



West Sussex County Council

Local Transport Plan

WSTP4 Sustainability Appraisal





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Appendix E SA 2021 Natural England Consultation Comments (see separate document)

1 Introduction

1.1 General

- 1.1.1. This document is the Sustainability Appraisal (SA) for the fourth Local Transport Plan (LTP4, herein known as the 'West Sussex Transport Plan 2022-36' (WSTP4)) for West Sussex County Council (WSCC). This report describes the proposed approach being taken for the development of the WSTP4 and will help to ensure that the strategies and interventions it contains will be sustainable. In doing so, it will satisfy a number of sustainability requirements to be placed at the heart of the development of strategic plans.
- 1.1.2. This SA represents the second stage of the SA process, following the SA Scoping Report (see **Appendix C**) which determined issues to be included in the SA.

1.2 Sustainability Appraisal

- 1.2.1. SA is a systematic process that is undertaken during the preparation of a plan. Its role is to promote sustainable development by assessing environment, social and economic impacts as well as mitigating any potential adverse effects that the plan may otherwise have.

1.3 Strategic Environmental Assessment

- 1.3.1. Strategic Environmental Assessment (SEA) is used to describe the application of environmental assessment to plans and programmes in accordance with the Environmental Assessment of Plans and Programmes Regulations (known as the 'SEA Regulations' [For more information see: UK Government SI 2004 No.1633: [The Environmental Assessment of Plans and Programmes Regulations 2004](#). [online] [Accessed May 2021]).
- 1.3.2. These regulations place an obligation on local authorities to undertake a SEA for certain plans and programmes, including the policies and implementation of all LTPs (of which the WSTP4 is). Local Transport Authorities (in this case WSCC) should ensure that the SEA is an integral part of development and delivering their LTP.

2 The West Sussex Transport Plan

2.1 Background

- 2.1.1. The WSTP4 will cover all transport policy and implementation of strategies and interventions within West Sussex between 2022 and 2036 (a 15-year period). The SA aims to ensure that this is carried out within the context of tightening environment, social and economic constraints.
- 2.1.2. WSTP4 is to be prepared in response to the Transport Act 2000 (as amended by the Local Transport Act 2008) under which local transport authorities are required to produce a Local Transport Plan (LTP). WSCC have written three previous LTPs (covering 2001-2006, 2006-2011 and 2011-2026).
- 2.1.3. Transport Authorities may replace LTPs as they see fit, the only stipulation being that the new plan is in place before the current plan expires (WSTP3 is set to expire in 2026).
- 2.1.4. It is open to Local Authorities (LAs) to decide whether the implementation and long-term strategy should be dealt with in one document, or as two separate documents. WSTP4 is comprised of a short term Action Plan and long-term strategy set out as follows:
 - Thematic Transport Strategies (short, medium and long term over 2022-2036); and
 - Area Transport Strategies (short, medium and long term over 2022-2036).
- 2.1.5. Developing the strategy element of the WSTP to cover the period of 2022-2036, will allow transport policy to align with other West Sussex and surrounding LA development plan documents therefore reducing any potential future discrepancies.
- 2.1.6. The area transport strategies will include a set of transport issues and a strategy and priorities for each local plan area in West Sussex. It will be informed by deliverability, but also by available funding. The short term priorities are included in an Action Plan. Details on all of these are contained within the WSTP.
- 2.1.7. As part of the WSTP4 and the SA action planning the individual measures chosen, plus their cumulative ability to achieve the WSTP and SA/SEA objectives and strategies will be monitored, and negative impacts avoided or minimised as envisioned.
- 2.1.8. The Plan will be reviewed at least every five years and monitored annually. The strategies will be reviewed at least every five years and the Action Plan will be updated annually to reflect changes in national and local policy as well as progress towards achieving vision, objectives and priorities.

