England	N/A	We note on page 36 that your Sustainability Appraisal considers that the majority of options are identified as likely to have significant negative effects on designated heritage assets and/or landscapes ...but the impacts can only be quantified when the proposals are developed in more detail. Although this appears rather alarming, we do however recognise that many of the 35 proposals relate to improvements to bus, coach and rail services, to existing stations and rail infrastructure where, if carefully considered, the impact on the historic environment is likely to be limited.	SEA Report	No	N/A	Noted. No action required.
Historic England	N/A	There are indeed several proposals where, if well designed, can have a positive heritage impact such as in relation to the Bournemouth and Weymouth town centre public realm projects and Bristol and Bath walking and cycle initiatives.	SEA Report	No	N/A	Noted. No action required.
Historic England	N/A	Nevertheless, to address the risk and avoid a potential significant negative affect as indicated by the Sustainability Appraisal, it will be important for the design of these schemes to be well considered and implemented, deploying industry and sector best practice to safeguard one's experience of our sensitive and valued historic places and landscapes. We look forward to appreciating proposals that do so in due course.	SEA Report	No	N/A	Noted. No action required.
Historic England	N/A	National Highways The Road to Good Design is one good example that shows the art of the possible and how new infrastructure including re-engineered roads and junctions; interchanges and the like can be successfully delivered to	SEA Report	No	N/A	Noted. No action required. The SEA includes reference to the Road to Good Design within Appendix B to the SEA Report.

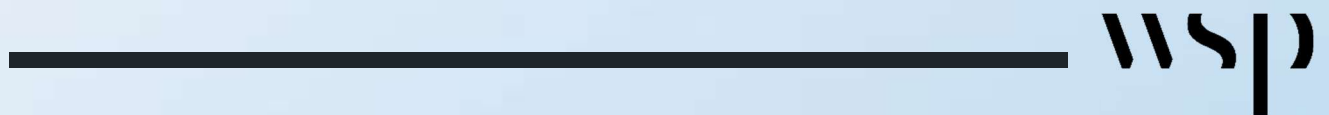
		efficiently and beautifully fit within, and positively respond to their historic and natural contexts.				
Guide Dogs	N/A	<p>Guide Dogs is pleased that the Western Gateway sub-national transport body has identified that “Safety in the public realm and on public transport, particularly for vulnerable users, should be designed into proposals” and that the body “will work with partners as part of our Regional Centre of Excellence approach to facilitate the delivery of active and public transport infrastructure and services that cross local boundaries” and we would be happy to support this.</p> <p>However, within the Western Gateway Strategic Investment Plan EqlA, whilst we would likely agree that “People with a disability will benefit from the active travel improvements, which is important given that walking is one of the two main modes of transport for disabled adults in England” , this will only be the case for people who are blind or partially sighted if infrastructure changes to the pedestrian environment are inclusive, accessible and safe.</p> <p>Guide Dogs would urge decision makers within the Western Gateway sub-national transport body and constituent local authorities to engage with this significant new research by UCL and seriously consider the recommendations from Guide Dogs contained within it in relation to current and future regeneration and infrastructure schemes across the Western Gateway region. I have included the report summary, “Designing for Inclusion; The accessibility challenges of some active travel infrastructure for people with vision impairment and other disabled people” with this response, and the full research is available to download through the following link: Technical Report 2024 (gd-prod.azureedge.net)</p>	EqlA SIP SEA Report	Yes	WSP Western Gateway STB	<p>The SEA has included an additional mitigation measure relating the ensuring the pedestrian environment is inclusive, accessible and safe for disabled users including visually impaired users, where appropriate.</p> <p>Western Gateway STB will consider this comment within the development of the SIP and developments that may arise from the SIP.</p>
Public Response	N/A	Equalities impacts haven't addressed people on low incomes or elderly access to services	EqlA	No	N/A	<p>The SEA has considered the impacts upon people on low incomes within the SEA Assessment (SEA1: Population). The EqlA has also considered effects upon the elderly within the assessment of the protected characteristic: age.</p>
Public Response	N/A	Full equalities impact assessments need to carried out for each scheme and diversity impact assessments for railway schemes	EqlA	Yes	Western Gateway STB Partners	<p>Promoters of the Individual projects arising from the SIP will need to consider The Public Sector Equality Duty (Section 149 of the Equality Act 2010).</p>
Public Response	N/A	Good as far as they go. Should you add "Quality of life" impacts? - Journey times and costs, and how long people have to wait for public transport for example?	SEA Report	No	N/A	<p>The SEA and HIA have considered quality of life throughout the assessment of SIP Options, within both assessments. These include assessments of public transport services and any</p>

						improvements to service availability is considered.
Public Response	N/A	It is good to consider potential disadvantages and to mitigate for them, especially in terms of safety and security for younger people who can be intimidated by unlit areas. If small shops are situated near rail stations this can provide the necessary assurance to young people (not just women but young white men who are also significant victims of assault). Step-free access is helpful not just to the disabled but to young parents and their toddlers. However, none of this should be a reason not to implement public transport interventions, whether bus or rail. Cycling on the new e-bikes is now a convenient and safe experience, even if taking an e-scooter can feel a bit precarious!	SEA Report EqIA	No	N/A	The SEA has considered safety and security, including feelings of safety, within their assessment of SIP Options. This is included within SEA1: Population. Additionally, this has been considered within the EqIA assessment within the Age protector characteristic assessment.
Public Response	N/A	Lack of meaningful data. Loss of agricultural land, issues with flood areas, significant negative effects on biodiversity, pollution and increased noise from more traffic and additional transportation of goods - all these factors (unquantifiable at the moment) sound massively negative.	SEA Report	No	N/A	The SEA has taken a precautionary approach to the assessment of SIP options, proportionate to the high level nature of the SIP. Individual project level assessments will be undertaken for interventions arising as a result of the SIP which by nature, size and/or location may result in potential adverse significant effects. These assessments will identify any potential significant effects resulting from individual schemes, and propose mitigation measures to minimise these effects.
Public Response	N/A	There also seems to be some confusion in the Environmental Report about the role of SuDS, which should be considered for all 'major development involving surface water drainage' to reduce the risk of flooding elsewhere, not just to reduce the risk of flooding on projects in areas at risk of flooding (Flood risk assessment: flood zones 1, 2, 3 and 3b - GOV.UK. The flood zones 1-3 relate to risk of flooding from rivers and the sea so additional checks are required to identify areas at risk of flooding from surface water, groundwater and reservoir flooding. Associated risks of landslip and slope failure and contamination are mentioned briefly but not explored in sufficient detail to assess the scale of impacts.	SEA Report	No	N/A	The SEA has identified options located within flood zones and proposed the use of SuDS in order to mitigate any potential significant effect arising from options. This is in line with the strategic level of the SIP. However, all projects arising from the SIP will be subject to individual assessment, including flood risk assessment, and will consider the implementation of SuDS on an individual project basis.
Public Response	N/A	Impacts need to be accurately described and mitigations properly investigated before they can be considered acceptable.	SEA Report	No	N/A	The SEA has assessed impacts in line with the strategic nature of the SIP and described effects using the best available data. Mitigation measures have been proposed within the SEA. Individual project level assessments will

						be undertaken for interventions arising as a result of the SIP which by nature, size and/or location may result in potential adverse significant effects. These assessments will identify any potential significant effects resulting from individual schemes, and propose mitigation measures to minimise these effects.
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Appendix D

Key to Assessments



WESTERN GATEWAY STB SIP SEA ASSESSMENT GUIDE

SEA Assessment

The assessment of SEA objectives follows the following potential effects set out in **Table D-1**. Each option will need to be scored for their effect significance based on the criteria outlined in **Table D-2**.

Table D-1 - Key to Effects

Key to Effects	
	<i>Effect Significance</i>
Potential for significant positive effects	++
Potential for significant negative effects	--
Uncertain effects	?
Negligible or no effects	0

Table D-2 – Definitions of Significance

SEA Objective	Assessment Significance and Justification		Receptor Indicator/Distance
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	Significant Positive (++)	The intervention improves connectivity and access for current and future populations across the Western Gateway STB Region. The Intervention also improves access for those without access to a private vehicle, and those with a long term health condition or disability.	N/A
	Significant Negative (--)	None of the options are considered likely to have significant negative effects on population and equalities.	N/A
	Uncertain (?)	It is currently unclear whether the option will improve connectivity and access as this is likely to be determined by individual scheme design and is currently unknown.	N/A
	Neutral/Negligible (0)	The option improves connectivity and access on a small scale and does not consider improvements to equalities.	N/A
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	Significant Positive (++)	The option focuses on and could result in significantly improved opportunities for active travel, improving physical activity, as well as improving mental wellbeing and providing improvements to air quality, improving human health.	N/A
	Significant Negative (--)	While there is the potential for options to have negative effects on human health, particularly in the short term during construction, it is assumed that there are mitigation measures available to ensure that any residual effects are not significant. None of the options are considered likely to have a significant negative effect on human health in the short or long term once mitigation is taken into account.	N/A
	Uncertain (?)	While not the focus of the option, it includes elements that could result in improved opportunities for active travel.	N/A
	Neutral/Negligible (0)	The option does not include any elements related to active travel.	N/A
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	Significant Positive (++)	The option proposes interventions that would address a current significant safety issue.	N/A
	Significant Negative (--)	None of the options are considered likely to have significant negative effects on safety.	N/A
	Uncertain (?)	It is assumed all schemes will result in safety improvements for users. However, this is likely to be determined by individual scheme design.	N/A
	Neutral/Negligible (0)	The option does not include any elements that are likely to significantly improve or reduce current safety levels.	N/A
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and	Significant Positive (++)	<p>The option could deliver all of the following:</p> <ul style="list-style-type: none"> • improve access to regionally or nationally significant destinations; • improve access to national or international gateways; • overcome a severance or connectivity issue that unlocks regional benefits or resilience; • facilitate movement along the Midlands – South Coast strategic corridor; and • increase efficiency, reliability and/ or sustainability of essential goods movement on strategic routes. 	N/A

support economic success.	Significant Negative (--)	None of the options are considered likely to have a significant negative effect in the long term as to be realistic they must be in line with the aims and objectives of the Strategic Transport Plan. This includes five economic objectives that seek to enhance integration and connectivity between employment clusters and to international markets. While there is the potential for significant negative effects in the short term at a local scale during construction, it is assumed that there is suitable mitigation available to ensure that residual effects are not significant.	N/A
	Uncertain (?)	The option could deliver at least one or more of the following: <ul style="list-style-type: none"> improve access to regionally or nationally significant destinations; improve access to national or international gateways; overcome a severance or connectivity issue that unlocks regional benefits or resilience; facilitate movement along the Midlands – South Coast strategic corridor; and increase efficiency, reliability and/ or sustainability of essential goods movement on strategic routes. 	N/A
	Neutral/Negligible (0)	The option would deliver some form of improvement to the transport network, including: <ul style="list-style-type: none"> improve access to regionally or nationally significant destinations; improve access to national or international gateways; overcome a severance or connectivity issue that unlocks regional benefits or resilience; facilitate movement along the Midlands – South Coast strategic corridor; and increase efficiency, reliability and/ or sustainability of essential goods movement on strategic routes. However, it is not considered likely that the improvements would lead to a significant positive effect.	N/A
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	Significant Positive (++)	The intervention is located within a rural community (less than 10,000 residents) and provides improved access to employment, visitor attractions, and tourism for rural communities.	N/A
	Significant Negative (--)	None of the options are considered likely to have significant negative effects on population and equalities.	N/A
	Uncertain (?)	It is currently unclear whether the option will improve rural economies as this is likely to be determined by individual scheme design and is currently unknown.	N/A
	Neutral/Negligible (0)	The option improves access to rural economies within a local area but does not provide wider improvements to rural economies.	N/A
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	Significant Positive (++)	The option will directly facilitate housing growth within the Western Gateway STB Region.	N/A
	Significant Negative (--)	N/A	N/A
	Uncertain (?)	N/A	N/A
	Neutral/Negligible (0)	It is considered that all of the options are likely to contribute to the enhancement of the transport network/ capacity, which will enable future housing growth across the region. All are likely to have a positive effect but this is unlikely to be significant individually.	N/A
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable	Significant Positive (++)	At this stage it is not possible to determine if an option is likely to have a significant positive effect on biodiversity. It is assumed that any option could potentially deliver some form of biodiversity net gain but this is uncertain. Therefore, no significant positive effects can be identified at this time, this is likely to be determined at the project level.	N/A

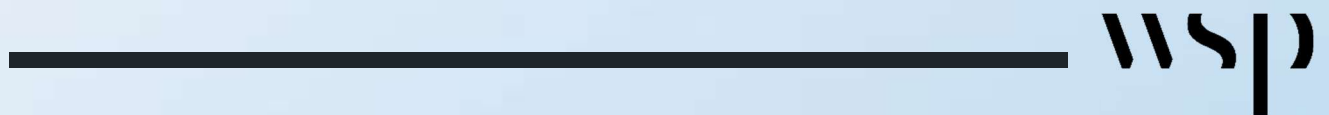
ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	Significant Negative (--)	The option intersects or is located within 500m of a nationally designated site (SAC, SPA, Ramsar, SSSI and National Nature Reserve). It is recognised that distance in itself is not a definitive guide to the likelihood or significance of effects on biodiversity. This will be dependent on potential pathways for impacts to travel along and a variety of information, some of which is not available at this stage, such as the precise design and layout of the option as well as level of mitigation to be provided.	Intersects or within 500m
	Uncertain (?)	The option is located between 500m and 1km away from a nationally designated site (SAC, SPA, Ramsar, SSSI and National Nature Reserve), or it is unclear if the option will result in any effects upon designated sites, habitats or species	Between 500m and 1,000m
	Neutral/Negligible (0)	The option is located more than 1km away from a nationally designated site, or is not anticipated to result in any effects upon designated sites.	> 1,000m
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	Significant Positive (++)	At this stage, there is no evidence to suggest that any option would deliver significant enhancements to the landscape and/ or townscape. Therefore, no significant positive effects can be identified at this time, this is likely to be determined during the option design stage.	N/A
	Significant Negative (--)	The option intersects or is located within 500m of a National Park or National Landscape.	Intersects or within 500m
	Uncertain (?)	The option is located more than 500m away from a National Park or National Landscape and had potential to effect landscape and townscape setting.	> 500m
	Neutral/Negligible (0)	The option is locate more than 500m from a National Park or National Landscape and is not anticipated to result in any effects on landscape and townscape.	N/A
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	Significant Positive (++)	At this stage, there is no evidence to suggest that any options will result in a significant enhancement to the historic environment. Therefore, no significant positive effects can be identified at this time, this is likely to be determined during the option design stage.	N/A
	Significant Negative (--)	The option intersects or is located within 500m of internationally (World Heritage Site) or nationally (Scheduled Monument, Conservation Area, Registered Parks and Gardens, Battlefields and Listed Buildings (Grade I or II*)) designated heritage asset. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary has been taken.	Intersects or within 500m
	Uncertain (?)	The option is located more than 500m and within 1km from an internationally (World Heritage Site) or nationally (Scheduled Monument, Conservation Area, Registered Parks and Gardens, Battlefields and Listed Buildings (Grade I or II*)) designated heritage asset.	Between 500m and 1,000m
	Neutral/Negligible (0)	The option is located more than 1km away from an internationally (World Heritage Site) or nationally (Scheduled Monument, Conservation Area, Registered Parks and Gardens, Battlefields and Listed Buildings (Grade I or II*)) designated heritage asset, or is not anticipated to result in any effects upon designated or non-designated assets.	> 1,000m
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community	Significant Positive (++)	N/A	N/A
	Significant Negative (--)	N/A	N/A
	Uncertain (?)	Options that are likely to contribute to improved connectivity and therefore indirectly enhance access to the historic environment and heritage assets across the region. There is also the potential to negatively effect access in the short term during construction but this is uncertain at this stage.	N/A

cohesion, and provide a “sense of place”.	Neutral/Negligible (0)	Options that are not likely to directly or indirectly effect access to heritage assets.	N/A
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	Significant Positive (++)	At this stage, there is no evidence to suggest that any options will result in a significant positive effect on the water environment. Therefore, no significant positive effects can be identified at this time, this is likely to be determined during the option design stage.	N/A
	Significant Negative (--)	None of the options are considered likely to have a significant negative effect on the water environment at this stage. It is assumed that there is sufficient mitigation available to ensure that residual effects are not significant.	N/A
	Uncertain (?)	<p>The option intersects or is within 100m of a waterbody that is identified as having bad/ poor ecological quality (surface water body) and/ or poor chemical status (groundwater bodies). Please note that all surface water bodies now fail chemical status objective due to changes in the methods and evidence base. As a result, this does not help to differentiate between the options or inform the evaluation of significant effects so has therefore been excluded.</p> <p>The objective is the planned status of a water body that must be achieved or maintained. There are two different status objectives for each water body. For surface waters these are ecological status or potential objective and chemical status objective; for groundwater these are quantitative status objective and chemical status objectives. The water body objectives are derived from the objectives for the relevant individual elements within the water body.</p>	Intersects or within 100m of waterbody that has bad/ poor ecological status or poor chemical status.
	Neutral/Negligible (0)	The option does not intersect or is within 100m of a waterbody.	> 100m from waterbody
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	Significant Positive (++)	The option is located within 500m of an AQMA and it could help to address the existing issue by reducing traffic and/ or improving accessibility to sustainable transport modes and reducing reliance on private vehicles.	Intersects or within 500m of an AQMA
	Significant Negative (--)	The options are seeking to address improve connectivity and accessibility to sustainable modes of transport and address capacity issues where they exist. As a result, none of the options are considered likely to have a significant negative effect on air quality compared to the baseline.	N/A
	Uncertain (?)	The option is located within 500m of an AQMA but it is uncertain if it would help to reduce traffic and/ or improve accessibility within the AQMA.	N/A
	Neutral/Negligible (0)	The option is greater than 500m from an AQMA and it is unlikely to significantly improve air quality.	N/A
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	Significant Positive (++)	At this stage there is no evidence to indicate that any option would have a significant positive effect, i.e. would significantly reduce or remove the current risk of flooding.	N/A
	Significant Negative (--)	The option is located either fully or partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to still flag the potential for significant effects at this stage.	Within Flood Zone 3
	Uncertain (?)	The option is located either fully or partially within Flood Zone 1 or 2. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to still flag the potential for uncertain effects at this stage.	Within Flood Zone 1 or 2

	Neutral/Negligible (0)	At this stage there is no evidence to indicate that any option would have a neutral or negligible effect.	N/A
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	Significant Positive (++)	The option has a high likelihood to: <ul style="list-style-type: none"> Reduce annual regional transport carbon emissions from 6,250kt CO2e (2019) to net zero by 2050; and Deliver the infrastructure/conditions/services necessary to prioritise a shift to low carbon modes. 	N/A
	Significant Negative (--)	None of the options are expected to have significant negative effects in terms of increased greenhouse gas emissions. The environmental objectives of the Strategic Transport Plan include the decarbonisation of the transport network and adoption of electrification and/ or alternative fossil-fuel-free transport.	N/A
	Uncertain (?)	The option has a high likelihood to: <ul style="list-style-type: none"> Reduce annual regional transport carbon emissions from 6,250kt CO2e (2019) to net zero by 2050; or Deliver the infrastructure/conditions/services necessary to prioritise a shift to low carbon modes. 	N/A
	Neutral/Negligible (0)	The option will encourage a modal shift to more sustainable transport, and will lead to a reduction in transport related emissions, however the scale is not deemed to be significant.	N/A
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	Significant Positive (++)	At this stage it is considered unlikely that any option would have a significant positive effect against this SEA objective. It is assumed that any of the options could reuse and/ or use recycled materials where possible.	N/A
	Significant Negative (--)	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 or 3a) and falls within a mineral safeguarded area.	Within ALC Grades 1, 2, or 3a and a mineral safeguarded area
	Uncertain (?)	At this stage, no uncertain effects have been identified for options.	N/A
	Neutral/Negligible (0)	The option would not result in the loss of Best and Most Versatile agricultural land and is not within a mineral safeguarded area.	Does not fall within ALC Grades 1, 2 or 3a or a mineral safeguarded area.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	Significant Positive (++)	The option relates to the maintenance/ upgrade of existing infrastructure and/ or it supports/ enables the transition to renewable energy sources.	N/A
	Significant Negative (--)	None of the options are considered likely to have a significant negative effect on this objective.	N/A
	Uncertain (?)	The option provides new infrastructure and some upgrading of existing infrastructure and it is currently unclear if it provides climate resilience measures.	N/A
	Neutral/Negligible (0)	The option does not relate to the maintenance/ upgrade of existing infrastructure and it does not support/ enable the transition to renewable energy sources.	N/A

Appendix E

Assessment of Options



Assessment of Preferred SIP Options

The SIP preferred options have been assessed below. These options have been listed by their Option ID code, with their project name and proposer also included. Options have been assessed individually using the methodology detailed in **Appendix D** and summarised in **Section 3 of the main SEA report**.

The list of Preferred SIP Options can be found in **Table E-1** below.

Table E-1 – List of Preferred SIP Options

Project Code	Project name	Type of proposal	Project Description
DC-2024-MIX-004	South East Dorset Rural Mobility Pilot	Mixed - MIX	The pilot responds to the joint Peninsular & Western Gateway South West Rural Mobility Strategy, seeking to address these issues with strategic level bundled interventions designed to deliver safe and secure transport, and equal opportunity to access services, employment and education. This will include increasing bus frequencies on core bus routes into the conurbation as identified through the BSIP, developing a network of multi-modal mobility hubs, and developing feeder Demand Responsive Services into the hub locations where a range of onward travel opportunities are available. The proposal would add value to the Dorset Metro proposals with Wareham acting as a key hub location for onward travel within the Purbeck area.
GCC-2024-FODCSV-000	Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol	Public Transport (Services) - PTS	Chepstow Transport Strategy identifies a package of public transport scheme priorities which includes the Chepstow - Lydney corridor. This will overcome severance and connectivity issues that unlock regional benefits of resilience and access to international gateways - Bristol Airport. Strategic airport coach links will increase sustainable journeys and reduce congestion on the M5 SRN, releasing capacity for essential long-distance journeys N-S regional connectivity.
NR - 2024 - PTI-016	Improvement of gateline capacity and customer facilities at Bournemouth station	Public Transport (Infrastructure) - PTI	Series of improvements to downside and upside station facilities to improve capacity and safety and enhance customer experience including widening gateline on downside, creation of new mobility hub on downside, expanded and enhanced toilets on downside, relocation of existing footbridge and installation of lifts and new waiting room facilities on both sides.
NR-2024-PTI-011	Westbury Platform 0	Public Transport (Infrastructure) - PTI	Additional platform at Westbury, which will enable the running of an hourly Paddington - Westbury service and support an hourly TransWilts train service
DC-2024-MIX-003	Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation.	Mixed - MIX	Delivery of a strategic cross boundary sustainable travel network including active travel routes and bus corridor improvements seeks to reduce road congestion and promote safe, and healthy alternatives to car use, especially for shorter journeys. The sustainable travel corridors to be delivered include: <ul style="list-style-type: none"> • Wareham to Poole town centre • Ferndown to Bournemouth town centre • Wimborne to Bournemouth Airport and aviation park • Wimborne to Poole town centre
NR-2024-PTI-004	Dorset Metro Shuttle (Wareham to Brockenhurst)	Public Transport (Infrastructure) - PTI	Additional 1tph shuttle service between Wareham and Brockenhurst, through the delivery of reduced signalling headways and junction margins, including potential closure of Poole LX.
GCC-2024-CSV-057011	Cheltenham Spa rail capacity and station enhancements and	Mixed - MIX	Cheltenham Spa Station recognition as a rail hub and access to other regional rail hubs, with a link to Gloucestershire Cycle Spine and rail enhancements as per Network Rail's Bristol to Birmingham Rail Strategy.

	(A40) cycle access link to Gloucestershire Cycle Spine		
NR-2024-PTI-002	Salisbury Enhancements	Public Transport (Infrastructure) - PTI	Enhancements to signalling within the Salisbury area to increase capacity and resilience for services in the area. Initial proposals include reduction in signalling headways and reinstatement of Platform 1
WC-2024-RD-005	A350/A303 Two Mile Down Junction Improvements	Road - RD	Improvement of the existing A303 / A350 grade separated single carriageway junction, to incorporate widening and extension of the existing ghost island priority junction, increase stacking capacity for westbound right-turn movements and improved conspicuity of signage and junction arrangement. The existing A303 overbridge has additional width which can be used to improve visibility for mainline users and those waiting on the side road wishing to gain access to the A303.
NR-2024-PTI-003	Heart of Wessex Line Service enhancement	Public Transport (Infrastructure) - PTI	Delivery of 1 Train Per hour train service (skip-stop Chetnole and Thornford) along the Heart of Wessex Line, through the delivery of a new passing loop between Castle Cary and Yeovil Pen Mill.
GCC-2024-CSV-018	Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)	Public Transport (Infrastructure) - PTI	Creation of Strategic Interchange Hubs for onward multi-modal connectivity to the region, as part of GCC's Interchange Hub programme and support Western Gateway Rail Strategy definition of rail hubs.
GCC-2024-CSV-056	Gloucester Rail Station (Horton Road Level Crossing)	Public Transport (Infrastructure) - PTI	Capacity upgrades at Gloucester Station is necessary for the region, as the existing network cannot accommodate proposed future growth in passenger services, including MetroWest and Midlands Rail Hub delivery
NR-2024-PTS-007	Bristol - Oxford direct train service	Public Transport (Services) - PTS	Introduction of an hourly direct train service between Bristol and Oxford, 7 days a week, which will improve journey times and encourage modal shift
BCP-2024-FRT-001	Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements	Freight - FRT	To facilitate goods movements to/from the port of Poole by rail and to support expansion. The scheme will provide infrastructure to restart regular freight traffic along the Hamworthy Branch Line to Poole Port and provide a cargo/freight handling facility. In addition, the scheme will create space within the port footprint to enable an uplift in goods and passenger movements in/out of the Port (increased Rail Freight handling and a new passenger/cruise terminal). The scheme includes access improvements on the local road network to make travel to the port more sustainable and will support local plan housing and economic growth plans.
WEMCA-2024-PTI-007	Step-free access to rail stations	Public Transport (Infrastructure) - PTI	Step-free access to local rail stations, to improve passenger experience and allow for improved access to rail stations for those with mobility difficulties.
GCC-2024-TKS-01003	Ashchurch for Tewkesbury rail capacity and access enhancements & A46 active travel corridor	Mixed - MIX	Ashchurch for Tewkesbury Station rail capacity and access enhancements linked by the repurposed A46 active travel corridor based on the preferred option for the M5J9/A46 scheme comes forward. Improving rail access to/from Tewkesbury Borough, supporting delivery of the Midlands Railway Hub and an additional local stopping service through local rail enhancements, including: investigating provision of a third platform to allow more stopping services, work with Network Rail to extend the existing passing loop, identify opportunities for enhanced rail freight facilities and providing improved access to the station from the local highway.

NR-2024-PTI-001	Yeovil to Salisbury Service Improvement	Public Transport (Infrastructure) - PTI	Improvement of services between Yeovil Junction and Salisbury along the West of England Line. To be developed with focus on performance improvement opportunities for existing services, as well as opportunity to increase number of services from 1tph to 2tph. Infrastructure requirement is extension of Tisbury Loop; Eastward for additional service; Westward for performance benefits. This aligns with wider policy on improving performance and should impact/align with Peninsula Transport strategy in their region.
DC-2024-MIX-002	A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland.	Mixed - MIX	<p>A package of measures will be delivered including:</p> <ul style="list-style-type: none"> • A354 junction improvements (including Harbour junction, and Chaffeys Roundabout) to improve road safety, provide better facilities for active travel and enable bus priority • Bus priority measures along the corridor and within town centres to deliver improved reliability and shorter journey times. • Active travel/public realm/traffic management measures in Weymouth Town centre • Development of underutilised Weymouth P&R to provide a new mobility hub with dedicated park and ride services. <p>Benefits will be delivered from shorter journey times, increased reliability, and reductions in traffic entering central areas of Weymouth.</p>
WEMCA-2024-PTS-003	Rail service frequency enhancements to existing rail services	Public Transport (Services) - PTS	Additional service frequencies on existing rail lines to create a more attractive "turn up and go" frequency of service to local stations.
BCP-2024-PTI-001	All BCP rail stations to be made fully accessible	Public Transport (Infrastructure) - PTI	Progression to make all railway stations located within BCP fully accessible to published standards - both in terms of train to platform interface and station entrance to trains. There are 6 stations - from west to east, Hamworthy, Parkstone, Branksome, Pokesdown, Christchurch and Hinton Admiral, that have poor accessibility and for Poole and Bournemouth improvements are required. The schedule of improvements would be phased over a 10 year period.
NR-2024-PTI-008	Gloucester station layout improvements	Public Transport (Infrastructure) - PTI	The current layout at Gloucester station is inflexible and unsuited to current/future traffic requirements. This scheme would revise the track layout to give greater flexibility and unlock capacity for additional local and freight services.
BCP-2024-MIX-004	Christchurch Town Centre sustainable access package	Mixed - MIX	The scheme will provide sustainable access to Christchurch town centre (regional destination) by prioritising space for walking, cycling and public transport to create modal shift and reduce network pressure at strategic river crossings into the town centre. Supports Christchurch Town Centre movement strategy work, by providing mobility hubs, modal filters, bus gates, new active travel crossings, high-quality cycle facilities and re-configured roundabouts to encourage walking, cycling and public transport movements, supporting a range of journeys (work, education, leisure, tourism). Supports sustainable local, regional and national travel. Supports sustainable visitor travel and local plan housing and employment allocations.
NR-2024-PTI-012	Bristol Temple Meads Platform 0	Public Transport (Infrastructure) - PTI	Additional platform at Bristol Temple Meads which will support the introduction of new 2tph Cardiff - Bristol services, alongside an uplift in Bristol local services
BCP-2024-MIX-001	A338 to Wessex Fields, Airport and Aviation Business Park, sustainable access package scheme	Mixed - MIX	Multi modal access improvements to support the growth of Bournemouth Airport, Bournemouth Aviation Park and the Wessex Fields employment sites (including Bournemouth Hospital). Provision of enhanced sustainable transport access and connectivity to key out of town destinations by a range of sustainable modes. A package of improvements consisting of segregated cycling routes, enhanced bus routes and schedules, complemented by bus priority measures, will connect Bournemouth Station to the airport. Schemes will provide realistic and

			viable travel options for regional, national and international travel as well supporting the economic and housing growth aspirations outlined in the BCP Local Plan.
WEMCA-2024-PTI - 002	Bus corridor package in Bath	Public Transport (Infrastructure) - PTI	A series of strategic transport corridors focused on radial routes Bath and surrounding areas prioritising bus and walking and cycling measures over each corridor.
NR-2024-PTI - 010	Westerleigh Junction upgrade	Public Transport (Infrastructure) - PTI	Westerleigh Junction is a significant rail bottleneck for services through the area from all points of the compass. Upgrading the junction by providing grade separation would help free up capacity for additional local services between Gloucester and Bristol and for additional freight trains, as well as helping make train services more reliable.
	Bus corridor package in Bristol		A series of improvements along key bus routes radiating out from Bristol city centre across the wider urban area to improve opportunities for bus, walking and cycling
WEMCA-2024-PTI-004	Metrowest - Phase 1 (Portishead)	Public Transport (Infrastructure) - PTI	Commitment to delivering the Portishead Line - including new stations at Pill and Portishead - provision of one train per hour.
GCC-2024-CSV-014	Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R)	Mass Transit - MAS	The delivery of bus based Mass Rapid Transit will provide a high quality and fast public transport connection through the urban areas of Gloucester and Cheltenham connecting those major settlements to Strategic Interchange hubs (including P&R rail and bus stations) and providing interchange with Expressbus services. Deliver sustainable future growth for the CSV.
WEMCA-2024-AT-001-002-003-004	Walking and Cycling Network - West of England	Active Travel - AT	Consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network to provide a coherent and consistent network over the urban area
BCP-2024-MIX-002	Bournemouth Travel Interchange (bus/rail station) and links to town centre/seafront + Bournemouth Town Centre sustainable access package	Mixed - MIX	A sustainable transport corridor running from Bournemouth Travel Interchange (regional gateway) to Bournemouth Centre and the seafront (regional destinations), building on delivered and funded projects (BSIP bus priority corridor and Lansdowne placemaking). Supports Bournemouth Town Centre movement strategy work, by providing mobility hubs, modal filters, bus gates, new active travel crossings, high-quality cycle facilities and re-configured roundabouts to encourage walking, cycling and public transport movements from the station to town centre/sea front, supporting a range of journeys (work, education, leisure, tourism). Supports sustainable local, regional and national travel. Supports sustainable visitor travel and local plan housing and employment allocations.
NR-2024-PTI-013	Additional loops between Yate and Gloucester	Public Transport (Infrastructure) - PTI	Passing loops on this section of line will support the introduction of a 4tph local service between Bristol and Gloucester and enable freight growth. Proposal is for a new Down loop at Wickwar (116m 0264y – 119m 1452y) of 5054m length and extension of the existing Harefield Up Goods loop (94m 1628y – 99m 0638y) by relocating S&C 470m south to enable 60mph turnout (currently on a curve), or 1510m south to Standish Junction
BCP-2024-AT-001	Regional Cycle Network routes/schemes	Active Travel - AT	Development of regional Active Travel routes to connect regional gateways, major centres of population and employment between BCP and neighbouring authorities of Dorset Council and Hampshire County Council.

WEMCA-2024-PTI-009	Rail electrification - Chippenham to Bristol Temple Meads via Bath Spa	Public Transport (Infrastructure) - PTI	Overhead line electrification between Chippenham to Bristol Temple Meads through Bath Spa, completing the Great Western Mainline electrification works
WEMCA-2024-PTI-005	Metrowest Phase 2 (Henbury Line)	Public Transport (Infrastructure) - PTI	Commitment to delivering the Henbury Line to North Filton (Brabazon) and Henbury - provision of one train per hour
WEMCA-2024-PTI-011	Four-tracking Bristol Temple Meads - Parson Street	Public Transport (Infrastructure) - PTI	Four-tracking of section between Bristol Temple Meads and Parson Street, enabling reliability and capacity improvements between Bristol Temple Meads towards the wider South West of England.
NR-2024-PTI-014	Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock	Public Transport (Infrastructure) - PTI	Replacing diesel passenger trains in the Western Gateway area upon life expiry in the early 2030s will require provision of infrastructure to power new rolling stock. This is likely to involve sections of Overhead Line and potentially new DC electrification which may be used to power trains directly and/or to charge on-board batteries. The precise extent and location of required electrification cannot be confirmed but is likely to involve the most heavily-trafficked sections of the railway
WEMCA-2024-PTS - 001	Bus service frequency and rural bus service improvements through Bus Strategy	Public Transport (Services) - PTS	Implementation of bus strategy work undertaken as part of Joint Local Transport Plan, looking at enhancing bus service frequency across the urban and rural network

DC-2024-MIX-004

- **Option Name:** South East Dorset Rural Mobility Pilot
- **Proposer:** Dorset Council

Table E-2 – South East Dorset Rural Mobility Pilot

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	There are likely to be significant positive effects on population and equalities. This option seeks to address issues with rural connectivity by providing equal opportunities for accessing community services, employment and education. The increase in bus frequencies on core routes in South East Dorset are likely to benefit the population as a whole, in particular those who do not have access to a private car, such as the elderly, children and young people, and those with disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option will likely result in positive effects on human health as it aims to deliver a safe and secure transport system, improving access to services, education and employment through increased bus frequencies. Additionally, this option aims to improve and encourage active travel links which will likely have positive impacts on the population's mental and physical health and wellbeing. Indirect positive effects on human health are also likely to occur from improved air quality as public and active transport are improved and encouraged.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option is likely to result in significant positive effects upon community safety. The option aims to deliver a safe and secure transport system in rural areas. This is anticipated to directly result in significant improvements to public transport safety, and perceptions of safety, in South East Rural Dorset.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects upon the economy through its aim of delivering a safe and secure transport system, increasing connectivity across the region and providing access to better employment opportunities, especially to those travelling from rural areas. Improving and encouraging sustainable tourism is likely to support the economy and potentially attract investment opportunities.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The option seeks to address issues with rural connectivity by providing secure and safe transport systems to improve access to services and employment within rural areas within South East Dorset. This is likely to help boost the rural economy and result in significant positive effects.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option is likely to improve rural connectivity and does not aim to improve access to housing. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option covers the whole of South East Devon and is therefore located within multiple designated sites including 73 SSSI's, four SPA's, seven SAC's, two RAMSAR's and eight NNR's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Dorset National Landscape and the Cranborne Chase and West Wiltshire Downs National Landscape, as well as the New Forest National Park as it covers the whole of South East Devon. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		short-term during construction. The option has potential to reduce disturbance as a result of encouraging a modal shift away from private car use. However, increasing bus frequencies may increase noise and detract from national landscapes and the national park. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within the Dorset and East Devon Coast World Heritage Site as it covers the whole of South East Devon, multiple scheduled monuments, registered parks and gardens, listed buildings, and conservation areas, as well as within 500m of multiple other heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure. This may include improving the setting through reduced private vehicles. Additionally, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option includes improved access to heritage assets through sustainable modes, providing improved access. This is likely to be determined by individual bus service improvements that arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides a sustainable travel network within BCP and Dorset and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. The option provides a sustainable travel network within BCP and Dorset. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage as bus routes and multi-modal mobility hubs could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option is likely to result in significant positive effects on greenhouse gases. This option seeks to improve rural connectivity through improved bus, walking and cycling links. This is likely to encourage the use of more sustainable transport modes and reducing reliance on single occupancy car use, and consequently helping to reduce greenhouse gas emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through developing a network of multi-modal mobility hubs

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are anticipated for this option as it does not include upgrading existing infrastructure. However, this option does provide improved infrastructure that supports future population growth within the Western Gateway STB region. It is assumed that the development of new infrastructure will be designed to include resilience measures for future climate change, however this is likely to be determined by individual scheme design.

GCC-2024-FODCSV-000

- **Option Name:** Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol
- **Proposer:** Gloucestershire County Council

Table E-3 – Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	There are likely to be significant positive effects on population and equalities. This option aims to improve severance and connectivity to international gateways, by providing improved coach connections between Lydney and Chepstow to Bristol Airport, and Cheltenham to Bristol Airport. This is likely to benefit the population as a whole, in particular those who do not have access to a private car, such as the elderly, young people, and those with disabilities. Being able to use a coach to access Bristol Airport is also likely to benefit those on lower incomes.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Whilst there are likely to be positive effects through the provision of long distant coach connections, there are unlikely to be any significant positive effects upon human health as this option does not include any elements that support or encourage active travel.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects on the economy with the provision of long distant coach connections to Bristol Airport, providing greater business and tourist connections to the region by opening national and international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are likely to positive effects on rural economies as a result of this option. The option aims to provide long distance coach connections to Bristol Airport from more rural area such as Lydney, which is likely to provide greater access to international gateways and employment. However, this is deemed to be not significant and therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option aims to provide long distance coach connections to Bristol Airport and does not contribute to improved housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including one SSSI and two SAC's. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. Taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within 500m of the Cotswold's National Landscape and the Wye Valley National Landscape. Therefore there is potential for negative effects to arise upon these landscape assets, particularly through changes to setting from increased coach movements. While there is likely to be mitigation available to

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, and within 500m of multiple heritage assets, including listed buildings, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets through increased coach and bus movements, increasing noise. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option includes improved access between Lydney-Chepstow-Bristol / Cheltenham-Bristol, and it is anticipated that there will be heritage assets located along these routes. However, it is currently unclear if services will provide improved access to these assets.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Bristol Airport - Carboniferous Limestone groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to provide long distance coach connections to Bristol Airport and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within Bristol AQMA, and within 500m of four AQMAs (Cheltenham Borough Council, Barton Street, Chepstow, and Lydney). This option is likely to result in improvements to air quality through providing public transport improvements, encouraging the use of coaches to access Bristol Airport, reducing private car emissions.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2, as well as fluvial Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage as new public transport schemes could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option will support the model shift from the car to coach for longer distance journeys between Lydney and Bristol and Cheltenham and Bristol Airport, which is likely to reduce regional transport related carbon emissions. Therefore, resulting in significant positive effects on greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through delivering public transport schemes. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced and loss of best and most versatile land avoided. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

NR - 2024 - PTI-016

- **Option Name:** Improvement of gateline capacity and customer facilities at Bournemouth station
- **Proposer:** Network Rail / South Western Railway

Table E-4 – Improvement of gateline capacity and customer facilities at Bournemouth station

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option is likely to result in positive effects for population and equalities. Improvements to Bournemouth Station will help to improve access and safety through the station for all, improving overall user experience. However, this not deemed to be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Whilst this option will likely have positive effects on human health and wellbeing by improving facilities at Bournemouth station, it is unlikely that there will be significant positive effects as this option does not include elements for active travel and therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	Significant positive effects have been identified for this option with regard to community safety. This option improves the customer facilities at Bournemouth Station, including improving customer safety. This is likely to improve accessibility and promote a safe environment, improving user safety.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This option has potential to result in effects upon the economy as a result of improving access to Bournemouth Station; therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects upon rural economies as a result of this option. The option improves the accessibility and capacity of Bournemouth station and does not contribute either directly or indirectly to rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant effects upon housing growth as a result of this option. The option improves the accessibility and capacity of Bournemouth station and does not contribute either directly or indirectly to improved housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	Uncertain effects have been identified for this proposal at this stage. Although not located within 500m of any designated sites, there is no sufficient information on the proposed works to rule out potential adverse effects on local species and habitats, which could be significant should there be protected species or priority habitats present.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape setting and value through station improvements. However, this is likely to be determined by the scheme design.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, altering views. However, long-term, increased rail services routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. The option improves the accessibility and capacity of Bournemouth station, and it is anticipated that there will be heritage assets located along these routes. However, it is currently unclear if services will provide improved access to these assets.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	There are unlikely to be any significant, direct effects upon the water environment as a result of this option. The option improves the accessibility and capacity of Bournemouth station and is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use, encouraging rail use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option is likely to reduce emissions from a more efficient building use and design, however this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option promotes improvements to existing station facilities at Bournemouth station, promoting the upgrading of existing infrastructure. Additionally, these improvements are likely to result in improvements to the maintenance of the existing station, supporting infrastructure for future population needs. Significant positive effects have therefore been identified.