2.2 Purpose of the New WSTP

- 2.2.1. WSCC has a solid foundation on which to build the WSTP after three successful LTPs. The WSTP4 will provide a vital tool in helping to deliver a place-shaping agenda. It will provide a clear strategic approach through five thematic strategies and eight area transport strategies that will be delivered within the Plan period.
- 2.2.2. As part of the WSTP process and a purpose of the subsequent vision and objectives the following challenges were identified. A principal purpose of WSTP is to look at issues and improvements relating to these issues:
 - Transport Issues:

- Travel behaviour in West Sussex is dominated by car travel and electric vehicles make up a very small proportion of the total number of vehicles;
 - The County Strategic Road Network has capacity pinch points and road safety issues which reduce its efficiency leading to congestion, pollution and rat running on less suitable routes;
 - Major schemes and improvements are planned to mitigate development but will require additional funding to address pre-existing issues and improvements may have consequential impacts that need to be managed;
 - Gatwick Airport is a major international gateway that attracts passengers and employees from a wide area and surface access can have adverse impacts on communities that share routes to the Airport;
 - There are potential opportunities and consequential impacts on nearby communities from planned or potential major projects such as Gatwick Airport Station and Gatwick Airport expansion;
 - The rail network provides good services to London but there are capacity, journey time and quality issues on West Coastway services that mean the rail network is not always the preferred choice for travel between West Sussex towns and to surrounding cities;
 - There are potential opportunities and consequential impacts on nearby communities from planned or potential major projects such as the Brighton Main Line upgrades;
 - COVID-19 has had a dramatic impact on travel behaviour. It is unclear what the long-term impacts will be on rail and bus demand;
 - Bus network punctuality and efficiency is an issue due to congestion on routes into and within urban areas;
 - Public transport in rural areas is not commercially viable which may get worse as travel patterns change and new mobility solutions emerge. The cost of public transport can be a barrier to accessibility;
 - The footway network is extensive (7,497km) however there are only 74km of cycleway in West Sussex and severance can be particularly problematic for some users such as equestrians;
 - Public acceptance of road space reallocation particularly when levels of cycling and walking are low compared to motorised transport; and
 - Costs of improvements are likely to outweigh funding availability.
- Environment:
- Travel patterns in West Sussex are dominated by use of vehicles that use fossil fuel propulsion which contributes to climate change and the pace of decarbonisation is not currently fast enough to meet the Government's climate change ambition to achieve net zero carbon by 2050;
 - Usage of the transport network has negative impacts (e.g. air and noise pollution) on the local natural environment, including protected areas;
 - Improving the transport network may require land that is protected or have negative impacts on protected areas, which may preclude or limit the available options;

- Large areas of the County are protected for their landscape, ecological, or historic characteristics, some of which are of international importance; and
- The transport network in West Sussex is vulnerable to the weather, particularly increased extreme events due to climate change.
- Social:
 - Growing and ageing population expected to increase most in existing settlements, as well as across the Coastal West Sussex area which already has a higher proportion of older people, increasing demands on transport infrastructure and services;
 - Risk of isolation in rural areas as public transport has viability challenges and there is a need to travel to access some services which has a disproportionate effect on those groups that depend on these services and public transport;
 - Transport infrastructure can cause severance and accessibility issues, which prevent access to green and blue spaces, and result in unhealthy lifestyles due to limited opportunities for active travel; and
 - Use of the transport network creates air quality, noise and light pollution that can have adverse public health and wellbeing impact.
- Economic:
 - The performance of the West Sussex economy in terms of output and productivity varies spatially. The Coastal West Sussex area typically underperforms compared to the Gatwick Diamond which benefits from the strongest transport links to London and the rest of the UK and proximity to Gatwick Airport; and
 - Planned development is expected to take place, particularly in the Coastal West Sussex and Gatwick Diamond areas and there are regeneration initiatives in some coastal towns which could increase commuting if suitable jobs are not created at a similar rate to housing delivery.

2.2.3. The COVID-19 pandemic has had a significant adverse impact on the West Sussex economy, particularly on leisure and tourism and in areas such as Crawley, Horsham and East Grinstead, where the travel industry surrounding Gatwick Airport are dependent on these travel industries.

WSTP Overarching Strategies

- 2.2.4. The WSTP initially considered implementing one of the following overarching strategies:
- Local Living:
 - Prioritise interventions and approaches that reduce the need to travel and support short distance trips;
 - Growth related increase in trips to be offset by a reduction in trip length and frequency so total trips outcome is neutral;
 - Focus interventions on larger settlements where trip distances are shorter to increase NMU mode share; and
 - Improve bus network coverage in rural areas.
 - Connecting Economic Centres:

- Prioritise interventions and approaches that help to keep people and goods moving, particularly on the strategic transport network;
 - Growth related increase in trips to be accommodated through increase in highway capacity, rail and bus mode share resulting in longer and more frequent trips so the total trips numbers will see a major increase; and
 - Focus interventions on inter-urban journeys and improve bus network quality in urban areas.
- Protecting Places and Communities:
 - Prioritise interventions and approaches that reduce impacts on communities and the environment;
 - Trip length and frequency to remain neutral but growth-related increase in trips results in slight increase in total trips; and
 - Focus interventions to increase the rail and NMU mode share.