NR-2024-PTI-011

- **Option Name:** Westbury Platform 0
- **Proposer:** Network Rail

Table E-5 – Westbury Platform 0

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The additional platform will help to improve capacity at Westbury Station which is likely to improve accessibility at the station and provide greater connectivity to London Paddington with the provision of an hourly service. This is likely to result in positive effects on population and equalities by improving access to further community services and employment opportunities. However, this is unlikely to be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	It is anticipated that the provision of an additional platform at Westbury station will have positive effects of human health and wellbeing by improving services. Negligible effects are identified as this option does not include any elements contributing to active travel.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option provides an additional platform at Westbury station which aims to support an hourly service into London Paddington and thus improve connectivity at Westbury as well. This is likely to result in significant positive effects upon the economy as this will allow an increase in capacity and therefore more passengers using the increased services for business and leisure.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Negligible effects are identified as a result of this option upon rural economies. The option includes the development of an additional platform at Westbury station, providing an hourly TransWilts train service and does not contribute either directly or indirectly to rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes the development of an additional platform at Westbury station, providing an hourly TransWilts train service. There is potential for this to indirectly support housing growth if housing development is to arise in close proximity to the rail stations serviced by this option. However, these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes the development of an additional platform at Westbury station and is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape setting and value through station improvements. However, this is likely to be determined by the scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	The option is located more than 500m and within 1km from multiple Listed Buildings and scheduled monuments. It is currently uncertain if the development of Platform 0 at Westbury will result in effects upon these assets as this is likely to be determined by individual scheme design.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets both within the Western Gateway STB region and London’s heritage assets. The scale of improved access cannot currently be determined and is likely to be determined by individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes the development of an additional platform at Westbury. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use, encouraging rail use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The implementation of an hourly service from Westbury station to London Paddington will help to encourage a modal shift to more sustainable transport, which is likely to reduce transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is located close to best and most versatile agricultural land (Grade 3). However it is not anticipated that the construction of the new platform will require any additional land take. Negligible effects have therefore been identified.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. The option includes the development of new infrastructure, within the existing Westbury railway station. However, this option does provide improved infrastructure that supports future population growth within the Western Gateway STB region. It is assumed that the

SEA Objective	Likely Significant Effects	Commentary
		development of new infrastructure will be designed to include resilience measures for future climate change, however this is likely to be determined by individual scheme design.

DC-2024-MIX-003

- **Option Name:** Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation.
- **Proposer:** Dorset Council

Table E-6 – Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation.

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on Population and Equalities. The delivery of sustainable travel improvements (active travel and bus routes) to connect South East Dorset to BCP will help to increase access to community services, employment and education opportunities. This is likely to benefit the population as a whole, in particular those who do not have access to a private car, such as the elderly, children and young people, and those with disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects as it aims to deliver active travel routes and bus corridor improvements and seeks to reduce road congestion encourage a modal shift away from personal car usage. This has the potential direct and indirect positive impacts on human health and wellbeing by increasing public transport access and improving air quality across the region.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects have been identified for this option with regard to community safety. This option is anticipated to improve the safety of a number of sustainable travel corridors, including active travel. However, the nature of this improvement is currently unknown and likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	It is anticipated that positive effects on the economy will arise through the bus corridor improvements, particularly areas of south-east Devon. However, uncertain effects have been identified for this option as it seeks to promote safe and sustainable travel options and alleviate congestion in urban areas.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are likely to positive effects on rural economies as a result of this option. The option aims to provide sustainable transport routes that will likely benefit more rural communities such as Wareham by connecting them with Poole town centre. This is likely to improve access to employment opportunities, however, this is deemed to be not significant. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option delivers sustainable travel improvements (active travel and bus route). There is potential for this to indirectly support housing growth if housing development is to arise in close proximity to the routes within this option. However, these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including four SSSI's, two SPA's, two RAMSAR's, one NNR and two SAC's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Dorset National Landscape and the Cranborne Chase and West Wiltshire Downs National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction through increased noise and vibration. The option also has

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		potential to alter views during construction through plant equipment and construction compounds. There is also potential for the option to result in land take for the development of active travel routes, altering the national landscape. However, if sensitively designed, this significant effect may be mitigated. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within the one registered park and garden, three listed buildings, and 10 conservation areas, as well as within 500m of multiple other heritage assets including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, altering views. However, long-term, these active travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region, including a number of assets within BCP and Dorset. However, the scale of improved access cannot currently be determined and is likely to be determined by individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of the sustainable transport routes that the option aims to provide is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides a sustainable travel network within BCP and Dorset. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as sustainable travel corridors could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option is likely to result in significant positive effects on greenhouse gases. This option seeks to improve connectivity through improved bus and active travel routes to Poole, Bournemouth and Bournemouth Airport. This is likely to encourage the use of more sustainable transport modes and reduce reliance on single occupancy car use, and consequently help to reduce transport related emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 2 and 3) through delivery of active travel routes and bus corridor improvements.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. The option includes the development of new infrastructure. It is assumed that the development of new infrastructure will be designed to include resilience measures for future climate change, however this is likely to be determined by individual scheme design.

NR-2024-PTI-004

- **Option Name:** Dorset Metro Shuttle (Wareham to Brockenhurst)
- **Proposer:** Network Rail - Strategic Planning

Table E-7 – Dorset Metro Shuttle (Wareham to Brockenhurst)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes one additional metro train per hour between Wareham and Brockenhurst. Whilst this option will support additional passenger numbers and improve access to community services, employment and education opportunities, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	There are unlikely to be any significant effects upon human health as this option includes one additional metro train per hour between Wareham and Brockenhurst and does not include any elements for active travel. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This option includes one additional metro train per hour between Wareham and Brockenhurst and whilst this has the potential for positive impacts on the economy through improved connectivity from rural Dorset to regional economic centres such as Bournemouth, it is uncertain if this would support economic success by opening international and regional gateways or attract invest opportunities.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes one additional metro train per hour between Wareham and Brockenhurst. Whilst this option will support additional passenger numbers and improve access from Wareham to Brockenhurst, it is not deemed significant. Therefore, negligible effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes one additional metro train per hour between Wareham and Brockenhurst. Whilst this option will support additional passenger numbers, that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's, three SPA's, two RAMSAR's and two SAC's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option includes one additional metro train per hour between Wareham and Brockenhurst and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes through increased

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		noise from additional rail services. However, this is likely to be determined by the type and speed of trains along this route.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within Burton conservation area and within 500m of multiple heritage assets, including conservation areas, listed buildings, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of the development of this infrastructure, increasing railway noise through increased services. However, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region through providing additional capacity to passenger numbers. However, the scale of improved access cannot currently be determined and is likely to be determined by individual scheme design and the stops provided by this service.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Dorset Stour and Lower Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes one additional metro train per hour between Wareham and Brockenhurst and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for air quality in relation to this option as it is located more than 500m from an AQMA. This option has potential to encourage use of public transport as a result of railway improvements. However, this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as the additional shuttle service could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The implementation of an additional metro train per hour between Wareham and Brockenhurst will help to encourage a modal shift to more sustainable transport, which is likely to reduce transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within best and most versatile agricultural land (Grade 2 and 3) however is unlikely to result in loss of this land as the option aims to deliver one additional shuttle train per hour and it is understood that will involve no new infrastructure / land take.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		

GCC-2024-CSV-057011

- **Option Name:** Cheltenham Spa rail capacity and station enhancements and (A40) cycle access link to Gloucestershire Cycle Spine
- **Proposer:** Gloucestershire County Council

Table E-8 – Cheltenham Spa rail capacity and station enhancements and (A40) cycle access link to Gloucestershire Cycle Spine

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option is likely to result in positive effects on population and equalities. Cheltenham Spa station enhancements and provision of cycle access link to the Gloucestershire Cycle Spine will help to increase access to community services, employment, education, and physical activity opportunities. This is likely to benefit the population as a whole, in particular those who do not have access to a private car. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The focus of this option includes improved connections to Cheltenham's rail services with a link to the Gloucestershire Cycle Spine. This could result in positive effects upon human health and wellbeing with improved access to transport and active cycle. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option includes improved connections to Cheltenham's rail service. This option has potential for better national rail connections, improving access to regional and national destinations and increasing freight traffic. However, uncertain effects have been identified as the scale of improved access cannot be determined.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects on rural economies as a result of this option. The option includes improved connections to Cheltenham's rail services. Whilst this is likely to improve access to employment opportunities for more rural communities, these affects are considered to be minor. Therefore, neutral effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes improved connections to Cheltenham's rail services. Whilst this option will support additional passenger numbers and improve accessibility within the STB region and neighbouring STB's, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option includes improved connections to Cheltenham's rail services. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example as a result of the scale and nature of railway enhancement.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, and within 500m of an additional conservation area. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. During operation, increased capacity of the rail line has potential to result in increased rail noise upon these assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region and neighbouring regions through providing additional accessibility. However, the scale of improved access cannot currently be determined, uncertain effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improved connections to Cheltenham’s rail services. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes. This is also likely to help reduce congestion on the highway corridors, including the M5 and A417/A419, and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

NR-2024-PTI-002

- **Option Name:** Salisbury Enhancements
- **Proposer:** Network Rail - Strategic Planning

Table E-9 – Salisbury Enhancements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes enhancements to signalling in the Salisbury area. Whilst this option will support an increase in passenger numbers and improve access to community services, employment and education opportunities, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option focuses on enhancing Salisbury station and does not include any elements for improving or encouraging active travel. Whilst this option could result in positive effects on human health through improved access to public transport with increased capacity and resilience for services, these are anticipated to be minor, positive effects. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This option focuses on enhancing Salisbury station and whilst it has the potential to increase the efficiency and reliability of freight movement, the exact scale across the Western Gateway STB region is currently uncertain.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Enhancements to signalling within the Salisbury Area will help to increase capacity and improve access to employment opportunities and local tourist attractions, however the effect is not considered to be significant. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option enhances Salisbury station. Whilst this option will support additional passenger numbers, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Cranborne Chase and West Wiltshire Downs National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of new signalling infrastructure and the reinstatement of Platform 1. The option has potential to reduce

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		disturbance on the national landscape in the long term as a result of encouraging a modal shift away from private car use, encouraging use of public transport.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within Sailsbury Conservation Area and within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, increasing railway noise. However, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region, particularly to Sailsbury’s heritage assets. However, the exact scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option enhances Sailsbury station and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	Uncertain effects have been identified for air quality in relation to this option as it is located within 500m of three AQMA’s. This option has potential to encourage use of public transport as a result of railway improvements. However, this is likely to be determined by the number of additional services provided as a result of this option.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as the enhancements to the rail network may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within best and most versatile agricultural land (Grade 2 and 3) however is unlikely to result in its loss as the option aims to improve signalling, and it is understood that it will not involve additional infrastructure requiring additional land take.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

WC-2024-RD-005

- **Option Name:** A350/A303 Two Mile Down Junction Improvements
- **Proposer:** Wiltshire Council

Table E-10 – A350/A303 Two Mile Down Junction Improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option improves the capacity of the A303/A350 junction. Whilst this option will support increase user capacity and improve accessibility and safety at this junction, and positive effects to population and equalities are likely to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option focuses on improving capacity of the A303/A350 junction of which indirect, minor positive effects may arise upon human health and wellbeing through decreased congestion and improved transport connectivity. However, there are no elements of active travel within this option. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	Significant positive effects have been identified as this option includes the updating of infrastructure to improve visibility for road users on the A303, and those waiting at the side of the road. This is likely to improve both pedestrian and road user safety, reducing accidents on this section of Western Gateway's highways network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	This option focuses on improving capacity of the A303/A350 junction of which indirect, minor positive effects may arise upon supporting the local economy through decreased congestion and improved transport connectivity, which could benefit future development. However, it is considered unlikely that this would have any significant positive impacts on supporting the region's economy. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant, direct effects upon rural economies as a result of this option. The option improves the capacity of the A303/A350 junction. Whilst this option will support additional road capacity, positive effects that may arise are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the capacity of the A303/A350 junction. Whilst this option will support additional road capacity, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves the capacity of the A303/A350 junction and is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Cranborne Chase and West Wiltshire Downs National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction through increased noise and vibration. The option also has potential to alter views during construction

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		through plant equipment and construction compounds. There is also potential for the option to result in land take for the widening of the carriageway, altering the national landscape.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of four Scheduled Monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration and alteration of the visual landscape surrounding these assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to the scheduled monuments located within 500m of the option, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Upper Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the capacity of the A303/A350 junction and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the road network of the A350/A303 to reduce congestion and increase vehicle stacking. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	Negligible effects on greenhouse gases have been identified for this option. As this is a road scheme, it is unlikely to reduce carbon emissions, however the improved junction may help to reduce congestion along the A303/A350, and consequently transport related emissions. However this is not deemed to be significant.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through widening and extending of existing road infrastructure.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects have been identified as this option requires the updating of existing infrastructure along the A303/A350, and improves the current road network to increase capacity, supporting future population growth. Additionally, it is assumed that the upgrading of these junctions will include climate resilience measures.

NR-2024-PTI-003

- **Option Name:** Heart of Wessex Line Service enhancement
- **Proposer:** Network Rail - Strategic Planning

Table E-11 – Heart of Wessex Line Service enhancement

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes one additional train per hour along the Heart of Wessex Line (Bristol to Weymouth). Whilst this option will support additional passenger numbers and improve access to community services, employment and education opportunities, in particular for those who do not have access to a car such as older people, younger people and those with long-term health conditions, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail services within Castle Cary and Yeovil Pen Mill and whilst minor, positive effects may arise on human health and wellbeing as a result of improved transport connectivity, there are no elements supporting active transport. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option aims to deliver improved transport connectivity across areas such as Weymouth and Dorchester which have high levels of transport related social exclusion (TRSE), this, in turn would improve access across key tourism areas as well as improved access to international gateway towns such as Bristol. Significant, positive effects are anticipated to arise as a result of increased business and leisure travel in key areas.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes one additional train per hour along the Heart of Wessex Line (Bristol to Weymouth). Whilst this option will support additional passenger numbers and improve access to community services and employment opportunities, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail services within Castle Cary and Yeovil Pen Mill. Whilst this option will support additional rail capacity, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of the Sparkford Wood SSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction of the new passing loop. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes through increased

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		noise from additional rail services and passing loop implementation. However, this is likely to be determined by the type and speed of trains along this route.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of two listed buildings and one registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of a new passing loop, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, increasing railway noise. However, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Somerset through improved rail services. However, the exact scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option improves rail services within Castle Cary and Yeovil Pen Mill. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for air quality in relation to this option as it is located more than 500m from an AQMA. This option has potential to encourage use of public transport as a result of railway improvements. However, this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes due to an increase in one train per hour on the Heart of Wessex line. This is also likely to help reduce congestion on the highway corridors, and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is not anticipated to result in any loss of best and most versatile agricultural land through delivery of a new passing loop between Castle Cary and Yeovil Pen Mill as it is anticipated that development will occur within existing rail land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

GCC-2024-CSV-018

- **Option Name:** Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)
- **Proposer:** Gloucestershire County Council

Table E-12 – Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Positive effects on population and equalities are likely to result from this option due to the creation of Strategic Interchange Hubs for onwards multi-modal connectivity within the Western Gateway. This is likely to improve accessibility for the whole population, in particular those without access to a private car such as younger people, older people and those with long-term health conditions or disabilities. However, the effects are deemed to not be significant and therefore negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity. Positive effects may arise from improved air quality and facilities encouraging active travel. However, at this stage, the scale of active travel infrastructure is uncertain across the region.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This project focuses on enhancing the facilities at Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations, optimising their functionality. Whilst this option could improve connectivity across the region and support tourism in key areas, at this stage, the scale of economic support is uncertain.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects on rural economies as a result of this option. The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity, which is likely to improve access to employment opportunities and attracting visitors. However, this is deemed to be minor and indirect. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option improves rail services and connectivity within the Western Gateway. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved rail facilities, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within 500m of the Barton Street AQMA. This option is likely to result in improvements to air quality through providing the strategic interchange hubs, encouraging the use of public transport and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMA , therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through creation of strategic interchange hubs.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. The scale of new infrastructure required to support the implementation of strategic interchange hubs at rail stations in Gloucestershire is currently unclear and is likely to be determined by individual scheme design.

GCC-2024-CSV-056

- **Option Name:** Gloucester Rail Station (Horton Road Level Crossing)
- **Proposer:** Gloucestershire County Council

Table E-13 – Gloucester Rail Station (Horton Road Level Crossing)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Negligible effects have been identified for population and equalities. The upgrades to Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all. However, these effects are expected to be minor.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Negligible effects are identified as a result of this option upon human health. The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant, direct effects upon the economy as a result of this option. The option improves rail capacity in Gloucester station. Positive effects that may arise from infrastructure improvements are considered to be minor, therefore negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects on rural economies as a result of this option. The improvements to the Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all. However, these effects are expected to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity in Gloucester station. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The improvements to the Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a result of increasing the capacity of Gloucester Station. However, it is currently unclear what upgrades may occur and therefore any effects on landscape are likely to be determined by the scheme design.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including two conservation areas, and a listed building. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased rail activities. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	This option aims to deliver improvements to Gloucester Rail Station and is further than 100m from a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within 500m of Barton Street AQMA. There is potential for this option to result in improvements to air quality through increasing the capacity of Gloucester Station. It is anticipated that this may result in increased rail services, encouraging a modal shift away from private car use, contributing to improved air quality within the AQMA.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	Improvements to Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all, which is likely to encourage a modal shift to more sustainable transport modes. However, these effects are expected to be minor. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified as a result of this option upon infrastructure. This option includes the upgrading of the infrastructure Gloucester station. Additionally, is potential for positive effects as this option increases the capacity of passenger services along this route.

NR-2024-PTS-007

- **Option Name:** Bristol - Oxford direct train service
- **Proposer:** Network Rail

Table E-14 – Bristol - Oxford direct train service

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option will introduce an hourly service between Bristol and Oxford, which is likely to result in significant positive effects on population and equalities. This will help to improve access between the two major cities and their associated community services, employment and education opportunities which is likely to benefit the population as a whole. Particular benefits will be felt by those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. Encouraging a modal shift towards sustainable transport could have indirect positive effects upon human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This project focuses on introducing rail services between Bristol and Oxford, providing improved access between the Western Gateway STB region and neighbouring regions. Positive effects could result from this option by delivering improved connectivity across the two major cities and support tourism and business regionally and internationally due to improved access to Bristol Airport. Therefore significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	More rural communities between Bristol and Oxford are likely to benefit from the introduction of a more direct and frequent train service. This is likely to improve connectivity across the two major cities and support tourism and business regionally and internationally. Therefore significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option introduces rail services between Bristol and Oxford, providing improves access. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	This option is closely located within 500m of a number of designated sites. There is potential for small increases in noise disturbance on these sites. However, this option is not anticipated to result in significant effects upon these receptors. Negligible effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option intersects with the Cotswolds National Landscape. There is potential for increased rail services to result in negative effects upon the setting of this national landscape, particularly as a result of increased noise. However, this is not considered to be significant.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	0	The option is located within 500m of multiple heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of increased noise from rail services. However, this is not considered to be significant.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway STB region and neighbouring regions through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option introduces rail services between Bristol and Oxford the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within Bristol AQMA and Oxford AQMA. This option is likely to result in improvements to air quality through providing public transport improvements, encouraging the use of rail services, reducing private car emissions.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is partially located within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as sections of the existing track between Bristol and Oxford are within Flood Zone 3, therefore additional services would be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The introduction of a more frequent and direct route between Bristol and Oxford will help to increase passenger capacity and therefore improve accessibility for all, which is likely to encourage a modal shift to more sustainable transport modes. However, these effects are expected to be minor. Therefore negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land as it will include an additional train service, and no associated land take.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. The option indirectly improves rail services for future population growth however this is not anticipated to result in significant positive effects.

BCP-2024-FRT-001

- **Option Name:** Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements
- **Proposer:** BCP Council Transport Policy Team

Table E-15 – Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Negligible effects on population and equalities have been identified for this option. The option will provide infrastructure to improve freight transport along the Hamworthy Branch Line to Poole Port which is likely to indirectly benefit the local population due to removing freight transport off the local road network. Further benefits will result from the introduction a new passenger/cruise terminal. However, it is deemed that these effects are not significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Negligible effects are identified as a result of this option upon human health. The option improves freight capacity within Poole. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport along the Hamworthy Branch Line to Poole Port which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However this is deemed not to be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects upon the economy as the reopening of the rail freight terminal will enable the expansion of the Port of Poole, generating employment, tourist and business opportunities on a local, regional and international scale, boosting economic growth.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves freight capacity within Poole which is unlikely to directly affect rural economies. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	The option improves freight capacity within the Western Gateway and is therefore unlikely to result in any effects upon housing growth. Negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI and one SPA. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. The option improves freight capacity within the Western Gateway and has potential for noise disturbance during operation. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within 500m of the Dorset National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of the port expansion and cargo/freight handling facility. There is also potential for negative effects to arise in the long term through increased noise and altering of the visual amenity of this landscape through port activities. While there is likely to be

SEA Objective	Likely Significant Effects	Commentary
		mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased rail freight and port activities. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	There are unlikely to be any significant effects upon access to heritage assets as a result of this option. The option focuses on freight capacity and does not contribute either directly or indirectly to improving access to heritage assets. Therefore, negligible effects have been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option focuses on improving freight capacity and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to increasing the capacity of the Port of Poole and rail freight. This has potential to result in reductions to air quality through increased freight activity. However, there is also potential for improvements as a result of encouraging rail freight, rather than road freight. Therefore, this potential improvement to air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects on greenhouse gases have been identified for this option. Introduction to new infrastructure to improve freight transport along the Hamworthy Branch Line to Poole Port will help to facilitate the movement of freight by low carbon rail rather than road offering significant potential savings in emissions. The role of the terminal could be expanded in the future to cater for non-port freight providing an alternative to the road trunk.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified as a result of this option upon infrastructure. This option includes the upgrading of existing infrastructure within the existing Port of Poole site. There are also potential for positive effects to arise as this option will an increase in both goods and passenger movements, supporting future population growth directly through passenger capacity and indirectly through supply of required goods.

WEMCA-2024-PTI-007

- **Option Name:** Step-free access to rail stations
- **Proposer:** West of England Combined Authority

Table E-16 – Step-free access to rail stations

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option introduces step-free access for all stations within the West of England Mayoral Combined Authority. This will help to improve access for all to rail services and wider services, especially those with mobility issues (older people and those with long-term health conditions and disabilities) or those who are pregnant or on maternity leave. Significant positive effects have therefore been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option could have positive effects upon human mental health and wellbeing for those with mobility difficulties. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option provides step-free access to rail stations. Providing this access will help to improve safety for users, particularly those struggling with mobility, helping to reduce trips and falls. Therefore, significant positive effects have been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides step free access to rail stations. This is therefore unlikely to result in any significant effects upon economic growth. Negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option provides step free access to rail stations. This is therefore unlikely to result in any significant effects upon rural economies. Negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	The option provides step free access to rail stations. This is therefore unlikely to result in any effects upon housing growth. Negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	This option is located within 500m of multiple designated sites including six SSSI's, one SPA and three SAC's. There is potential for negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction.. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option is located within the Costwolds National Landscape. There is potential for noise and visual negative effects upon this national landscape during construction of station upgrades to provide step free access, However as these will take place at existing stations it is not considered likely that there will be any negative effect, it is assumed that any significant negative effect will be mitigated against through the implementation of a CEMP.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	0	The option intersects multiple conservation areas and the City of Bath World Heritage Site, and is located within 500m of multiple other heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, as works will be carried out on existing infrastructure, it is not considered likely that there would be any negative effects.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	This option has potential to contribute to improving access to heritage assets within Western Gateway through making rail travel more accessible, therefore improving accessibility to a variety of designated heritage assets. There is also possibility for access to be negatively impacted during construction, though the extent of this is currently unknown, therefore uncertain effects have been assessed.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Avonmouth Mercia Mudstone and Inferior Oolite and Bridport Sands groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides step free access to rail stations the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	This option is located within the Bristol AQMA and Bath AQMA. It is currently uncertain if the development of step free access is likely to result in increased passenger numbers on rail services, encouraging a modal shift away from private car usage. Therefore, effects on air quality are currently uncertain.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both tidal and fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new development to provide step free access could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option provides step free access to rail stations. This is therefore unlikely to result in any significant effects upon greenhouse gases. Negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option could be located within best and most versatile agricultural land (Grades 1, 2 and 3), though is unlikely to result in loss of land as the option aims to upgrade existing infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified as a result of this option upon infrastructure. This option includes the upgrading of existing infrastructure across all stations within the Western Gateway area to enable access to all.

GCC-2024-TKS-01003

- **Option Name:** Ashchurch for Tewkesbury rail capacity and access enhancements & A46 active travel corridor
- **Proposer:** Gloucestershire County Council

Table E-17 – Ashchurch for Tewkesbury rail capacity and access enhancements & A46 active travel corridor

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. This is likely to improve access to community services, employment and education facilities for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. Encouraging a modal shift towards sustainable transport could have indirect positive effects upon human health through improved air quality. In addition, access enhancements linked by the repurposed A46 active travel corridor, could have positive effects upon human health by encouraging healthy lifestyles. However, improved accessibility is currently uncertain and is likely to be determined by the individual scheme design
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. This could result in positive effects to the economy through improved access to employment, tourism destinations and national and regional movements for freight movements between Bristol and Birmingham. This option also has potential to improve access to international gateways through Birmingham Airport. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. The station is in close proximity to The Cotswolds and is likely to provide a gateway for further employment and visitor opportunities. Therefore, significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and also provides improvements to the A46 active travel corridor. There is potential for this option to provide improved infrastructure for increased passenger numbers. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example as a result of the scale of railway capacity.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one Grade 2 listed building. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. During operation, increased capacity of the rail line has potential to result in increased rail noise upon this asset. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified by this option. The improved access to Tewkesbury Borough by rail will reduce pressure on the heavily constrained M5 and A46 corridors, reducing congestion and traffic volumes as well as provide opportunities for greater rail service enhancement. This option will also help to support active travel reducing reliance on private car use. Therefore, significant effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. There is potential for this option to result in the upgrade of existing infrastructure, however new infrastructure is also required. The scale of new infrastructure required is currently unclear and is likely to be determined by individual scheme design.

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		

NR-2024-PTI-001

- **Option Name:** Yeovil to Salisbury Service Improvement
- **Proposer:** Network Rail - Strategic Planning

Table E-18 – Yeovil to Salisbury Service Improvement

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The introduction of more frequent rail services between Yeovil and Salisbury are likely to improve access and connectivity for all. In particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. Encouraging a modal shift towards sustainable transport could have indirect positive effects upon human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the economy as a result of this option. The option improves rail capacity and services, so there is potential for this option to provide improved access to tourist destinations and important regional and national destinations. Positive effects that may arise are considered to be minor, therefore negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves rail capacity and services between Yeovil and Salisbury, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and services. There is potential for this option to provide improved infrastructure for increased passenger numbers. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	This option is located within multiple designated sites including one SSSI and one SAC. In addition, multiple designated sites have been identified within 500m of this option. However, based on the information available at this stage it has been assumed that this option requires minor construction works limited within the rail track boundaries. Therefore negligible effects have been identified at this stage.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	0	This option is located within the Cranborne Chase and West Wiltshire Downs National Landscape. The option has potential to reduce disturbance as a result of encouraging a modal shift away from private car use, encouraging use of

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		public transport between Yeovil to Salisbury. However, these effects are not considered to be significant. Negligible effects have therefore been identified.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	0	The option is located within 500m of multiple heritage assets, including three conservation areas, multiple listed buildings, one scheduled monument and one registered park and garden. Long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. However, this is not considered to be significant and negligible effects have been identified.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by additional services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Nadder Trib (Swallowcliffe) surface water waterbody that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the rail network. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure and services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The introduction of more frequent rail services between Yeovil and Salisbury is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is located in close proximity to best and most versatile agricultural land (Grade 3). However, it is not anticipated that the option will result in additional land take associated with the additional infrastructure requirements, as it is assumed that development will occur within the existing rail track land .
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. The increase in services proposed within this option will support a localised population increase, however this is not anticipated to be significant.

DC-2024-MIX-002

- **Option Name:** A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland.
- **Proposer:** Dorset Council

Table E-19 – A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland.

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on population and equalities. The option includes both active and public travel improvements along the A354 corridor, active travel and public realm improvements to Weymouth Town centre, and improvements to the Weymouth park and ride. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects upon human health and wellbeing as it seeks to improve road safety, provide improved facilities for active travel and improve public transport services, including bus priority measures.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option is likely to result in significant positive effects upon community safety. The option improves road safety at the A345 as well as improving the public realm of Weymouth. Improving the public realm is likely to result in improved perceptions of safety. Improving the public realm is likely to also result in improved lighting and reduced likelihood of crime. It is also assumed that active travel measures will include lighting to improve safety on these routes. Additionally, road safety improvements is likely to reduce collisions on the A345. This is anticipated to directly result in significant positive effects.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves road infrastructure, active travel, and bus infrastructure. There is potential for positive impacts upon the economy through improved connectivity to the Major Roads Network, encouraging better access for businesses and tourists. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves active and public travel services between Weymouth, Portland and Dorchester, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves road infrastructure, active travel, and bus infrastructure. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including five SSSI's, one SPA, one RAMSAR and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Dorset National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction through increased noise and vibration. The option also has potential to alter views during construction through plant equipment and construction compounds. There is also potential for the option to result in land take for the development of the park and ride, as well as junction improvements, altering the national landscape. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within the Dorset and East Devon Coast World Heritage Site, six conservation areas, and 11 listed buildings, as well as within 500m of multiple other heritage assets including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, altering views. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, such as the Dorset and East Devon Coast World Heritage Site, through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the bus services provided within the option.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the West Dorset Stream Groundwater Body and Upper Frome and Piddle groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves road infrastructure, active travel, and bus infrastructure and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the road and sustainable transport networks, including active travel. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant. Additionally, improving the A354 junction may reduce congestion and improve air quality. However, this may also encourage private car use in this area, reducing air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure and services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified for greenhouse gases for this option. The improved active and public travel services between Weymouth, Portland and Dorchester will help reduce congestion on the local road network and traffic volumes as well as provide opportunities for reducing reliance on private car use, consequently reducing transport related greenhouse gas emissions.

SEA Objective	Likely Significant Effects	Commentary
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with additional infrastructure and a new mobility hub.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for infrastructure as a result of this option. This option includes the upgrading of existing road and pedestrian infrastructure. Public realm improvements and active travel measures will also improve the maintenance of the existing network. It is assumed that improvements will also include climate resilience measures such as Sustainable Drainage Systems (SuDS). The measures proposed within this option also improve both the road and pedestrian capacity of the transport network within Dorchester, Weymouth and Portland.

WEMCA-2024-PTS-003

- **Option Name:** Rail service frequency enhancements to existing rail services
- **Proposer:** West of England Combined Authority

Table E-20 – Rail service frequency enhancements to existing rail services

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Increase in rail frequency to existing rail services within the Western Gateway will help to improve passenger capacity and access to community services, employment and educational facilities, which will benefit the whole local population. In particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, it is anticipated that these effects will be minor. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	An increase in rail frequency to existing rail services within the Western Gateway will improve access to all areas to employment opportunities and tourist attractions, which would likely have positive impacts on human mental health and wellbeing. However, negligible effects are identified as a result of this option as the effects are considered to be minor and the option does not include any elements that are likely to contribute to active travel and encourage healthy lifestyles.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	An increase in rail frequency to existing rail services within the Western Gateway will improve access to areas to employment opportunities and tourist attractions, resulting in positive impacts upon the economy in local areas. However, it is anticipated that these effects will be minor. Therefore, negligible effects on the economy have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	An increase in rail frequency to existing rail services within the Western Gateway will improve access to all areas to employment opportunities and tourist attractions. However, it is anticipated that these effects will be minor. Therefore, negligible effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail service frequency within the Western Gateway local stations. There is potential for this option to provide improved connectivity and capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	This option is located within multiple designated sites including seven SSSI's, one SPA's, two RAMSAR's, three SAC's and one NNR. In addition, multiple designated sites have been identified within 500m of this option. However, there would likely be no negative impacts, as the option will only provide additional services on existing rail lines and therefore would require no additional land take.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option is located within the Costwolds National Landscape. There is potential for increased noise from additional rail services, though there would likely be no negative impacts, as the option will only provide additional services on existing lines.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects multiple conservation areas and the City of Bath World Heritage Site, as well as a number of registered parks and gardens, conservation areas, scheduled monuments, and listed buildings, and is located within 500m of multiple other heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of noise and vibration from increased rail services, however, there would likely be no negative impacts, as the option will only provide additional services on existing rail lines that are already subject to disturbance and no additional land take would be required.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves rail service frequency within the Western Gateway local stations and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within Bristol AQMA and Bath AQMA, and within 500m of three AQMAs (Bradford-on-Avon, Barton Street, and Painswick Road). This option is likely to result in improvements to air quality through providing public transport improvements, encouraging the use of rail services and a modal shift away from private cars, reducing private car emissions.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as additional services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The introduction of more frequent rail services between existing rail services is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be situated within Best and Most versatile agricultural land (grades 1, 2 and 3) though there would likely be no negative impacts, as the option will only provide additional services on existing rail lines and therefore would require no additional land take.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network, nor does it directly support population growth.

BCP-2024-PTI-001

- **Option Name:** All BCP rail stations to be made fully accessible
- **Proposer:** BCP Council Transport Policy Team

Table E-21 – All BCP rail stations to be made fully accessible

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to make all BCP station fully accessible. This will help to improve access for all, especially those with mobility issues (older people and those with long-term health conditions and disabilities) or those who are pregnant or on maternity leave, providing improved access to rail services and the wider region, as well as access to services. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Making six stations within BCP fully accessible will improve access to all areas to employment opportunities and tourist attractions, which would likely have positive impacts on the mental health and wellbeing of those with accessibility difficulties. However, negligible effects are identified as a result of this option as the effects are considered to be minor and the option does not include any elements that are likely to contribute to active travel and encourage healthy lifestyles.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	This option improves accessibility for all stations within BCP. Providing this access will help to improve safety for users, particularly those struggling with mobility, helping to reduce trips and falls. This is anticipated to result in an indirect positive effect. However, due to the locality of these improvements, this effect is not considered to be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves accessibility for all stations within BCP. Whilst this may result in positive effects in local areas, the effects are considered minor. This is therefore unlikely to result in any significant effects upon the greater economy. Negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves accessibility for all stations within BCP. This is therefore unlikely to result in any significant effects upon rural economies. Negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	The option improves accessibility within all BCP rail stations. This is therefore unlikely to result in any effects upon housing growth. Negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	This option is located within 500m of multiple designated sites including four SSSI's, three SAC's, three SPA's, one RAMSAR and one SAC. There is potential for negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option improves accessibility for all stations within BCP and is therefore unlikely to result in any significant negative effects upon biodiversity. However, there is potential for disturbance during construction and potential for protected species to be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option is located within 500m of the New Forest National Park. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction works. However, this option does not include upgrades outside of the stations' footprints, and is therefore not anticipated to

SEA Objective	Likely Significant Effects	Commentary
		result in significant negative effects upon this landscape. However, there is potential for disturbance during construction. These effects are considered to be short term and therefore negligible effects have been identified.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, as well as within 500m of multiple heritage assets, including conservation areas, scheduled monument, and listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors..
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	There are unlikely to be any significant effects upon access to heritage assets as a result of this option. The option provides improved accessibility within BCP’s rail stations and does not contribute either directly or indirectly to improving access to heritage assets. Therefore, negligible effects have been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle and Lower Dorset Stour and Lower Hampshire Avon groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improved accessibility within BCP’s rail stations and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. Additionally, this option makes all stations within BCP fully accessible and does not directly or indirectly contribute to improving air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option improves accessibility within all BCP rail stations. This is therefore unlikely to result in any significant effects upon greenhouse gases. Negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option best and most versatile agricultural land (Grades 2 and 3) through accessibility improvements to all railway stations, though it is unlikely to result in loss of land as works will largely be carried out on existing developments.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network, nor does it support population growth.

NR-2024-PTI-008

- **Option Name:** Gloucester station layout improvements
- **Proposer:** Network Rail

Table E-22 – Gloucester station layout improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access for all to local community facilities, employment and educational facilities. However, this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access to public transport, resulting in positive effects upon human mental health and wellbeing. There are potential indirect positive effects through improved air quality as a result of a modal shift to public transport. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport within Gloucester station which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However, this is deemed to not be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access for all to employment opportunities and tourist attractions, as well as potentially unlocking freight services. However, this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Negligible effects have been identified for rural economies. The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access for all to employment opportunities and tourist attractions. However, this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity in Gloucester. There is potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes improvements to Gloucester Station layout improvements and is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape through changes to

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		the station layout, as well as landscapes through increased noise from additional rail services. However, this is likely to be determined by individual scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, multiple listed buildings, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, increasing railway noise. Additionally, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improvements to Gloucester Station layout improvements. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within 500m of Barton Street and Priory Road AQMAs. There is potential for this option to result in additional rail capacity, encouraging a modal shift away from private car use. However, there is also potential for the alteration of the station to result in increased emissions and temporary decreases in air quality during construction. These effects are likely to be determined by individual scheme design.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure within Gloucester station. This upgrade also provides increased capacity for local passenger and freight services, supporting future population growth. Significant positive effects are therefore identified.

BCP-2024-MIX-004

- **Option Name:** Christchurch Town Centre sustainable access package
- **Proposer:** BCP Council Transport Policy Team

Table E-23 – Christchurch Town Centre sustainable access package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on population and equalities. The option includes both active and public travel improvements to Christchurch Town Centre. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects on human health as it includes both active and public travel facilities and improvements to Christchurch Town Centre. This will support and encourage the use of active travel options such as walking and cycling, which would support healthy lifestyles and have positive effects on mental health and wellbeing. This could also have indirect positive effects on air quality within the area. Improved public travel facilities would have positive effects on human health through better access to work, education, leisure and tourism.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the greater economy as a result of this option. The option improves active and public travel services to Christchurch Town Centre, so there is potential for this option to provide improved access to tourist destinations and employment, benefitting the local and surrounding economies. However, these are considered to be minor and there no elements that would support access to national and international gateways. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves active and public travel services to Christchurch Town Centre., so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves active travel, and bus infrastructure. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's, two SPA's, one RAMSAR and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located approximately 80m from the New Forest National Park. There is potential for development to result in negative effects upon the setting of this National Park, particularly in the short-term during construction of new infrastructure increasing noise and changing the visual amenity of this asset. The option has potential to reduce

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		disturbance on the national landscape in the long term as a result of encouraging a modal shift away from private car use, encouraging use of public transport. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and intersects two listed buildings, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, long-term, these promotion of sustainable transport routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the bus services provided within the option.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Dorset Stour and Lower Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves active travel and bus infrastructure and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified for greenhouse gases for this option. The improved active and public travel services to Christchurch Town Centre will help reduce congestion on the local road network and traffic volumes as well as provide opportunities for reducing reliance on private car use, consequently reducing transport related greenhouse gas emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with provision of mobility hubs and active travel infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. This option requires the development of new infrastructure. However, the scale of new infrastructure required is currently unclear and is likely to be determined

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		by individual scheme design. It is assumed that the development of this option will also include climate resilience measures, however these are also determined by scheme design. This development will support increases in future population and user numbers, however the scale of this currently cannot be determined.