- 2.2.5. Through developing WSTP under the above headings, it is intended that the recommendations of the Stern Review on the Economics of Climate Change [For more information see: UK Government (2006) [Stern Review on the Economics of Climate Change](#). [online] [Accessed May 2021]], the Eddington Transport Study [For more information see: DfT (2006) [the Eddington Transport Study](#). [online] [Accessed May 2021]] and the King Review of Low Carbon Cars [For more information see: UK Government (2007) [King Review of Low Carbon Cars](#). [online] [Accessed May 2021]] will be delivered. A good transport system is an imperative in building and developing sustainable communities, if developed correctly it will contribute and aid in many other ways; such as helping to provide safer and stronger communities, a healthier population, better equality and social inclusion, as well as helping to achieve environmental targets and economic prosperity. However, transport is not an end to itself; the WSTP will need to be integrated with other policies such as statutory development plans. It will be formulated accordingly:
- Set transport in its wider context reflecting other priorities; and
 - Set a framework for monitoring, delivering and managing transport infrastructure.

2.3 WSTP Objectives

- 2.3.1. The implementation and development of a sustainable transport system will help bring about opportunities to enhance the County. Consideration must be given throughout the development of the WSTP4 to the following overarching vision in order to achieve this:
- “A West Sussex transport network in 2036 that works for communities in the Coastal West Sussex, Gatwick Diamond and Rural West Sussex economic areas by helping to address the spatial economic challenges of the County, level up the coastal economy and provide access to employment and services countywide.*
- The transport network will be on a pathway to net zero carbon by 2050 through mass electrification, reduced use of fossil-fuels and local living. It will also be safer and more efficient overall with more walking, cycling and use of public or shared transport and less congestion on major routes that connect West Sussex towns with Gatwick Airport, London and nearby cities.*

The transport network will connect communities and allow residents to live healthy lifestyles with good access to the West Sussex coast and the protected South Downs, High Weald and Chichester Harbour.

Active travel modes, public or shared transport will be attractive options in built up areas and between towns, and rural communities will have access to the services they need.

Transport impacts such as air pollution, noise and rat-running on adjacent communities and the environment will be minimised to protect a quality of life that reflects the characteristics of the County.”

2.3.2. Transport objectives for the WSTP have been formulated. These have the objective of improving the quality of life of communities in West Sussex by 2036. The objectives relate to issues identified in the WSTP evidence base and relate to economic, social, environmental and transport issues. These are as follows:

- Prosperous West Sussex:
 - Objective 1: Support sustainable economic prosperity across the County by levelling-up underperforming areas and recovering from the COVID-19 pandemic; and
 - Objective 2: Support development and regeneration plans across the County through strategic investments, particularly in sustainable modes of transport, at the right time and place to ensure the transport network is fit for the future.
- Healthy West Sussex:
 - Objective 3: Accommodate the needs of an ageing population that is expected to grow most in existing settlements in the Gatwick Diamond and Coastal West Sussex areas;
 - Objective 4: Avoid where possible and minimise air, noise and light pollution from use of the transport network to minimise impacts on public health and well-being;
 - Objective 5: Ensure the transport network allows residents and visitors to live healthy lifestyles with good access to green and blue spaces, particularly the West Sussex coast and the protected South Downs, High Weald and Chichester Harbour; and
 - Objective 6: Ensure rural communities can accessing local services or nearby towns.
- Protected West Sussex:
 - Objective 7: Enable the transport network to achieve net zero carbon by 2050;
 - Objective 8: Avoid where possible and minimise the impacts of the transport network on natural resources and on the natural, built and historic environment;
 - Objective 9: Improve the transport network whilst conserving and enhancing biodiversity; and
 - Objective 10: To monitor and adapt infrastructure to the effects of climate change.
- Connected West Sussex:
 - Objective 11: Reduce the need to travel by car by enabling local living;
 - Objective 12: Improve the efficiency of the County Strategic Road Network, particularly east-west routes including A27, through targeted improvements to address congestion, pollution, rat-running and road safety issues on strategic or local routes;