NR-2024-PTI-012

- **Option Name:** Bristol Temple Meads Platform 0
- **Proposer:** Network Rail

Table E-24 – Bristol Temple Meads Platform 0

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to improve capacity and access to/from Bristol Temple Meads Station due to the introduction of a new platform and more frequent services between Bristol and Cardiff. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The introduction of a new platform and more frequent services between Bristol and Cardiff will improve passenger capacity and access to and from Bristol Temple Meads station. This is will likely result in positive effects upon human mental health and wellbeing as access to work, education, leisure and tourism is improved. However, these are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the greater economy as a result of this option. This option increases rail services to/from Bristol Temple Meads to Cardiff as well as local services, so there is potential for the provision of improved access to tourist destinations, education and employment. However, these are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option increase rail services to/from Bristol Temple Meads to Cardiff as well as local services, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the frequency of services between Bristol Temple Meads and Cardiff Central. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region if housing development occurs in close proximity to stations serviced by these routes. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes the development of an additional platform at Bristol Temple Meads and is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape during the construction stage of railway enhancements. However, this is likely to be determined by the design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects multiple conservation areas and listed buildings, and is located within 500m of multiple other heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving accessibility to the Bristol Temple Meads listed building, and connectivity to heritage assets such as Bath’s UNESCO world heritage site through sustainable transport modes. However, this service does not provide direct access to this site.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes the development of an additional platform at Bristol Temple Meads station. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within the Bristol AQMA. However it is currently uncertain if this option would result in improvements to air quality as the option focuses on providing a new platform at Bristol Temple Meads. Effects on air quality are likely to be determined by any changes to services as a result of this upgrade.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure and additional services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improvements to Bristol Temple Meads to improve capacity for additional services. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained	?	Uncertain effects are identified as a result of this option upon infrastructure. This option requires the development of a new platform within Bristol Temple Meads, however it is currently unclear if any additional new infrastructure will be

SEA Objective	Likely Significant Effects	Commentary
and resilient to future climate risks and support future population growth.		required to support additional services. This development will support increases in future population and user numbers, however the scale of this currently cannot be determined.

BCP-2024-MIX-001

- **Option Name:** A338 to Wessex Fields, Airport and Aviation Business Park, sustainable access package scheme
- **Proposer:** BCP Council Transport Policy Team

Table E-25 – A338 to Wessex Fields, Airport and Aviation Business Park, sustainable access package scheme

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on population and equalities. The option includes both active and public travel improvements around the Bournemouth Airport, Aviation Park and the Wessex Field area. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Being able to use public transport to access Bournemouth Airport is also likely to benefit those on lower incomes.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects on human health as it includes both active and public travel improvements around the Bournemouth Airport, Aviation Park and the Wessex Field area. The segregated cycling routes and enhanced bus services will help encourage healthy lifestyles and contribute to a modal shift away from car usage. This option also has the potential to result in indirect positive effects upon human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects on the economy. The option provides supporting infrastructure for Bournemouth Airport, Aviation Business Park, and employment sites. Greater access between Bournemouth Airport and Bournemouth Station also provides greater connectivity to regional and international gateways and identified TRSE areas. Therefore significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are likely to positive effects on rural economies as a result of this option. The option provides supporting infrastructure for Bournemouth Airport, Aviation Business Park, and employment sites. Greater access between Bournemouth Airport and Bournemouth Station also provides greater connectivity to international gateways and employment. However, this is deemed to be not significant and therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides supporting infrastructure for Bournemouth Airport, Aviation Business Park, and employment sites. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including three SSSI's, one SPA, one RAMSAR and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example within the new cycle routes proposed within this option.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within seven conservation areas, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, long-term, these promotion of sustainable transport routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and ground water waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option requires the development of new infrastructure and the scale of this is currently unknown and is likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as access improvements could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified for greenhouse gases for this option. The improved active and public travel services around the Bournemouth Airport, Aviation Park and the Wessex Field area will help reduce congestion on the local road network and traffic volumes as well as provide opportunities for reducing reliance on private car use, consequently reducing transport related greenhouse gas emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with multi modal access improvements, and provision of enhanced sustainable transport access and connectivity.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. This option requires the development of new infrastructure, however the scale of this is currently unknown. It is assumed that any new development will include climate resilience measures however this is likely to be determined by individual scheme design.

WEMCA-2024-PTI – 002

- **Option Name:** Bus corridor package in Bath
- **Proposer:** West of England Combined Authority

Table E-26 – Bus corridor package in Bath

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to improve active and public transport along the Bath corridor. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option focuses on public transport corridors around Bath and the surrounding areas which will prioritise bus, walking and cycling measures in each corridor. This will help to improve access for all and encourage healthier lifestyles, resulting in significant positive effects upon human health and wellbeing. Encouraging alternatives to car travel would have indirect positive effects on human health through improved air quality.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects are identified as a result of this option upon community safety. There is potential that improvements to the bus network may result in indirect improvements to feelings of safety on buses and active travel modes in Bath. However, this is likely to be determined by individual scheme design that may arise from this option.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the economy as a result of this option. The option improves active and public transport along the Bath corridor, so there is potential for this option to provide improved access to tourist destinations and employment, which could benefit local economies. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves active and public transport along the Bath corridor, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to the active travel and bus networks. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including six SSSI's and one SAC. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Costwolds National Landscape. There is the potential that construction of these active travel routes may result in short-term negative effects upon the setting these national landscapes through increased noise and changes to visual amenity as a result of construction equipment. While there is likely to be mitigation

SEA Objective	Likely Significant Effects	Commentary
		available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects a number of heritage assets, including conservation areas, listed buildings, registered parks and gardens, City of Bath World Heritage Site, and scheduled monuments, as well as being located within 500m of multiple additional heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved active travel routes, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly Bath’s UNESCO World Heritage Site, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of improved network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Bath Oolite and Inferior Oolite and Bridport Sands groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves active and public transport along the Bath corridor and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within four AQMAs (Bath, Bristol, Farrington Gurney, and Temple Cloud). This option is likely to result in improvements to air quality through providing the improvements to the walking and cycling network, encouraging the use of public and active travel and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMAs, therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new transport corridors could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improve active and public transport along the Bath corridor. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with delivery of strategic transport corridors.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any new infrastructure will be required to support the strategic transport corridors proposed within this option. This development

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		will support increases in future population and bus user numbers, however the scale of this currently cannot be determined.

NR-2024-PTI – 010

- **Option Name:** Westerleigh Junction upgrade
- **Proposer:** Network Rail

Table E-27 – Westerleigh Junction upgrade

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport within Westerleigh which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However this is deemed not be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol, so there is potential for this option to provide improved access to tourist destinations and employment and also free up capacity for additional freight trains. However, these are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within the Winterbourne Railway Cutting SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of railway enhancements. However, this is likely to be determined by the scale and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, namely listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to improve capacity of Westerleigh Junction and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the rail network capacity. This has potential to indirectly result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located adjacent to Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, depending on the location of works, as upgrades to the rail network could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure within the Western Gateway to allow an increase in capacity for rail services, supporting increased passenger numbers, as well as freight service capacity. Significant positive effects have been identified as a result of this improved capacity and upgrade of existing constrained infrastructure.

WEMCA-2024-PTI-001

- **Option Name:** Bus Corridor Package in Bristol
- **Proposer:** West of England Combined Authority

Table E-28 – Bus Corridor Package in Bristol

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to improve active and public transport along the Bristol corridor. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option will help to improve active travel and public transport along the Bristol corridor. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to public transport could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects are identified as a result of this option upon community safety. There is potential that improvements to the bus network may result in indirect improvements to feelings of safety on buses in Bristol. However, this is likely to be determined by individual scheme design that may arise from this option.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option improves active and public transport along the Bristol corridor, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option would improve active and public transport along the Bristol corridor, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to bus routes around Bristol city centre, as well as active travel routes. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of new walking and cycling routes. However, this is likely to be determined by the scale of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects a number of heritage assets, including conservation areas, listed buildings, registered parks and gardens, and scheduled monuments, as well as being located within 500m of multiple additional heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved active travel routes, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of improved network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Portishead Mercia Mudstone and Avonmouth Mercia Mudstone groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to bus routes around Bristol city centre, as well as active travel routes and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within two AQMAs (Staple Hill and Bristol). This option is likely to result in improvements to air quality through providing the improvements to the bus, walking and cycling network, encouraging the use of sustainable and active travel and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMAs, therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new transport corridors could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improve active and public transport along the Bristol corridor. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is located in close proximity to best and most versatile agricultural land (Grades 2 and 3). However, it is not anticipated that the delivery of strategic transport corridors for bus services will result in land take. Negligible effects have therefore been identified.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any new infrastructure will be required to support the strategic transport corridors proposed within this option. This development

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		will support increases in future population and bus user numbers, however the scale of this currently cannot be determined.

WEMCA-2024-PTI-004

- **Option Name:** Metrowest - Phase 1 (Portishead)
- **Proposer:** West of England Combined Authority

Table E-29 – Metrowest - Phase 1 (Portishead)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead and an hourly route to Bristol Temple Meads. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, this is likely to provide significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead. This could result in positive effects upon human mental health and wellbeing as public transport access is improved, especially in TRSE areas. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead, so there is potential for this option to provide improved access to tourist destinations, education and employment. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead and an hourly route to Bristol Temple Meads, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and connectivity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of railway enhancements. During operation, there may also be changes to the landscape visual setting as a result of new stations. However, this is likely to be determined by the location and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects with one park and garden, one grade 1 listed building, and one conservation area, and is located within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. There is also potential for long-term effects to heritage assets through the development of new railway lines and stations, resulting in the potential for loss of assets that may be intersected, as well as altering the setting of assets in close proximity. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Portishead Mercia Mudstone groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to deliver the Portishead rail line, with new stations at Pill and Portishead and an hourly route to Bristol Temple Meads and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within the Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality within the AQMA. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new rail infrastructure and services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Uncertain effects have been identified as a result of this option on greenhouse gases. It is anticipated that this option will require the development of new infrastructure to support the Portishead Line and new stations, though the scale of this is currently uncertain, which may result in higher levels of embodied carbon. The option will also help to promote a modal shift to more sustainable transport modes, therefore reducing transport related emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with delivery of the new and associated rail stations.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. It is anticipated that this option will require the development of new infrastructure to support the Portishead Line and new stations. It is assumed that new development will include climate resilience measures, however the scale and nature of this is likely to be determined by individual scheme design. This development will support increases in future population, however the scale of this currently cannot be determined.

GCC-2024-CSV-014

- **Option Name:** Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R)
- **Proposer:** Gloucestershire County Council

Table E-30 – Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to deliver a bus-based Mass Rapid Transit which will provide public transport connection through the urban areas of Gloucester and Cheltenham. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option aims to deliver a Mass Rapid Transit & Strategic Interchange connection through areas of Gloucester and Cheltenham. This could result in positive effects upon human mental health and wellbeing as public transport access is improved, especially in TRSE areas. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option aims to deliver a Mass Rapid Transit & Strategic Interchange connection through areas of Gloucester and Cheltenham., so there is potential for this option to provide improved access to tourist, leisure and employment destinations. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to deliver a bus-based Mass Rapid Transit which will provide public transport connection through the urban areas of Gloucester and Cheltenham, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves mass transit bus services within Gloucester and Cheltenham but is unlikely to result in any direct, significant benefits upon housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including nine SSSI's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Costwolds National Landscape. There is also potential for increased noise as a result of mass rapid transit connections, resulting in degradation of the setting of this asset. However, this may also contribute to reducing road noise from private vehicles in the long-term.. While there is likely to be mitigation available to reduce

SEA Objective	Likely Significant Effects	Commentary
		the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within a number of scheduled monuments, listed buildings, conservation areas, and registered parks and gardens. There is potential for this option to result in disturbance to the setting of these heritage assets as a result of the increased bus services within close proximity to these assets, increasing noise. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to local heritage assets within Cheltenham and Gloucester through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of bus service connections.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves mass transit bus services within Gloucester and Cheltenham and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within four AQMAs (Cheltenham Borough Council, Priory Road, Barton Street, and Painswick Road), as well as within 500m from Birdlip AQMA. The option could help to address existing poor air quality by improving accessibility to sustainable transport modes, particularly buses, encouraging a modal shift away from private car use and reducing reliance on private vehicles. Significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new bus infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to deliver a bus-based Mass Rapid Transit which will provide public transport connection through the urban areas of Gloucester and Cheltenham This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with infrastructure required for the bus based Mass Rapid Transit.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. This option does not require the implementation of additional physical infrastructure, nor does it upgrade existing infrastructure. However, this option will support the increase in population of Western Gateway, providing additional services to support increasing passenger numbers. This increase is however not anticipated to result in significant effects.

WEMCA-2024-AT-001-002-003-004

- **Option Name:** Walking and Cycling Network - West of England
- **Proposer:** West of England Combined Authority

Table E-31 – Walking and Cycling Network - West of England

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to deliver a consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network. This will help to improve access and connectivity for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option focuses on improving specific gaps in the walking and cycling network across the West of England. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to an active travel network could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	This option includes the development of walking and cycling projects across the West of England to tackle gaps in the walking and cycling network, providing a consistent network. It is anticipated that this will also include measures to improve physical safety, design our crime and reduce fear of crime along active travel routes through measures such as lighting. However, these measures are currently unclear and likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option focuses on improving specific gaps in the walking and cycling network across the West of England., so there is potential for this option to provide improved access to tourist destinations. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to deliver a consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, as details of this option are currently unknown, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to the active travel network. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including eight SSSI's, one SPA, one RAMSAR, one NNR and two SAC's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. There is also the potential for disturbance through increased levels of recreation in the long term. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Costwolds National Landscape and Mendip Hills National Landscape. There is the potential that construction of these active travel routes may result in short-term negative effects upon the setting these

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		national landscapes through increased noise and changes to visual amenity as a result of construction equipment. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects a number of heritage assets, including conservation areas, listed buildings, registered parks and gardens, City of Bath World Heritage Site, and scheduled monuments, as well as being located within 500m of multiple additional heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved active travel routes, as a result of noise and vibration.. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway particularly the world heritage site of the City of Bath, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of improved network connectivity.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to the active travel network the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within four AQMAs (Bath, Kingswood – Warmley, Staple Hill, and Bristol). This option is likely to result in improvements to air quality through providing the improvements to the walking and cycling network, encouraging the use of active travel and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMAs, therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new walking and cycling infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option aims to deliver a consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network. This will help to significantly promote the modal shift to more sustainable transport modes across the West of England region, and consequently reduce transport related emissions. Therefore, significant positive effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with construction of new walking and cycling infrastructure.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. It is anticipated that this option will require the development of new infrastructure to develop the active travel network. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is also unclear whether this option will include the upgrading of existing active travel routes that no longer meet design standards. It is assumed that new development will include climate resilience measures, however the scale and nature of this is likely to be determined by individual scheme design.

BCP-2024-MIX-002

- **Option Name:** Bournemouth Travel Interchange (bus/rail station) and links to town centre/seafront + Bournemouth Town Centre sustainable access package
- **Proposer:** BCP Council Transport Policy Team

Table E-32 – Bournemouth Travel Interchange (bus/rail station) and links to town centre/seafront + Bournemouth Town Centre sustainable access package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option aims to deliver the Bournemouth Travel Interchange that will provide sustainable transport links to the town centre and the seafront. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option improves active travel and public transport within Bournemouth. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to public transport could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves active travel and public transport within Bournemouth, so there is potential for this option to provide improved access to tourist, education and employment destinations through local, regional and national travel. There is also potential for positive effects to arise through land use benefits as part of the corridor. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to deliver the Bournemouth Travel Interchange that will provide sustainable transport links to the town centre and the seafront. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves sustainable transport within Bournemouth, but is unlikely to result in any direct, significant benefits upon housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including two SSSI's, two SPA's, one RAMSAR and one SAC. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example within the new active travel facilities.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and one registered park and garden, as well as within 500m of multiple other heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, in particular changes to lighting. However, long-term, these active travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to local heritage assets within Cheltenham and Gloucester through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the connectivity of services provided.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle and Lower Dorset Stour and Lower Hampshire Avon groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, The option aims to deliver the Bournemouth Travel Interchange and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new sustainable transport infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to deliver the Bournemouth Travel Interchange that will provide sustainable transport links to the town centre and the seafront. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is anticipated that this option will require both the upgrading of existing infrastructure and the development of new infrastructure. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		assumed that new development will include climate resilience measures. This option is also likely to result in increased capacity of passenger and user numbers. However the scale and nature of improvements to both climate resilience and future population support is likely to be determined by individual scheme design.

NR-2024-PTI-013

- **Option Name:** Additional loops between Yate and Gloucester
- **Proposer:** Network Rail

Table E-33 – Additional loops between Yate and Gloucester

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option aims to improve rail capacity between Yate and Gloucester through the development of additional loops. This is likely to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail capacity between Yate and Gloucester. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport between Yate and Gloucester which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However this is deemed not be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option improves rail capacity between Yate and Gloucester. Positive effects on the economy could arise from freight growth through additional services between the South West and the Midlands. However, at this time, it is uncertain if this would improve access to international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to improve rail capacity between Yate and Gloucester through the development of additional loops. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, as details of this option are currently unknown, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option aims to improve rail capacity between Yate and Gloucester through the development of additional loops and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage of railway enhancements. However, this is likely to be determined by the scale of development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, namely listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to improve rail capacity between Yate and Gloucester through the development of additional loops and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the rail network capacity. This has potential to indirectly result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	Depending on the location of works, the option could be located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new transport infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to improve rail capacity between Yate and Gloucester through the development of additional loops. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	Depending on the location of works, the option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with construction of new passing loops and extension of existing loops.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure within the Western Gateway to allow an increase in capacity for rail services, supporting increased passenger numbers, as well as freight service capacity. Significant positive effects have been identified as a result of this improved capacity and upgrade of existing constrained infrastructure.

BCP-2024-AT-001

- **Option Name:** Regional Cycle Network routes/schemes
- **Proposer:** BCP Council

Table E-34 – Regional Cycle Network routes/schemes

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to deliver regional active travel routes across BCP, Dorset and Hampshire. This will help to improve access and connectivity for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option focuses on the development of regional active travel routes. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to active travel options could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option focuses on the development of regional active travel routes, so there is potential for this option to provide improved access to tourist and employment destinations. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to deliver regional active travel routes across BCP, Dorset and Hampshire. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, as details of this option are currently unknown, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to the active travel network. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including 10 SSSI's, four SPA's, three RAMSAR's and one NNR. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Dorset National Landscape, as well as approximately 95m from the Cranborne Chase and West Wiltshire Downs National Landscape, and 760m from the New Forest National Park. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of new active travel routes. There is also potential for negative effects to arise as a result of lighting on

SEA Objective	Likely Significant Effects	Commentary
		routes, altering the visual amenity of these landscapes. However, it is assumed that lighting will be designed within appropriate lighting standards and any significant effect mitigated against in design. The option has potential to reduce disturbance on the national landscapes in the long term as a result of encouraging a modal shift away from private car use, encouraging use of active travel, reducing noise and degradation of these landscapes.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and in close proximity to listed buildings, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, in particular changes to lighting. However, long-term, these active travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and connectivity of the new routes to heritage assets.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to deliver regional active travel routes across BCP, Dorset and Hampshire and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the active travel network. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new active travel routes could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option aims to deliver regional active travel routes across BCP, Dorset and Hampshire. This will help to significantly promote the modal shift to more sustainable transport modes across the region, and consequently reduce transport related emissions. Therefore, significant positive effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. This option will require the development of new infrastructure to develop the active travel network. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is assumed that new development will include climate resilience measures. This option is also likely to result in increased capacity of users on active travel routes. However the scale and nature of improvements to both climate resilience and future population support is likely to be determined by individual scheme design.

WEMCA-2024-PTI-009

- **Option Name:** Rail electrification - Chippenham to Bristol Temple Meads via Bath Spa
- **Proposer:** West of England Combined Authority

Table E-35 – Rail electrification - Chippenham to Bristol Temple Meads via Bath Spa

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Rail electrification between Chippenham and Bristol Temple Meads is unlikely to result in significant effects on population and equalities. However, it will likely improve overall passenger experience due to providing a more sustainable service.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides the electrification of the rail line between Chippenham and Bristol Temple meads. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides the electrification of the rail line between Chippenham and Bristol Temple meads. There is potential for indirect, positive effects on the wider area. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any effects upon rural economies as a result of this option. The option provides the electrification of the rail line between Chippenham and Bristol Temple meads, therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any effects upon housing growth as a result of this option. The option provides the electrification of the rail line between Chippenham and Bristol Temple meads, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides the electrification of the rail line between Chippenham and Bristol Temple meads and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage, thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Costwolds National Landscape. This option has the potential to result in changes to the setting of the national landscape during the construction stage of electrification enhancements. However, this is likely to be determined by the scale and duration of development.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects with a number of heritage assets, including the City and Bath World Heritage Site, registered parks and gardens, listed buildings, and conservation areas, as well as being located within 500m of multiple heritage assets, including conservation areas, scheduled monuments listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	This option addresses the electrification of the rail line between Chippenham and Bristol Temple Meads and therefore is not anticipated to have any direct or indirect effects on access to heritage assets. Negligible effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Bath Oolite and Inferior Oolite and Bridport Sands groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option addresses the electrification of the rail line between Chippenham and Bristol Temple Meads and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within the Bristol AQMA and Bath AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to facilitate the transition away from diesel train stock, improving air quality. Additionally, it is also anticipated to encourage a modal shift away from private vehicles, further improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new rail infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Rail electrification between Chippenham and Bristol Temple Meads is likely to result in positive effect on greenhouse gases due to reducing carbon emissions associated with the existing train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within Best and Most versatile agricultural land (Grades 1, 2 and 3), however it is not likely to lead to it’s loss as works will be undertaken overhead, on existing infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for this option as the development of overhead line electrification will contribute to supporting the transition to renewable energy sources on the railways within the Western Gateway STB region.

WEMCA-2024-PTI-005

- **Option Name:** Metrowest Phase 2 (Henbury Line)
- **Proposer:** West of England Combined Authority

Table E-36 – Metrowest Phase 2 (Henbury Line)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The options aim to deliver the Henbury Line to North Filton. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail capacity and connectivity. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves rail capacity and connectivity, resulting in potential for this option to provide better access to employment, leisure and tourism in the surrounding areas. This could have positive effects on local economies, however, significant effects are unlikely. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to deliver the Henbury Line to North Filton. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, these effects are deemed to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and connectivity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of the Pen Park Hole SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the construction stage of railway enhancements. During operation, there may also be changes to the landscape visual

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		setting as a result of new rail infrastructure. However, this is likely to be determined by the location and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one conservation area. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. There is also potential for long-term effects to heritage assets through the development of new railway lines and stations, resulting in the potential for permanent altering the setting of the conservation area in close proximity. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option aims to deliver the Henbury Line to North Filton. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the sustainable travel network within Bristol. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as additional rail services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to deliver the Henbury Line to North Filton. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with delivery of the Henbury rail line.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	It is currently uncertain if the development of this option will require the upgrading of existing infrastructure to deliver Metrowest Phase 2, or whether new infrastructure will be required. This is likely to be determined by individual scheme design. However, there is potential for this option to result in improved rail capacity as a result of this option, supporting population growth.

WEMCA-2024-PTI-011

- **Option Name:** Four-tracking Bristol Temple Meads - Parson Street
- **Proposer:** West of England Combined Authority

Table E-37 – Four-tracking Bristol Temple Meads - Parson Street

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail capacity and connectivity. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves rail capacity and connectivity, resulting in potential for this option to provide better access to employment, leisure and tourism in the surrounding areas. This could have positive effects on local economies; however, significant effects are unlikely. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and connectivity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves rail capacity and connectivity and is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity, including species and habitats affected by construction noise. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of railway enhancements. However, this is likely to be determined by the scale and duration of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and a registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within the Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality within the AQMA. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as rail infrastructure improvements could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with four-tracking of the existing rail line.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure Bristol Temple Meads and Parson Street to allow an increase in capacity for rail services, supporting increased passenger numbers. Significant positive effects have been identified as a result of this improved capacity and upgrade of existing constrained infrastructure.

NR-2024-PTI-014

- **Option Name:** Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock
- **Proposer:** Network Rail

Table E-38 – Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option supports the replacement of diesel trains in the Western Gateway. This is unlikely to result in significant effects on population and equalities. However, it will likely improve overall passenger experience due to providing a more sustainable service.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option supports the replacement of diesel trains in the Western Gateway. This could result in positive effects upon human mental health and wellbeing as rail services are improved and indirect positive effects could arise through improved air quality. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant effects upon the economy as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any effects upon rural economies as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any effects upon housing growth as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, which has potential for minor positive effects upon biodiversity through improved air quality and reduced noise. However, there is also potential for construction to arise as a result of electrification of the line, although this is currently unclear. Therefore, uncertain effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in enhancement to local landscapes during as a result of reducing diesel powered trains, reducing noise from rail services.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	Uncertain effects have been identified for this option as it is located within 1km of heritage assets. However, there is potential for effects on these assets as a result of improving air quality and noise by removing diesel powered trains. These effects are likely to be determined by the scale of improvements to air quality and noise.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	This option addresses the transition from diesel powered trains and infrastructure improvements required and therefore is not anticipated to have any direct or indirect effects on access to heritage assets. Negligible effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option supports the replacement of diesel trains in the Western Gateway. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within multiple AQMAs and is anticipated that this will result in improvements to air quality within the AQMAs. This option is anticipated to improve air quality as a result of removing diesel train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The precise location of works is currently unknown, though will take place across the Western Gateway area. Therefore there is a possibility that works may take place within Flood Zone 3, it is considered appropriate to flag the potential for significant effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	The option supports the replacement of diesel trains in the Western Gateway. This is likely to result in positive effect on greenhouse gases due to reducing carbon emissions associated with the existing train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The precise location of works is unknown, however works will take place on existing infrastructure and therefore no loss of Best and Most versatile agricultural land is expected.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for this option as the development of infrastructure to support the replacement of diesel passenger trains will contribute to supporting the transition to renewable energy sources on the railways within the Western Gateway STB region. Additionally, this development will result in the upgrading of existing infrastructure.

WEMCA-2024-PTS – 001

- **Option Name:** Bus service frequency and rural bus service improvements through Bus Strategy
- **Proposer:** West of England Combined Authority

Table E-39 – Bus service frequency and rural bus service improvements through Bus Strategy

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The implementation of the bus strategy will help to improve bus service frequency across the urban and rural network. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves bus service frequency which could result in positive effects upon human mental health and wellbeing as bus services are improved, especially in rural networks. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves bus service frequency which could result in minor, positive effects through improved access to employment and tourism destinations. However, there are unlikely to be any significant effects upon the economy as a result of this option. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The implementation of the bus strategy will help to improve bus service frequency across the rural network. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. Therefore, significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves bus service frequency, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including nine SSSI's, four SAC's, one SPA and two RAMSAR's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, this option seeks to improve bus service frequency and rural bus services improvements and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage, thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Costwolds National Landscape and Mendips National Landscape, and is within 500m of the Wye Valley and North Wessex Downs National Landscapes. This option has the potential to result in changes to the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		setting of the national landscapes as a result of increased bus services, increasing noise and altering the setting of these landscapes.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects with a number of heritage assets, including registered parks and gardens, listed buildings, and conservation areas and scheduled monuments, as well as being located within 500m of multiple heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of noise from increased bus services. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual bus route improvements.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves bus service frequency across the rural network and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within 10 AQMAs (Kingswood-Warmley, Westbury, Chepstow, Staple Hill, Bath, Bristol, Bradford-on-Avon, Farrington Gurney, Temple Cloud, and Devizes Shanes Castle) and it is anticipated that this will result in improvements to air quality within the AQMAs. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as additional bus services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	The implementation of the bus strategy will help to improve bus service frequency across the urban and rural network. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. Therefore significant positive effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within Best and Most versatile agricultural land (Grades 1, 2 and 3), however it is not likely to lead to it’s loss as the option aims to increase the frequency of existing bus routes, that will not require any land take.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. This option provides improved public transport services to serve wider communities, supporting a growing population. This has potential to result in positive effects, however this is not considered to be significant.

Assessment of Alternative SIP Options

The SIP alternative options have been assessed below, following the same criteria and methodology used to assess the preferred options. These options have been listed by their Option ID code, with their project name and proposer also included.

The list of Alternative SIP Options can be found in **Table E-40** below.

Table E-40 – List of Alternative SIP Options

Project Code	Project name	Type of proposal	Project Description
BCP-2024-MIX-003	Poole Town Centre sustainable access package + Poole Travel interchange	Mixed - MIX	An ambitious sustainable access package to transform Poole Town centre (regional destination) with the creation of new liveable neighbourhoods, re-development/relocation of the bus station, re-configuration of several roundabouts, improved wayfinding, removal of subways, bus gates and modal filters. The full scope of the project involves removal of the Poole high street rail level crossing to support the Dorset Metro proposal. Includes a plan to relocate Poole railway Station (regional gateway) to support town centre redevelopment, to unlock land use changes required. Supports sustainable local, regional and national travel. Supports sustainable visitor travel and local plan housing and employment allocations.
BCP-2024-MIX-005	A31 Capacity and safety improvements package	Mixed - MIX	Capacity and safety improvements for vehicular traffic and walking and cycling and public transport at strategic junctions and sections along A31, including continuous flyovers at junctions, bypass, signalised/widening access at junctions, roundabout modifications, upgrading of the sections to typically dual 2 lane all-purpose road, grade separation, upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links, modal filters, speed restrictions, mobility hubs, bus gates, to support the sustainable housing and employment site developments, such as Oakley development sites, and local and regional economic growth and connectivity in BCP via A31.
GCC-2024-CSV-001	M5 J10 (incl. new link road & A4019 widening)	Other - OTH	M5 J10 including new Link Road and widening of the A4019 will enable Cheltenham Garden Community and Technology Innovation Zone housing (7,000) and employment growth in national cyber security.
GCC-2024-TKS-001	M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor	Other - OTH	M5J9 A46 (Ashchurch) Transport Scheme addresses capacity constraints for strategic traffic and the consequential significant constraint on the Trans-Midland Trade Corridor, significant strategic housing and employment growth at junction 9 and along the corridor of the A46 from Teddington Hands. The Strategic Outline Business Case is currently with DfT for assessment. Delivering significant housing & employment (11,083 jobs) growth planned for Tewkesbury district, which supports the Tewkesbury Garden Communities (10,000 dwellings), placing further pressure on the M5J9/A46 corridor.
GCC-2024-CSV-013020	M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine	Mixed - MIX	M5 J12 capacity and safety improvements and the link to the Gloucestershire Cycle Spine will enable housing development in line the 5yr housing supply and economic growth to be delivered by the Stroud Local Plan and future development in South Gloucestershire as noted by the Inspector at SLP EiP for M5 J12 & J14.

NR-2024-PTI-009	Gloucester area re-signalling - enhanced renewal	Public Transport (Infrastructure) - PTI	Signalling in the Gloucester area is due to be replaced in the next 10 years. There is an opportunity to use this to efficiently provide signalling enhancements, such as headway improvements, which will unlock improved capacity and additional train services.
	A417 Missing Link	Road - RD	A landscape-led highways scheme that will deliver a safe and resilient free-flowing road while conserving and enhancing the special character of the Cotswolds Area of Outstanding Natural Beauty. Our scheme will improve the connection between two dual carriageway sections of the A417 at Brockworth and Cowley.
	Potential small scheme: A36 Beckington Roundabouts	Road - RD	Proposed package of small-scale improvements (likely less than £30M)
	Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)	Road - RD	Proposed package of small-scale improvements (likely less than £30M)
	Potential small scheme: A35 Dorchester Roundabouts	Road - RD	Proposed package of small-scale improvements (likely less than £30M)
	Strategic Renewal - M32 Eastville viaduct	Road - RD	Refurbishment of the 15 structures comprising the M32 Eastville viaduct at J2
	Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct	Road - RD	Refurbishment of 8 bridges, a culvert and maintenance of other assets in the locality between M5 J20 (Clevedon) and Portishead.
NSC-2024-RD-001	A38 Major Road Network (MRN) scheme package	Road - RD	Capacity improvements, bus prioritisation and active travel provision at key locations along route. Improved access to Bristol Airport and route journey time reliability.
WEMCA-2024-TI-001	Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter	Transport hub or interchange - TI	Improvements to Bristol Temple Meads station, as well as improved interchange opportunities, and improvements to passenger experience and overcrowding.
WEMCA-2024-PTI-008	Rail electrification - Filton Bank (between Bristol Parkway / Patchway to	Public Transport (Infrastructure) - PTI	Overhead line electrification between Bristol Parkway and Patchway to Bristol Temple Meads, allowing continuous rail electrification between London, Bristol and Cardiff.

	Bristol Temple Meads)		
WEMCA-2024-PTS-004	South Wales Metro services between Cardiff and Bristol	Public Transport (Services) - PTS	Transport for Wales services between Cardiff Central and Bristol Temple Meads as part of the South Wales Metro - services will call at new stations along the South Wales Mainline providing a two-way commuter service between Bristol and Cardiff.
WC-2024-RD-001	A350 Malmesbury Road Roundabout	Road - RD	<p>Capacity enhancement of existing junction presenting a traffic throttle and congestion hotspot on key regional corridor. Provision of approximate 400m length of Signal controlled roundabout Improvement or 5 arm signal-controlled junction including minor widening and road marking at A350 / B4158 / Kilverts Way and Services.</p> <ul style="list-style-type: none"> • 350m two lane gyratory • Geometric improvements to approach / egress on all 5no. arms • Signal control on A350 S/B; Kilverts Way; Malmesbury Road or • 5 arm signal-controlled junction • Avoiding Ransome strip on Services / Highway boundary • Drainage mitigation • Pedestrian crossing facilities
WC-2024-RD-002	A350 Lackham to Melksham Bypass Improvements	Road - RD	<p>Provision of approximate 3.2km length of dual carriageway (widening from current single carriageway) between Lackham roundabout and the junction with the proposed Melksham Eastern Bypass, to the north of Melksham</p> <ul style="list-style-type: none"> • Extension of 250m embankment structure crossing Mill Brook • Three structures – potentially road over culverts – which would need to account for extension or strengthening • Melksham Road junction – leading to Lacock Village and Abbey – possible need for signalisation; • Gastard junction – left in - left out junction • Corsham Rd/Mons Lane signalised crossroads junction (Whitehall) – need for upgrade • Notton/Mons Lane junction – left in - left out junction • Notton village junction - left in - left out junction
WC-2024-RD-003	A350 Hagg Hill to Stoney Gutter	Road - RD	<p>Provision of approximate 1.9km length of realigned carriageway and junction improvement at Stoney Gutter (widening from current single carriageway with right turn lanes) between Hag Hill tie in at the termination of the Semington to Melksham diversion and approximately Stourton Farm, to the South of Stoney Gutter signal controlled crossroads.</p> <ul style="list-style-type: none"> • 600m of cutting to eliminate the non-standard crest at Hag Hill • 600m of embankment • Common Hill Junction improvement and Hag Hill Farm access • Stopping up of Gt Hinton junction • Two structures – potentially road over culverts • Stoney Gutter crossroads – dual two-lane signalised crossroad junction with staggered approach to side roads

WC-2024-RD-004	A350 Westbury Bypass + Glenmore Link	Road - RD	<p>Provision of approximate 4.4km length of offline single carriageway highway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm; 1.4km link road from Trowbridge Road to West Wiltshire Ind. Estate.</p> <ul style="list-style-type: none"> • In total the proposed scheme would comprise approximately 5.8 kilometres of new single carriageway around the eastern and northern sides of Westbury that would provide • A new route for the A350 principal road past the town; and • Strategic road access to the West Wilts Trading Estate • Roundabouts would connect the bypass to the existing A350 both north and south of the town between which there would be no junctions.
WC-2024-RD-006	A36 Southampton Road/ Churchill Way	Road - RD	A338 Churchill Way / A36 College Roundabout and A36 Southampton Road to Bourne Way Roundabout carriageway upgrade to urban dual standard including signal control at College Road Roundabout
WC-2024-RD-010	Melksham Bypass	Road - RD	<p>The A350 Melksham Bypass scheme comprises:</p> <ul style="list-style-type: none"> • A full eastern bypass, approximately nine kilometres in length and with four junctions; • Modifications and enhancements to Public Rights of Way along the bypass route; • Supplementary highway improvement works to the adjacent network; and • Complementary walking and cycling measures within Melksham Town and around the existing A350 route.
WC-2024-RD-011	M4 Junction 17 Improvements	Road - RD	<p>Upgrades to Junction 17 involving:</p> <p>Completion of the full signalisation of all approach arms to the junction;</p> <ul style="list-style-type: none"> • Carriageway widening and additional traffic capacity on all approaches to the junction (M4 off slips, A350, A429 and B4122); • Increase in the number of traffic lanes across the motorway bridges from two to three; and • Widening of the circulatory carriageway and introduction of additional traffic lanes and capacity around the junction. <p>The scheme also provides for an improved signage strategy for a cycle route providing north-south connections across the M4, away from the junction itself.</p>
WC-2024-RD-012	A350 Phase 4&5	Road - RD	<ul style="list-style-type: none"> • Phase 4 dualling: widening the A350 to a dual two-lane between Chequers roundabout and Lackham Roundabout • Phase 5 dualling: widening the A350 to a dual two-lane along the full stretch between Cepen Park South Roundabout and Bumpers Farm Roundabout • Bumpers roundabout: capacity enhancements to the Bumpers Farm Roundabout including increasing the circulatory from 2 lanes to 3; signalising the A420 and A350 arms; increasing approach arms from A350 (S), A420 (W), and A420 (E) to 3 lanes; and dualling the exits onto the A420 (E) and A420 (W). • Lackham roundabout: minor changes at the Lackham roundabout to improve traffic flows there.

BCP-2024-MIX-003

- **Option Name:** Poole Town Centre sustainable access package + Poole Travel interchange
- **Proposer:** BCP Council Transport Policy Team

Table E-41 – Poole Town Centre sustainable access package + Poole Travel interchange

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The implementation of the Poole Town Centre sustainable access package and Poole Travel interchange will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. The option also includes the creation of new liveable neighbourhoods and improved wayfinding which is likely to benefit the entire population, including more vulnerable groups. Therefore significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option redevelops the town centre of Poole, including the creation of liveable neighbourhoods. This has potential for positive effects upon human health as it includes elements that could result in improved opportunities for active travel and public transport. This option has the potential to result in improvements to local air quality and noise which could result in positive impacts upon human health and wellbeing. The option also has potential to reduce stress through public realm improvements, resulting in positive impacts on human mental health and wellbeing. However, at this stage uncertain effects have been identified as it is likely to be determined by individual scheme design.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The development of improved wayfinding, subways and roundabouts have potential to result in improvements to user safety. The use of subways can lead to increases in crime and fear of crime amongst users, therefore removing these areas is likely to result in improvements to safety and reducing a fear of crime. Additionally, it assumed that improving wayfinding and town centre redevelopment will contribute to reducing a fear of crime and improving permeability of the public realm, improving safety. Re-configuration of roundabouts may also help to contribute to reducing collisions in these areas. Significant positive effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option seeks to redevelop the town centre of Poole, including improved transport infrastructure. This could result in positive effects to the local economy through improved access to employment, tourism destinations and freight movements. This option would also improve access to international gateways through Pool Harbour.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any effects upon rural economies as a result of this option. The option supports the implementation of the Poole Town Centre sustainable access package and Poole Travel interchange, therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option redevelops the town centre of Poole, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. This supports the implementation of housing allocations. This has potential to result in positive effects, however this effect is not considered to be significant.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including one SSSI, one RAMSAR and one SPA. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		arise, for example within the new liveable neighbourhoods, bus and railway station reconfiguration as this may alter landscape and townscape visual settings.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and Poole Park registered park and garden, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of new and relocated infrastructure. However, long-term, these promotion of sustainable transport routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option redevelops the town centre of Poole and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option supports the implementation of the Poole Town Centre sustainable access package and Poole Travel interchange. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects have been identified for this option as this option will require both the upgrading of existing infrastructure and the development of new infrastructure. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is assumed that new development will

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		include climate resilience measures. This option is also likely to support increased capacity of users on active travel routes. However the scale and nature of improvements to both climate resilience and future population support is likely to be determined by individual scheme design.