- Objective 13: Minimise the impacts on the transport network of surface access to Gatwick Airport by passengers and employees and ensure transport network improvements take the needs of other users and communities that share these routes into account;
- Objective 14: Ensure the rail network is an attractive option for travel between West Sussex towns and to surrounding cities by improving the speed and quality of West Coastway and Arun Valley Line services and capacity on the Brighton Main Line and integrating with other modes of transport;
- Objective 15: Improve bus network efficiency and integration by reducing the effects of congestion into and within West Sussex towns, particularly where there are gaps in the rail network;
- Objective 16: Ensure the bus network is customer focussed and integrated with other modes of transport to provide an attractive option for journeys to nearby towns; and
- Objective 17: Extend and improve the network of active travel facilities so it is coherent and high quality enough to make active travel an attractive, safe option for short distance trips.

2.4 Structure of the SA

- 2.4.1. The WSTP structure is heavily influenced by the developing place shaping agenda. West Sussex historically, has been divided into the three areas which dominate the County; Coastal West Sussex, the Gatwick Diamond and Rural West Sussex. Although these areas are acknowledged in the plan, the implementation phase of the plan is aligned around the development of Thematic and Area Transport Strategies for the local authorities within West Sussex.
- 2.4.2. The Thematic Transport Strategies are as follows:
- Active Travel;
 - Shared Transport;
 - Rail;
 - Access to Gatwick Airport; and
 - Road Network.
- 2.4.3. The Area Transport Strategies are as follows:
- Adur;
 - Arun;
 - Chichester;
 - Crawley;
 - Horsham;
 - Mid-Sussex;
 - South Downs National Park (SDNP); and
 - Worthing.

2.4.4. As well as incorporating comments raised in the SA Scoping Process (see **Section 3.1.1**) the SA also includes technical notes on other assessments in relation to the WSTP, these are a Habitat Regulations Assessment (HRA), Health Impact Assessment (HIA) and Equalities Impact Assessment (EqIA).

2.4.5. The structure of the SA is outlined in **Table 2-1** below:

Table 2-1 – Structure of the SA

Chapter	Description
1: Introduction	Introduces the SA and the SEA and the preparation of the WSTP.
2: The West Sussex Transport Plan	Describes the purpose, objectives, structure and implementation of the WSTP.
3: Sustainability Appraisal Methodology	The SA process, including previous work undertaken is discussed and the approach to elements of the SA assessment outlined. Details of consultation responses are also included.
4: Sustainability Context for Transport Planning in West Sussex	The baseline environment of West Sussex (in relation to transport) is summarised in relation to key environmental and social topics. From the baseline information key sustainability issues are listed for these environmental and social topics.
5: Sustainability Appraisal Framework	Outlines the Sustainability Objectives (and methodology for determining said objectives) used for the assessment element of the SA.
6: Strategic Environmental Assessment	The SEA is the assessment element of the SA. Elements of the WSTP are assessed against the established SA objectives; the WSTP Strategies, WSTP Objectives, Thematic Transport Strategies and the Area Transport Strategies. The assessment also includes the recommended mitigation and monitoring measures to implement through the lifetime of the WSTP through a SEA Action Plan.
6: Habitats Regulations Assessment	Summary of HRA process undertaken to date.
7: Health Impact Assessment	A note on the implications of the WSTP from a human health perspective. The note also discusses the potential requirements for HIA throughout the lifetime of the WSTP.

Chapter	Description
9: Equality Impact Assessment	A note on the implications of the WSTP from an Equalities Act perspective. The note also discusses the potential requirements for EqlA throughout the lifetime of the WSTP.

2.5 Implementation of the SEA and WSTP

- 2.5.1. The development of the WSTP and incorporation of recommendations from the SEA is shown in a lifecycle flow diagram below (**Figure 2-1**). The studies and inputs required for the implementation of an intervention as a result of a Thematic or Area Transport Strategy can be seen at the end of the process.

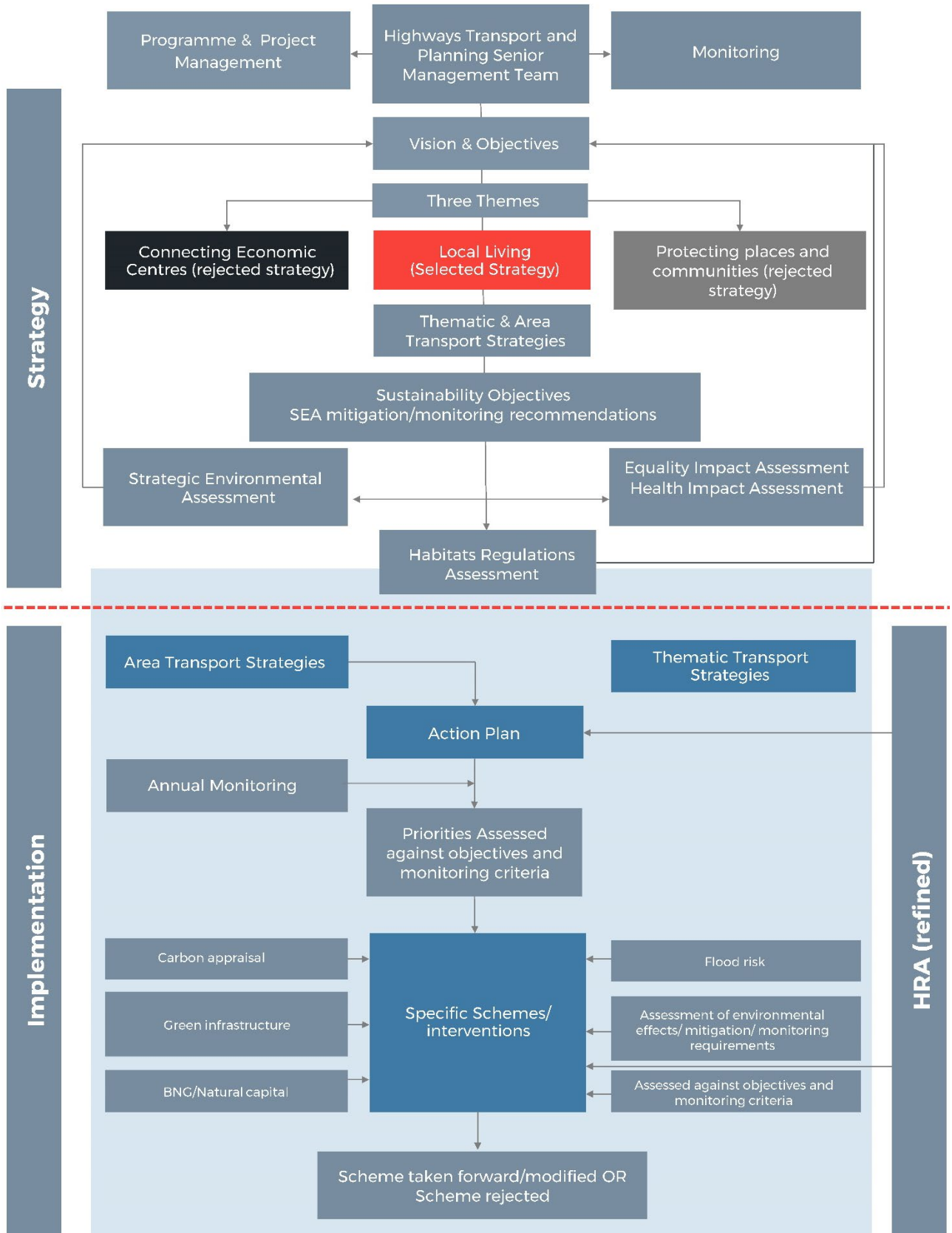
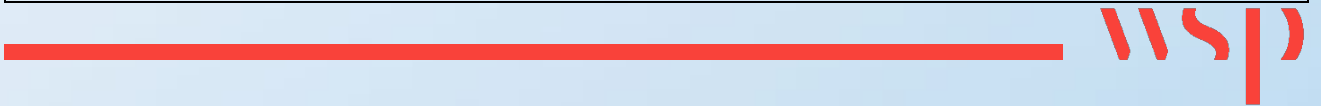


Figure 2-1 - Consideration of SEA and Environment in the Local Transport Plan Process