BCP-2024-MIX-005

- **Option Name:** A31 Capacity and safety improvements package
- **Proposer:** BCP Council

Table E-42 – A31 Capacity and safety improvements package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This is likely to result in positive effects on population and equalities due to improving access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. This option will also help to support future population growth by providing improved access to sustainable housing and employment site developments in BCP, such as Oakley development sites. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option includes improvements pedestrians and cyclists along the A31, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This has potential for positive effects upon human health and wellbeing as it includes elements that supports better access to active travel and public transport. This option has the potential to result in improvements to local air quality and noise which could result in positive impacts upon human health and wellbeing. The option also has potential to reduce stress through improved safety for traffic, pedestrians and cyclists along the A31, resulting in positive impacts on human mental health and wellbeing. Therefore, significant positive effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option includes improvements to safety for traffic, pedestrians and cyclists along the A31. The option focuses on improving physical infrastructure, including junctions, roundabouts and active travel infrastructure, as well as speed restrictions. This is likely to result in a reduction of collisions for both road and active travel users, particularly with lower traffic speeds. Significant positive effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option seeks to improve capacity and safety improvements at proposed junctions and sections of A31. This would result in positive effects to the economy through improved connectivity of BCP to wider areas and improves access to access to regionally and nationally significant destinations and international gateways like Bournemouth airport, Town Centre and seafront and facilitates the efficient movement of goods and people along the Midlands - South Coast strategic corridor. This is likely to attract inward investment, increase visitor numbers and promote sustainable travel. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	This option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, this is likely to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road and pedestrian capacity, resulting in potential for this option to provide improved capacity for housing developments and increased local populations, particularly arising from the Oakley development sites located in close proximity to the option. Significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a result of increasing the capacity of the A31 and upgrading pedestrian infrastructure. However, this is likely to be determined by the scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and a scheduled monument, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the capacity improvements to the A31, that may result in land take, changing the setting of conservation areas that it is within. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing capacity improvements to the A31 for vehicles and active travel users. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use, as well as reducing congestion and vehicle idling times. However, there is also potential for capacity improvements to encourage private car use. Therefore, this potential improvement to air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This is likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with improvements to road, walking, and cycling infrastructure.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	The infrastructure proposed within this option requires the upgrading of existing infrastructure along the A31. This includes upgrading the existing road and pedestrian infrastructure. It is assumed that any upgrading of existing infrastructure will also include climate resilience measures; however, this is likely to be determined by individual scheme design. This option also increase the capacity of both the road and active travel network in this area, supporting future population growth in BCP.

GCC-2024-CSV-001

- **Option Name:** M5 J10 (incl. new link road & A4019 widening)
- **Proposer:** Gloucestershire County Council

Table E-43 – M5 J10 (incl. new link road & A4019 widening)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The implementation of the M5 Junction 10 new link road and widening of the A4019 will help to improve capacity of the road network and therefore improve access to community services, and education and employment facilities. This will also help to support an increase in future populations associate with housing and employment growth within the Cheltenham Garden Community and Technology Innovation Zone. However, this is not deemed significant due to only supporting improvements to the road network.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option focuses on improving road capacity through the M5 J10 new link road and widening of the A4019. The option does not include any elements that are likely to contribute to improving human health. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option focuses on improving road capacity through the M5 J10 new link road and widening of the A4019. This is likely to result in positive effects upon the economy as providing increased capacity will support the planned development and economic growth around Cheltenham, Gloucester and Tewkesbury which includes the provision of increased employment opportunities and tourist destinations. This option has the potential to provide improved access to national and regional significant destinations as well as improved access to international gateways such as Bristol and Birmingham airport. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves road capacity through the M5 J10 new link road and widening of the A4019 to support developments in Tewkesbury. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, this is likely to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road capacity through the M5 J10 new link road and widening of the A4019 to support developments in Tewkesbury This option provides improved capacity for homes proposed within the Cheltenham Garden Community and Technology Innovation Zone. Significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	. The option improves road capacity through the M5 J10 new link road and widening of the A4019 and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. There is also potential for land take for the new link road to result in loss of local biodiversity, however this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		result of developing a new link road and widening the A4019. However, this is likely to be determined by the scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one listed building and one scheduled monument. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the developing the new link road and widening the A4019, that may result in land take, changing the setting of these assets through noise and visual changes. Additionally, any degradation in air quality as a result of increased vehicle numbers may result in degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Chelt - M5 to conf R Severn surface water waterbody that has poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves road capacity through the M5 J10 new link road and widening of the A4019 and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to developing the road network through providing a new link road. This has potential to result in encouraging private car use, which may negatively affect air quality. However, improving the capacity of the network may reduce vehicle idling times, improving air quality. Therefore, this potential effect on air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	This option focuses on improving road capacity due to implementing the M5 J10 new link road and widening of the A4019. This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released. However, this option also encourages the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with the new link road and widening of the existing road infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	++	This option is anticipated to require both the upgrading of existing infrastructure through the widening of the A4019, and the development of new infrastructure in the M5 J10 new link road. It is assumed that both the upgrading and new

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		developments will include additional climate resilience measures. However, this is likely to be determined by individual scheme design. Additionally, this option supports increased capacity on the road network and is linked to additional housing developments, improving infrastructure for future population growth.

GCC-2024-TKS-001

- **Option Name:** M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor
- **Proposer:** Gloucestershire County Council

Table E-44 – M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to address capacity constraints on the Trans-Midland Trade Corridor (M5 Junction 9 and A46). These improvements are likely to provide improved access to housing and employment opportunities to support the planned growth within the Tewkesbury district as part of the Strategic Outline Business Case to deliver significant housing and employment (11,083 jobs). Therefore, significant positive effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor. The option does not include any elements that are likely to contribute to improving human health. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor. This is likely to result in positive effects upon the economy due to the strategic housing and employment growth at junction 9 and along the corridor of the A46 from Teddington Hands. This option has the potential to provide improved access to national and regional significant destinations. However, at this time, uncertain effects have been identified as it is unclear if this option will provide access to international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The option aims to address capacity constraints on the Trans-Midland Trade Corridor (M5 Junction 9 and A46). These improvements are likely to provide improved access to employment opportunities to support the planned growth within the Tewkesbury district as part of the Strategic Outline Business Case to deliver significant housing and employment (11,083 jobs). Therefore, significant positive effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor. This option provides improved capacity for homes proposed within Tewkesbury that will place significant strain along this stretch of the road network. Improving the capacity of this network is therefore anticipated to result in significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor and is located between 500m and 1km away from the Upham Meadow and Summer Leasow SSSI. There is potential for this option to result in minor, negative effects upon biodiversity, through the vibration and noise of construction activities. However, at this time, uncertain effects have been identified as it is unclear if this option will affect species and habitats in the area.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Costwolds National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of the widened route. There is also potential for negative effects to arise as a result of altering the visual amenity of these landscapes in

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		the long-term. However, it is assumed that any potential significant effect mitigated against in design. The option also has potential to increase vehicle noise within the national landscape through encouraging car use.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one conservation area, multiple listed buildings and two scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased capacity of the road network, that may result in land take, changing the setting of these assets through increased noise. Additionally, any degradation in air quality as a result of increased vehicle numbers may result in degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly Tewkesbury Abbey, through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Tirlle Brook - source to the conf River Swilgate surface water waterbody that has poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the road network. This has potential to result in encouraging private car use, which may negatively affect air quality. However, improving the capacity of the network may reduce vehicle idling times, improving air quality. Therefore, this potential effect on air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option aims to address capacity constraints on the Trans-Midland Trade Corridor (M5 Junction 9 and A46). This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released. However, this option also encourages the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with interventions to address capacity constraints.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option is anticipated to require the upgrading of existing infrastructure along the M5 J9 A46 and the Trans-Midland Trade Corridor, improving the maintenance of existing routes. It is assumed that this option will include additional climate resilience measures. However, this is likely to be determined by individual scheme design. Additionally, this option supports increased capacity on the road network and is linked to additional housing developments, improving infrastructure for future population growth.

GCC-2024-CSV-013020

- **Option Name:** M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine
- **Proposer:** Gloucestershire County Council

Table E-45 – M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The options will help to improve road capacity at the M5 J12 and provide links to the Gloucester Cycle Spine. This is likely to provide improved access for all, in particular those who do not have access to a private car such as older people and younger people. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. This option has potential to improve human mental health and wellbeing through improved access to employment opportunities and links to active travel opportunities. This option also has the potential to have indirect negative effects upon human health and wellbeing through increased noise and reduced air quality as a result from increased traffic flow. However, the exact measures to improve and support active travel and public transport are currently unclear and likely to be determined by scheme design.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	Significant positive effects are anticipated as a result of this option upon community safety. The option has potential to improve the safety of the M5 J12 and the link to the Gloucestershire Cycle Spine, reducing the number of accidents and KSI.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. This is likely to result in positive effects upon the economy due to increased housing and employment opportunities. This option has the potential to provide improved access to national and regional significant destinations. However, at this time, uncertain effects have been identified as it is unclear if this option will provide access to international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The options will help to improve road capacity at the M5 J12 and provide a link to the Gloucester Cycle Spine from Haresfield to support the housing and economic growth as set out in the Stroud Local Plan. Therefore, significant positive effects have been identified for rural economies.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. This option provides improved capacity for homes proposed within Stroud through developing supporting infrastructure for housing developments. Therefore, significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a result of increasing the capacity of the M5 J12. However, this is likely to be determined by the scheme design.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one conservation area, multiple listed buildings and two scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased capacity of the road network, that may result in land take, changing the setting of these assets through increased noise. Additionally, any degradation in air quality as a result of increased vehicle numbers may result in degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the road network. This has potential to result in encouraging private car use, which may negatively affect air quality. However, improving the capacity of the network may reduce vehicle idling times, improving air quality. Therefore, this potential effect on air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option aims to address capacity constraints on the M5 Junction 12 and links to the Gloucestershire Cycle Spine. This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released, as well as encouraging a modal shift in more sustainable transport modes. However, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with capacity and safety improvements to the road network.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option upgrades the existing infrastructure along the M5 J12 and its links to the Gloucestershire Cycle Spine, maintaining the existing transport network. It is assumed that the upgrading the existing infrastructure will include additional climate resilience measures. However, the nature of these measures are likely to be determined by individual scheme design. Additionally, this option supports increased capacity on the road network and is linked to additional housing developments, improving infrastructure for future population growth.

NR-2024-PTI-009

- **Option Name:** Gloucester area re-signalling - enhanced renewal
- **Proposer:** Network Rail

Table E-46 – Gloucester area re-signalling - enhanced renewal

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The improved signalling in the Gloucester area will help to increase capacity of the train services which will likely result in beneficial impacts on access for the population as a whole. However, this is considered to be minor and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves signalling efficiency in the Gloucester area. There is potential for positive effects upon human mental health and wellbeing through increased train services. However, these effects are considered to be minor. Therefore, negligible effects are identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option improves signalling efficiency in the Gloucester area. This is likely to result in positive effects upon the economy due to increased passenger and freight train services to Bristol and the south coast. This option has the potential to provide improved access to national and regional significant destinations as well as international gateways such as Bristol airport.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The improved signalling in the Gloucester area will help to increase capacity of the train services which will likely result in beneficial impacts on access to employment opportunities for the population as a whole. However, this is considered to be minor and therefore, negligible effects have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves signalling efficiency in the Gloucester area, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option improves signalling efficiency in the Gloucester area and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage of railway enhancements. However, this is likely to be determined by the scale of development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, namely listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the option improves signalling efficiency in the Gloucester area and the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the rail network capacity. This has potential to indirectly result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	Works will take place across the Gloucester area, a large area of which is within Flood zone 3. There is a possibility that works may take place within Flood Zone 3, therefore it is considered appropriate to flag the potential for significant effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The improved signalling in the Gloucester area will help to increase capacity of the train services which will help to encourage a modal shift in more sustainable transport modes. However, this is considered to be minor and therefore, negligible effects have been identified
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	Works will take place across the Gloucester area, and may be within Best and Most versatile agricultural land, though as it is predominantly enhancement work to take place on existing infrastructure, no land take is expected and therefore no significant effects.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure through the upgrading of Gloucester signalling. This is also likely to improve the maintenance of the signalling and rail network within this area of the line. The improvements proposed within the option are also likely to result in improved capacity on the rail line, facilitating additional train services. Significant positive effects have therefore been identified.

A417 Missing Link

- **Option Name:** A417 Missing Link
- **Proposer:** National Highways

Table E-47 – A417 Missing Link

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The improved A417 connection between Brockworth and Cowley is likely to improve access to community services, and employment and education facilities within the local area and in Gloucester. Further benefits could come from the implementation of active travel connections. Therefore, it is deemed that these effects are not significant and negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option improves the A417 connection between Brockworth and Cowley. Indirect positive effects could arise through improved access to active travel connections and health destinations in Gloucester, Cirencester and Swindon. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	This option improves the A417 connection between Brockworth and Cowley. The development of this new highways scheme has potential to result in positive effects upon road user safety, however this is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option improves the A417 connection between Brockworth and Cowley. This is likely to result in significant positive effects upon the economy as the scheme is on a key freight route from West Midlands to South Coast / South East and improve connectivity to employment opportunities in Swindon and Gloucester. In addition, the option could improve connectivity to leisure facilities in the Cotswolds area, which could attract increased tourism and investment opportunities to the area. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The improved A417 connection between Brockworth and Cowley is likely to improve access to employment opportunities in the local area and further afield in Gloucester and Swindon, as well as tourist attractions located in the Cotswolds. Therefore, significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves road connectivity around the A417, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	This option is located within 500m of multiple designated sites. There is potential for negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option improves road connectivity around the A417 and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	The option intersects the Cotswolds National Landscape and has potential to negatively affect the landscape. Construction has potential to increase noise in this area and negatively affect visual amenity. There is also potential for

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		changes to the national landscape during operation due to visual changes during operation. There is potential for landscape-led design to result in positive effects during operation. However, this design is currently unknown.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including listed buildings and registered parks and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. There is potential for landscape-led design to result in positive effects on the setting of assets during operation. However, this design is currently unknown. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly within the Cotswolds National Landscape through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise. Additionally, there is potential for construction of the new highways scheme to result in negative effects during the construction stage from noise and vibration, particularly upon the setting of heritage assets. There is also the potential for negative effects on the setting of heritage assets if the development is not sensitively designed. This is likely to be determined by individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of the road improvements is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located either fully or partially within Flood Zone 1 or 2. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option aims to improved A417 connection between Brockworth and Cowley. This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released. However, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	This option improves the connection between dual carriageway sections of the A417 at Brockworth and Cowley. It is anticipated that this option will require the development of new infrastructure. The area is predominantly Grade 3 agricultural land, and the option could therefore result in loss of Best and Most versatile agricultural land.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	This option improves the connection between dual carriageway sections of the A417 at Brockworth and Cowley. It is anticipated that this option will require the development of new infrastructure. However the scale of new infrastructure required is currently unknown. It is assumed that the new development will also include climate resilience measures, however the nature and scale of this is likely to be determined by individual scheme design.

Potential small scheme: A36 Beckington Roundabouts

- **Option Name:** Potential small scheme: A36 Beckington Roundabouts
- **Proposer:** National Highways

Table E-48 – Potential small scheme: A36 Beckington Roundabouts

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes minor improvements to the A36 Beckington Roundabout, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option includes minor improvements to the A36 Beckington Roundabout. The option has potential to help reduce congestion resulting in indirect positive effects on human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users at the A36 Beckington Roundabouts. Any improvements to user safety is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option includes minor improvements to the A36 Beckington Roundabout. The option has potential for positive effects to arise as it supports the Midlands to Dorset Coast freight route. However, these effects are considered to be minor. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes minor to the A36 Beckington Roundabout, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes minor improvements to the A36 Beckington Roundabout and has potential to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes minor improvements to the A36 Beckington Roundabout and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes minor improvements to the A36 Beckington Roundabout and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to still flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes minor improvements to the A36 Beckington Roundabout. This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The A36 Beckington Roundabout is located adjacent to Best and Most Versatile agricultural land (Grades 1 and 3), if any improvements to the roundabout require additional infrastructure or land take, there is potential for loss of Best and Most versatile agricultural land, depending on the precise location of works, and therefore significant effects have been identified,
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option improves the existing A36 Beckington Roundabouts, improving the maintenance of existing infrastructure. There is potential for positive effects arising from the improvement of the A36 roundabouts, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)

- **Option Name:** Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)
- **Proposer:** National Highways

Table E-49 – Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes minor improvements to the A36 Salisbury (Southampton Road Roundabouts), which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential to help reduce congestion resulting in indirect positive effects on human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users at the A36 Salisbury (Southampton Road Roundabouts). Any improvements to user safety is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option includes minor improvements to the A36 Salisbury (Southampton Road Roundabouts). The option has potential for positive effects to arise as it provides improved access to international gateways in Southampton Airport and Southampton & Portsmouth ports. In addition, the option supports Midlands to Dorset Coast freight route. There is potential for this option to improve access to regionally and nationally significant destinations. However, this is currently unclear. Therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes minor improvements to the A36 Salisbury (Southampton Road Roundabouts), which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes minor improvements to the A36 Salisbury (Southampton Road Roundabouts) and has potential to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option includes minor improvements to the A36 Salisbury (Southampton Road Roundabouts) and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes minor improvements to the A36 Salsbury (Southampton Road Roundabouts) and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The Southampton Road roundabouts are located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option improves the existing A36 Salsbury (Southampton Road Roundabouts). This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option improves the existing A36 Salsbury (Southampton Road Roundabouts), improving the maintenance of existing infrastructure. There is potential for positive effects arising from the improvement of the A36 roundabouts, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Potential small scheme: A35 Dorchester Roundabouts

- **Option Name:** Potential small scheme: A35 Dorchester Roundabouts
- **Proposer:** National Highways

Table E-50 – Potential small scheme: A35 Dorchester Roundabouts

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes minor improvements to the A35 Dorchester Roundabouts, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential to help reduce congestion resulting in indirect positive effects on human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users at the A35 Dorchester Roundabouts. Any improvements to user safety is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option includes minor improvements to the A35 Dorchester Roundabouts. The option has potential for positive effects to arise as it supports the Midlands to Dorset Coast freight route. However, these effects are considered to be minor. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves the existing A35 Dorchester Roundabouts, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes minor improvements to the A35 Dorchester Roundabouts and has potential to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of the River Frome SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option includes minor improvements to the A35 Dorchester Roundabouts and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	The option is within 500m of the Dorset National Landscape and has potential to negatively affect the landscape of the national landscape. Construction has potential to increase noise in this area and negatively affect visual amenity. There is also potential for changes to the national landscape during operation due to visual changes.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes minor improvements to the A35 Dorchester Roundabouts and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option improves the existing A35 Dorchester Roundabouts. This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The A35 roundabouts are adjacent to areas of Best and Most versatile agricultural land (Grades 1 and 3). If any improvements to the roundabouts require additional infrastructure or land take, there is potential for loss of Best and Most versatile agricultural land, depending on the precise location of works, and therefore significant effects have been identified,
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option improves the existing A35 Dorchester Roundabouts, improving the maintenance of existing infrastructure. There is potential for positive effects arising from the improvement of the A35 Dorchester roundabouts, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Strategic Renewal - M32 Eastville viaduct

- **Option Name:** Strategic Renewal - M32 Eastville viaduct
- **Proposer:** National Highways

Table E-51 – Strategic Renewal - M32 Eastville viaduct

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to maintain access to the core of Bristol city centre, as well as Thornbury, Yate and East Bristol through the refurbishment of structures on the M32 viaduct at J2. However it is considered that any effects on population and equalities are likely to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option would maintain reliable accessibility to the City of Bristol which would result in positive effects on human mental health and wellbeing through. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option would maintain reliable accessibility to the City of Bristol and further afield such as Gloucester and Forest of Dean. In addition, this option would support access to Bristol airport, an international gateway. However, it is unclear if this option will increase efficiency, reliability and/or sustainability of essential goods movement on strategic routes. Therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The Option will help to maintain access to tourist destinations including the Cotswolds and Forest of Dean. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the M32 viaduct infrastructure at J2 and does not directly impact housing growth. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves the M32 viaduct infrastructure at J2 and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	At this stage, the option is not anticipated to result in any improvements to accessibility to heritage assets as the option refurbishes the existing infrastructure and does not increase the capacity, accessibility or efficiency or the highways network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the River Frome that has poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the M32 viaduct infrastructure at J2 and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within the Bristol AQMA. However it is currently uncertain if this option would result in improvements to air quality as the option focuses on improvements to the Eastville Viaduct. Effects on air quality are likely to be determined by any changes to the road network as a result of this upgrade.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as works could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option will help to maintain access to the core of Bristol city centre, as well as Thornbury, Yate and East Bristol through the refurbishment of structures on the M32 viaduct at J2. This option does not support a reduction in greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option refurbishes the existing M32 viaduct infrastructure, improving the maintenance of existing infrastructure and ensuring it is well maintained. There is potential for positive effects arising from this refurbishment, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct

- **Option Name:** Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct
- **Proposer:** National Highways