3

METHODOLOGY



3 SA Methodolgy

3.1 Introduction

- 3.1.1. 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. The effects at this stage will remain at a strategic level.
- 3.1.2. The approach adopted for the SEA of the WSTP4 follows that set out in the Practical Guide to SEA [For more information see: Office of the Deputy Prime Minister (2005) [A Practical Guide to the Strategic Environmental Assessment Directive](#) [online]. [Accessed May 2021]] and the Planning Practice Guidance to SEA [For more information see: Department for Communities and Local Government (2015) [Strategic Environmental Assessment and Sustainability Appraisal](#) [online]. [Accessed May 2021]]. It involves the development of an assessment framework comprising series of SEA objectives, assessment criteria and indicators. This framework is developed from an understanding of environmental problems and opportunities identified through a review of existing baseline information and a review of other plans, programmes and environmental protection objectives relevant to the plan area (West Sussex) and subject matter (transport).
- 3.1.3. The steps of the SEA process and the relationship with the WSTP4 development process is shown in **Appendix B**. This report is the product of stages B and C, selecting and assessing options for the SA and producing an Environmental Report for consultation.

3.2 Stage A: Scoping

- 3.2.1. As per the SEA Regulations and Process (see **Appendix A** and **Appendix B** respectively), this report includes the results of the WSTP SEA SA Scoping Report completed in June 2021, taking into account amendments as per the comments received in the consultation period for the 2017 SA Scoping Report (as part of the previous SA update process), no further comments were received following consultation carried out between 20th April and 25th May 2021. A late response from Natural England was received on 18th June 2021. A summary of these comments and how they have been addressed is included in **Section 3.4**.
- 3.2.2. The SA Scoping report sets the context and scope of the SA through:
 - Identification of the likely options for delivery of the WSTP;
 - A review of relevant policies, plans and programmes;
 - Identification of baseline information and sustainability issues; and
 - Development of a framework for the SA (the sustainability objectives).

3.3 Stage B: Assessing Effects

- 3.3.1. Each element of the WSTP was assessed against each SEA objective, and a judgement was made with regards to the likely effect that the element would have on that objective. The assessment covered the following key areas:
 - The overarching strategy of the WSTP and alternatives;

- The WSTP Objectives;
- The Thematic Transport Strategies; and
- The Area Transport Strategies.

3.3.2. The assessment (presented in **Chapter 5**) of the WSTP is presented in a matrix format shown in **Table 3-1** below alongside a more development explanation of findings:

Table 3-1 – Matrix Coding for the SA Assessment

Matrix Coding	Explanation
++	Likely significant positive effect
+	Likely positive effect
+ / -	The effect is both positive and negative
-	Likely negative effect
--	Likely significant negative effect
?	The effect is uncertain
0	Negligible or no effect

3.3.3. Following the findings of the assessment, **Section 6.6** and **Section 6.7** details mitigation and monitoring measures for the WSTP.

3.4 Stage C and D: Reporting and Consultation

3.4.1. This report sets out the results of the SA and constitutes the Environmental Report under the SEA Regulations.

3.4.2. In 2021, at the SA Scoping Stage, the following bodies were consulted:

- Environment Agency;
- Historic England; and
- Natural England.

3.4.3. Comments were received from Natural England on the SA Scoping Report and are outlined in **Table 3-2** below (also see **Appendix E**), along with the responses to said comments.

Table 3-2 – Consultee Comments and Response for Natural England

Section	Comment	Response
General	We agree with the point raised in 3.2.3 that transport networks offer an opportunity to improve ecosystem delivery through biodiversity net gain, ecological connectivity and ecosystem services.	n/a
Ecosystem and Natural Capital and Biodiversity, Flora and Fauna	Natural England support objectives to protect and enhance the natural environment, including biodiversity, geodiversity and landscape. We advise that these objectives could be made more specific, including specific values and targets which make them realistically achievable.	At this point in the WSTP process WSCC does not have a certainty of funding for implementation on which to structure targets and indicators around. At the time of writing the WSTP does not contain targets and indicators on biodiversity, geodiversity and landscape (with the exception of BNG) but WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable.
Ecosystem and Natural Capital and Biodiversity, Flora and Fauna		
Ecosystem and Natural Capital and Biodiversity, Flora and Fauna	In section 3.5.6 it is acknowledged that international designated sites may be affected by development, including transport and infrastructure. We support the objective to protect and enhance designated sites. We advise that as part of this, the cumulative impacts arising from plans and policies are considered.	Cumulative effects on internationally designated sites are assessed and described within the Habitats Regulation Screening Assessment report (HRSA).