Table E-52 – Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option will help to maintain accessibility along the M5 J20 between Clevedon and Portishead. This is likely to benefit the local population, however it is considered that any effects on population and equalities are likely to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option would maintain reliable accessibility to the City of Bristol which would result in positive effects on human mental health and wellbeing through access to employment, education and tourism destinations. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option would maintain reliable accessibility to the City of Bristol, the Midlands/ north and South West regions to access employment opportunities and tourist destinations. In addition, this option would support access to Bristol airport and Avonmouth port, both of which are international gateways. However, it is unclear if this option will increase efficiency, reliability and/or sustainability of essential goods movement on strategic routes. Therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option will help to maintain reliable access to Bristol, the Midlands/North and South West region. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the M5 J20-19 bridge cluster and Whynol Viaduct and does not directly impact housing growth. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves the M5 J20-19 bridge cluster and Whynol Viaduct and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings and a registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	At this stage, the option is not anticipated to result in any improvements to accessibility to heritage assets as the option refurbishes the existing infrastructure and does not increase the capacity, accessibility or efficiency or the highways network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the M5 J20-19 bridge cluster and Whynol Viaduct and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option does not support improvements to air quality as it focuses on renewing the bridges between the M5 J20 and J19.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as works could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option will help to maintain reliable access to Bristol, the Midlands/North and South West region. This option does not support a reduction in greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within best and most versatile agricultural land (Grades 1, 2 and 3a), though is unlikely to result in its loss as the option would include refurbishment of existing infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option refurbishes the existing M5 J20-19 bridge cluster and Whynol Viaduct infrastructure, improving the maintenance of existing infrastructure and ensuring it is well maintained. There is potential for positive effects arising from this refurbishment, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

NSC-2024-RD-001

- **Option Name:** A38 Major Road Network (MRN) scheme package
- **Proposer:** North Somerset Council

Table E-53 – A38 Major Road Network (MRN) scheme package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The capacity improvements on the A38 to include bus prioritisation and active travel provision will help to improve access for the whole population, in particular those who do not have access to a private vehicle such as younger people, older people, and those with a long-term health condition or disability. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option improves the capacity of the road and active travel network of the A38. There is potential for positive effects to arise upon human mental health and wellbeing as a result to improved public transport and active travel provision. However, active travel and public transport improvements are likely to be determined by individual scheme design which is currently unknown. Therefore, uncertain effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users as well as active travel users. Any improvements to user safety, such as road safety improvements, lighting improvements along active travel routes, or designing out crime principles, is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option will have positive effects on the economy through improved connectivity of the A38 route between Bristol, Bristol Airport and Somerset which will enhance regional and international gateways for freight, airport passengers and tourists. There would be potential to attract inward investment and improve access to tourist destinations as well as employment opportunities, supporting local economic growth. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The capacity improvements on the A38 to include bus prioritisation and active travel provision will help to improve access to employment opportunities and tourist attractions for all. This is also likely to provide greater connectivity to Bristol Airport where internal gateways can be accessed. Therefore, significant effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the capacity of the road and active travel network, supporting increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option improves the capacity of the road and active travel network and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	The option intersects the Mendip Hills National Landscape and has potential to negatively affect the landscape through expansion of the A38. Construction has potential to increase noise in this area and negatively affect visual amenity. There is also potential for changes to the national landscape during operation due to visual changes.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, mainly listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the capacity of the road and active travel network and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable travel network, encouraging bus usage. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, improving the capacity of the A38 may encourage the use of private vehicles, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as works could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option supports capacity improvements on the A38 to include bus prioritisation and active travel provision. This is likely to help with a modal shift to more sustainable transport modes, and likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3 if works to improve capacity of the A38 result in land take, depending on the location of works.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained	++	This option includes the upgrading of existing road and active travel infrastructure through the upgrading of the A38. The improvements proposed within the option are also likely to result in improved capacity on the road and pedestrian networks, supporting increasing population needs. Significant positive effects have therefore been identified.



SEA Objective	Likely Significant Effects	Commentary
and resilient to future climate risks and support future population growth.		

WEMCA-2024-TI-001

- **Option Name:** Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter
- **Proposer:** West of England Combined Authority

Table E-54 – Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option provides improvements to Bristol Temple Meads to help with overcrowding. This is likely to help improve access for all users of the train station. However, these beneficial effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to Bristol Temple Meads station infrastructure. Positive effects upon human health and wellbeing, are likely to arise from improved public realm facilities and reduced overcrowding. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	There is potential for improvements to Bristol Temple Meads to result in improvements to user safety and reduced fear of crime within this train station. However, this is likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides improvements to Bristol Temple Meads station infrastructure. There is potential that this option could encourage increased passenger which could help support the local economy. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option provides improvements to Bristol Temple Meads station infrastructure and is unlikely to impact rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to Bristol Temple Meads station infrastructure. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to Bristol Temple Meads station infrastructure and is not located within 500m of any designated sites. Therefore, negligible effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the construction stage of railway enhancements. During operation, there may also be changes to the townscape visual

SEA Objective	Likely Significant Effects	Commentary
		setting as a result of station upgrades. However, this is likely to be determined by the location and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects multiple conservation areas and listed buildings, and is located within 500m of multiple other heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design of interchange opportunities and location of improved network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to Bristol Temple Meads station infrastructure. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within the Bristol AQMA. However it is currently uncertain if this option would result in improvements to air quality as the option focuses on improvements to Bristol Temple Meads Station. Effects on air quality are likely to be determined by any changes to services as a result of this upgrade.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as improvements to Bristol Temple Meads station may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option provides improvements to Bristol Temple Meads to help with overcrowding. This is likely to help improve access for all users of the train station and overall passenger experience, which is likely to encourage a modal shift to more sustainable transport modes. However, these effects are deemed to be minor. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any new infrastructure will be required to support the strategic transport corridors proposed within this option. This development will support increases in future population and bus user numbers, however the scale of this currently cannot be determined.

WEMCA-2024-PTI-008

- **Option Name:** Rail electrification - Filton Bank (between Bristol Parkway / Patchway to Bristol Temple Meads)
- **Proposer:** West of England Combined Authority

Table E-55 – Rail electrification - Filton Bank (between Bristol Parkway / Patchway to Bristol Temple Meads)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Rail electrification between Bristol Parkway / Patchway to Bristol Temple Meads is unlikely to result in significant effects on population and equalities. However, it will likely improve overall passenger experience due to providing a more sustainable service.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple meads. Positive effects upon human health and wellbeing, are likely to arise from improved rail services and journey times. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides improvements to Bristol Temple Meads station infrastructure. There is potential that this option could encourage increased passengers which could help support the local economy. In addition, this option could improve cross-boundary connectivity from the Western Gateway STB region and Wales, encouraging increased commuters for employment and tourism, which could result in positive effects upon the economy. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any effects upon rural economies as a result of this option. The option provides the electrification of the rail line between Bristol Parkway / Patchway to Bristol Temple Meads, therefore negligible effects have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any effects upon housing growth as a result of this option. The option provides the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple meads, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple meads and is not located within 500m of any designated sites. Therefore, negligible effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the construction stage of electrification enhancements. However, this is likely to be determined by the scale and duration of development.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and a registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	This option addresses the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple Meads and therefore is not anticipated to have any direct or indirect effects on access to heritage assets. Negligible effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	This option addresses the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple Meads. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to facilitate the transition away from diesel train stock, improving air quality. Additionally, it is also anticipated to encourage a modal shift away from private vehicles, further improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as rail improvements may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Rail electrification between Bristol Parkway, Patchway and Bristol Temple Meads is likely to result in positive effect on greenhouse gases due to reducing carbon emissions associated with the existing train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for this option as the development of overhead line electrification will contribute to supporting the transition to renewable energy sources on the railways within the Western Gateway STB region.

WEMCA-2024-PTS-004

- **Option Name:** South Wales Metro services between Cardiff and Bristol
- **Proposer:** West of England Combined Authority

Table E-56 – South Wales Metro services between Cardiff and Bristol

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This is likely to improve access to community services, and employment and education opportunities for the whole local population, in particular those who do not have access to a private vehicle such as younger people, older people, and those with a long-term health condition or disability. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. Positive effects upon human health and wellbeing are likely to arise from improved inter-regional rail services and journey times, which could also reduce stress for commuters. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This option could encourage increased passengers for business opportunities and tourist destinations, which could help support the local economy. Significant positive effects have therefore been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This option could encourage increased passengers for business opportunities and tourist destinations, which could help support the rural economies. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI, one SPA, two RAMSAR's and one SAC. In addition, one designated sites has been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, The option provides improvements to rail services between Cardiff Central and Bristol Temple meads and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes as a result of additional rail services. However, this is likely to be determined by the frequency of services.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of increased noise and vibration from rail services. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of new stations served by this option.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects the Avonmouth Mercia Mudstone groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to rail services between Cardiff Central and Bristol Temple meads and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new rail infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This is likely to help with the modal shift to more sustainable transport modes, reducing transport related emissions across the Western Gateway STB region. Therefore, significant positive effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through land take associated with delivery of new rail stations.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any upgrading or new infrastructure will be required to support the additional rail services proposed within this option. This development

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		will support increases in future population rail user numbers, however the scale of this currently cannot be determined and is likely to be determined by individual stations serviced by the option.

WC-2024-RD-001

- **Option Name:** A350 Malmesbury Road Roundabout
- **Proposer:** Wiltshire Council

Table E-57 – A350 Malmesbury Road Roundabout

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes improvements to the A350 Malmesbury Road Roundabout, which has the potential to reduce congestion and improve safety, and therefore improving access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option is likely to result in improvements to pedestrian safety through improved pedestrian crossing facilities. Additionally, the development of widening and improved signal control at the A350 junction is likely to result in a reduction in the number of collisions along this area of road where collisions are frequent.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes improvements to the A350 Malmesbury Road Roundabout, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	Uncertain effects have been identified for this option in relation to the historic environment. The option is located within 1km of three listed buildings, one scheduled monument, and one conservation area. There is potential for this option to result in improvements to the setting of these heritage assets, through sensitive scheme design and through a reduction in traffic congestion locally. However, this is likely to be determined by individual scheme design.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute indirectly to improving access to heritage assets within Western Gateway, through improving road connectivity. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improvements to the A350 Malmesbury Road Roundabout. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the existing A350, reducing traffic. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improvements to the A350 Malmesbury Road Roundabout. This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with enhancement of the existing junction.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure to meet population demands for the road network in this area and reduce congestion. This option also includes the development of drainage mitigation, contributing to climate resilience within this area of highway. Significant positive effects have therefore been identified.

WC-2024-RD-002

- **Option Name:** A350 Lackham to Melksham Bypass Improvements
- **Proposer:** Wiltshire Council

Table E-58 – A350 Lackham to Melksham Bypass Improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The A350 Lackham to Melksham Bypass Improvements will help to increase road capacity and therefore, improve access and connectivity. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through improved junctions along the A350 Lackham to Melksham Bypass. This is likely to reduce the number of collisions along this area of road where collisions are currently frequent.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The A350 Lackham to Melksham Bypass Improvements has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. Therefore, negligible effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects Lacock Conservation Area, and is located within 500m of 10 listed buildings, Lacock Abbey Registered Park and Garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets both during construction, as a result of noise and vibration, as well as during operation of the option as a result of increased traffic numbers. There is also potential for alteration of the Lacock Conservation area as a result of the development of this option. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly Lacock Abbey and Lacock, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the existing A350, reducing traffic. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The dualling of the A350 between Melksham and Lackham does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	==	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through land take associated with widening of the dual carriageway.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure to meet population demands for the road network in this area and reduce congestion. This option also includes the development of road over culverts, contributing to climate resilience within this area of highway. Significant positive effects have therefore been identified.

WC-2024-RD-003

- **Option Name:** A350 Hagg Hill to Stoney Gutter
- **Proposer:** Wiltshire Council

Table E-59 – A350 Hagg Hill to Stoney Gutter

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Improvements to the A350 Hagg Hill to Stoney Gutter will help to increase road capacity and therefore, improve access and connectivity, and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through junction improvements and the elimination of the non-standard crest at Hag Hill. This is likely to reduce the number of collisions along this area of road, reducing the number of killed or seriously injured (KSI) along the A350.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Improvements to the A350 Hagg Hill to Stoney Gutter has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of the Shrunken Settlement of Paxcroft to east of Lower Paxcroft Farm Scheduled Monument. There is potential for development of this option to result in disturbance to the setting of this heritage assets during construction, as a result of noise and vibration. Whilst it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the road network and junctions of the existing A350 around Hag Hill, reducing traffic. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Improvements to the A350 Hagg Hill to Stoney Gutter does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with enhancement of the existing carriageway and junction.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure to improve capacity for future population needs, as well as ensuring maintenance of the existing route by removing the non-standard crest at Hag Hill. This option also includes the development of road over culverts, contributing to climate resilience within this area of highway. Significant positive effects have therefore been identified.

WC-2024-RD-004

- **Option Name:** A350 Westbury Bypass + Glenmore Link
- **Proposer:** Wiltshire Council

Table E-60 – A350 Westbury Bypass + Glenmore Link

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The provision of an offline single carriageway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm and a link road between Trowbridge Road and West Wiltshire Industrial Estate will help to improve access to community services, and education and employment opportunities. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects have been identified for this option as it is currently unclear what safety measures will be implemented with the development of the proposed new single carriageway highway. This is likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The provision of an offline single carriageway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm and a link road between Trowbridge Road and West Wiltshire Industrial Estate has the potential to reduce congestion and therefore improve access employment opportunities. However, these effects are considered to be minor for rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of two SSI's. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides improvements to road infrastructure and capacity and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. There is potential for this scheme to result in land take and alteration of landscape settings. However, this is currently unknown. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of the Two Cross Ridge Dykes east of Wellhead Farm Scheduled Monument, as well as one listed building. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration and land take for the new highway development. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Upper Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to road infrastructure and capacity and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the road network of the A350 and providing a new bypass. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The provision of an offline single carriageway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm and a link road between Trowbridge Road and West Wiltshire Industrial Estate does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with provision of new single carriageway.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the development of a new highway and it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design. It is also anticipated that the proposed scheme will improve the capacity of the road network for future generations, resulting in the potential for positive effects.

WC-2024-RD-006

- **Option Name:** A36 Southampton Road/ Churchill Way
- **Proposer:** Wiltshire Council

Table E-61 – A36 Southampton Road/ Churchill Way

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Improvements to the A36 Southampton Road/ Churchill Way will help to increase road capacity and therefore, improve access and connectivity, and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through junction improvements. This is likely to reduce the number of collisions along this area of road, reducing the number of killed or seriously injured (KSI) along the A338/A36 College Roundabout and A36 Southampton Road to Bourne Way Roundabout.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option provides improvements to road infrastructure and capacity and has potential for positive effects to arise upon the economy through improved connectivity from the south coast with the M4 onwards towards Bristol and the Midlands. However, at this time, uncertain effects have been identified as the scale of improved accessibility and connectivity is likely to be determined by the individual scheme design.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Improvements to the A36 Southampton Road/ Churchill Way has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor on rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI and one SAC. In addition, one SSSI has been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides improvements to road infrastructure and capacity and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of two listed buildings, and within 1km of multiple assets, including listed buildings, registered parks and gardens, and a scheduled monument. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration. Whilst it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Upper Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to road infrastructure and capacity and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	Uncertain effects have been identified for this option as it is located within Salsbury City Centre AQMA. There is potential for this option to result in improvements to air quality through reducing congestion and idling vehicles, therefore improving air quality. However, there is also potential that this option may encourage private car use and increase the number of vehicles within the AQMA, reducing air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as road infrastructure improvements may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Improvements to the A36 Southampton Road/ Churchill Way does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	This option includes the upgrading of existing infrastructure to improve capacity for future population needs. It is currently unclear whether this will include additional climate resilience measures as this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.

WC-2024-RD-010

- **Option Name:** Melksham Bypass
- **Proposer:** Wiltshire Council

Table E-62 – Melksham Bypass

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The implementation of a full eastern bypass (A350 Melksham Bypass) will help to improve road capacity and improve access for all. Further benefits will be felt for the improvements to public rights of way along the bypass route and introduction of walking and cycling measures within Melksham Town and around the existing A350 route. Beneficial effects will be particularly felt by those who do not have access to a private car, including younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. The provision of walking and cycling measures within Melksham Town and the existing A350 is likely to result in positive effects upon human health by encouraging healthier lifestyles. However, the exact scale of this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	The option has potential to result in positive effects upon community safety through the development of a A350 Melksham Bypass, which has potential to result in improvements to road safety within alternative routes such as Melksham town centre, as well as the modification of PRowS and active travel measures. Exact details of enhancements to PRowS is currently unknown, however, there is potential for this to include enhancements to the safety of these routes, including improving feelings of safety. Additionally, providing walking and cycling measures within Melksham Town and the existing A350 is likely to result in reduced user conflicts between active travel and road users, improving safety and reducing collisions. The exact scale of this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option provides improvements to road infrastructure and capacity and has potential for positive effects to arise upon the economy through improved connectivity from the south coast with the M4 onwards towards Bristol and the Midlands. However, at this time, uncertain effects have been identified as the scale of improved accessibility and connectivity is likely to be determined by the individual scheme design.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The implementation of a full eastern bypass (A350 Melksham Bypass) will help to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise. The option also has potential to alter views during construction through plant equipment and construction compounds. There is also potential for the option to result in land take for the development of the new bypass, altering the landscape views and setting.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located approximately 170m from Lacock Conservation Area, as well as within 500m of four listed buildings and Lacock Abbey Registered Park and Garden, and within 1km of multiple other listed buildings. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration. It is also uncertain if the development will result in additional alteration of the setting of heritage assets as a result of the design of the Melksham Bypass. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly those in and around Lacock, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Forest Brook surface waterbody that has poor ecological status and failed chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to road infrastructure and capacity, of which the scale is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing a new bypass. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The implementation of a full eastern bypass (A350 Melksham Bypass) does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network and provision of walking and cycling routes will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with construction of the new bypass, improvements to existing infrastructure, and walking and cycling measures.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the development of a new bypass and it is currently unknown what scale of existing infrastructure will be utilised. Additionally, it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design. It is anticipated that the proposed scheme will improve the capacity of the road network for future generations, resulting in the potential for positive effects.

WC-2024-RD-011

- **Option Name:** M4 Junction 17 Improvements
- **Proposer:** Wiltshire Council

Table E-63 – M4 Junction 17 Improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option has potential to result in positive effects on population and equalities due to the upgrades to Junction 17 which will help to increase road network capacity and improve access to the road network. Further benefits, will be felt from the implementation for an improved signage strategy for a cycle route providing north-south connections across the M4, away from the junction itself. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through junction improvements and improving road user safety at Junction 17. This is likely to reduce the number of collisions along this area of road, reducing the number of killed or seriously injured (KSI). Additionally, improved signage for the cycle route across the M4 away from the M4 is likely to improve wayfinding and improve feelings of safety along this route.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help improve connectivity of the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Upgrades to Junction 17 have the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within the Stanton St. Quintin Quarry and Motorway Cutting SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides improvements to road infrastructure and capacity and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		arise. The option also has potential to alter views during construction through plant equipment and construction compounds.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located approximately 450m from Stanton St Quintin Conservation Area, and within 1km of multiple other assets, including a listed building, scheduled monument and conservation area. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, particularly as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing junction improvements. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Upgrades to Junction 17 does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network and implementation for an improved signage strategy for a cycle route will help to reduce congestion and encourage a shift to more sustainable transport modes. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with widening of the carriageway and construction of additional traffic lanes.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the upgrading of existing infrastructure and capacity for future population needs, which has potential to result in positive effects. However, it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design.

WC-2024-RD-012

- **Option Name:** A350 Phase 4&5
- **Proposer:** Wiltshire Council

Table E-64 – A350 Phase 4&5

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option has potential to result in significant positive effects on population and equalities due to the dualling of the A350 between Chequers roundabout and Lackham Roundabout, and Cepen Park South Roundabout and Bumpers Farm Roundabout which will help to increase road network capacity, reduce congestion and improve local access. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	The option has potential to result in positive effects upon community safety through capacity and junction improvements, however the scale of this is likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help improve connectivity of the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Dualling of the A350 between Chequers roundabout and Lackham Roundabout, and Cepen Park South Roundabout and Bumpers Farm Roundabout is likely to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise. The option also has potential to alter views during construction through plant equipment and construction compounds.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	Uncertain effects have been identified for this option in relation to the historic environment. The option is located more than 500m, but within 1km of one listed building, three conservation areas, and two registered parks and gardens. There is potential for this option to result in improvements to the setting of these heritage assets, through sensitive scheme design and through a reduction in traffic congestion locally. However, this is likely to be determined by individual scheme design.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing capacity improvements along the A350. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as road infrastructure improvements may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Dualling of the A350 between Chequers roundabout and Lackham Roundabout, and Cepen Park South Roundabout and Bumpers Farm Roundabout does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the upgrading of existing infrastructure and capacity for future population needs, which has potential to result in positive effects. However, it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design.



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