Section	Comment	Response
	<p>We advise that the scoping report contains suitable criteria to test the plan’s policies and proposals for negative impacts on European Sites and Sites of Special Scientific Interest (SSSIs). Specifically, we advise that suitable indicators are included which ensure that the impact of the plan’s policies on European Sites and SSSIs are included in which will be used to quantify impacts.</p>	<p>Mitigation measures (see Section 6.6) recommend specific assessment of impacts on European Sites and SSSIs at an intervention level where practicable as well as plan level mitigation and monitoring for the WSTP (see Section 6.6 and Section 6.7). At the time of writing the WSTP does not contain targets and indicators on European Sites and SSSIs but WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable.</p>
	<p>Natural England recommend that the report includes advice to remove or amend proposals and policies which do not adequately protect SSSIs as well as those which are likely to have a significant effect in a European site or an effect on the integrity of a European site. We advise that where impacts to designated site cannot be ruled out, alternatives are assessed in line with the mitigation hierarchy.</p>	<p>Mitigation measures (see Section 6.6) state the avoidance of impacts on SSSIs and European Sites and recommend the use of the mitigation hierarchy for alternatives as stated. The flow diagram shown in Figure 2-1 demonstrates the process of removing a non-suitable intervention.</p>
<p>Ecosystem and Natural Capital and Biodiversity, Flora and Fauna</p>	<p>It is acknowledged in the report that Species of Principal Importance and Protected Species may be impacted directly and indirectly by construction and operation. Where location data from plans and policies allow for the assessment of Protected and Priority species, we advise that the main implications are identified and considered, these should be cross-referenced through the habitat regulations assessment if appropriate.</p>	<p>This is covered in the HRSA report.</p>

Section	Comment	Response
Ecosystem and Natural Capital and Biodiversity, Flora and Fauna	Natural England notes that although Priority Habitats are mentioned in section 3.5.5 and mapped on Figure A3, but they are not addressed in the objectives. We advise that the impact of the plan to Priority Habitats is specifically addressed in the wording of the objectives to ensure impacts are considered.	Sustainability Objective 4 has been adjusted to reflect the inclusion of priority habitats and these have been considered throughout the SEA assessment.
Ecosystem and Natural Capital and Biodiversity, Flora and Fauna	We advise that criterion is included to test policies and proposals for adverse effects to local sites of biodiversity and geodiversity interest.	Monitoring recommendations for Sustainability Objective 4 (see Section 6.7) establish the need to establish monitoring of potential adversely affected protected areas (including local sites). At the time of writing the WSTP does not contain targets and indicators on biodiversity and geodiversity (with the exception of BNG) but WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable.
Landscape and Townscape	Regarding the objectives for protected landscapes, we acknowledge and support the aim to protect and enhance. We advise that the management plan for the relevant protected landscapes is referenced as baseline information and assessment considers the specific objectives for the protected landscape.	Relevant management plans and policies are detailed in Section 4.1 .

Section	Comment	Response
Landscape and Townscape	Criteria and indicators to test if the plans and policies have adverse effects on protected landscapes should be part of the assessment. These indicators should include aspirational targets to conserve and enhance the natural beauty and amenity of protected landscapes in proposals to monitor the plan. We advise that cumulative impacts are also considered as part of the assessment.	At the time of writing the WSTP does not contain targets and indicators on landscape. WSCC will consult further with NE to agree targets and indicators to be applied to interventions when applicable.
Landscape and Townscape	We advise that the report recommends that any policies or proposals that do not afford great weight to conserving landscape and scenic beauty within protected landscapes, or fully consider the impacts of development close to them, are removed from the plan or modified.	Mitigation measures (see Section 6.6) recommend the avoidance of impacts on landscape and visual receptors.
Landscape and Townscape	We support that the report includes objectives to protect and improve access to the natural environment. However, we advise that indicators to improve the provision of natural greenspace are included. We recommend the use of Access to Nearby Greenspace Standard (ANGSt) where appropriate and the consideration of green infrastructure and its protection and enhancement through appropriate objectives and/or indicators.	The use of ANGSt has been included in the mitigation recommendations for Sustainability Objective 5 (see Section 6.6). At the time of writing the WSTP does not contain targets and indicators on greenspace provision (with the exception of BNG) but WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable.

Section	Comment	Response
Soils	We support that the report includes an objective to avoid/minimise impacts to soil, particularly in areas of best and most versatile agricultural land. However, we advise that specific measures and targets are used to quantify mitigation. We also advise that alternatives in areas where development on best and most versatile land cannot be avoided are considered.	Mitigation and monitoring measures (see Section 6.6 and Section 6.7) appropriately address this in the SEA context by recommending the development of a monitoring framework to quantify impacts of the WSTP over the lifetime of the plan. At the time of writing the WSTP does not contain targets and indicators on soils and agricultural land but WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable.
Further Comments	Found in Annex A (see Appendix E).	Incorporation of the recommended mitigation measures would be applied on a case by case basis at the point of implementation of interventions. Figure 2-1 shows the process for intervention selection, and point of application of more specific mitigation measures.

3.4.4. An SA Scoping Consultation Stage was also undertaken in 2017 and comments were received from the following bodies. The comments received and how they were addressed in the 2017 SA Scoping Report are outlined in **Appendix D**:

- Crawley Borough Council;
- South Downs National Park Authority;
- Sussex Air; and
- Worthing Borough Council.

3.5 Consideration of Alternatives

- 3.5.1. The SEA Regulations requires that consideration of options and alternatives are incorporated into a SEA. It is common practice for a SEA to consider what environmental effects would occur without the implementation of the plan (in this case the WSTP4). This is done to allow the assessment of the likely effects that the implementation of the plan would have compared to any alternative plans.
- 3.5.2. For the WSTP4, two alternative over-arching WSTP strategies, 'Connecting Economic Centres' and 'Protecting People and Places' are considered within the assessment as alternative plans (see **Section 6.2**).

3.6 Consideration of Cumulative, Synergistic and Indirect Effects

- 3.6.1. The SEA Regulations requires the inclusion of cumulative, synergistic and secondary (indirect) effects within the assessment.
- 3.6.2. Cumulative effects occur when multiple different schemes or plans have a significant magnification of effects on environmental receptors (for example, noise levels on residents. Additionally, cumulative effects also refer to where a scheme is likely to have a significant magnification of multiple different effects on a single receptor (for example, increased noise levels as well as reduced visual amenity on residential receptors). This second definition is also known as synergistic effects.
- 3.6.3. Many adverse environmental effects result from the accumulation of multiple small and indirect effects. These effects are difficult to address on a project-by-project basis within the EIA process. Instead, they can be most effectively addressed within the SEA. Cumulative effects have been considered throughout the SA assessment due to the SA assessing the combined effect of interventions in the Thematic and Area Transport Strategies.

3.7 The WSTP in combination with Other Plans

- 3.7.1. Cumulative effects may also occur as a result of activities and measures in other (existing and future) policies, plans, programmes and schemes such as strategic development of housing and other economic development. Those measures and schemes that are likely to have direct (positive and negative) effects on some of the areas being addressed in the WSTP4 will be identified where possible.

3.8 Preparation of the Sustainability Appraisal Report

- 3.8.1. This report has been prepared in coordination with WSCC's LTP team. The SA combines the SA framework and SEA analysis of the WSTP4 with other key assessments (see **Table 2-1**).
- 3.8.2. The consultation period on the SA ended in October 2021. Subsequently the SA and LTP have been updated in accordance with stakeholder comments.

3.9 Risk and Uncertainty

- 3.9.1. The SEA Regulations require that measures to prevent, reduce and offset any adverse environmental implications are included within the Environmental Report (the SA). During the SA process, risks and uncertainties have been identified and mitigation implemented to reduce the accumulation of imprecision. However, as the exact nature of the impact is not often known it has not been possible to include detailed mitigation measures in relation to sites and schemes. The following forms of mitigation have been included:
 - Alterations to the interventions;
 - Additional interventions;
 - Technical measures to be applied in the intervention implementation stage;
 - Identification of issues to be addressed in the EIA process for specific schemes;
 - Proposals for amendments to other plans and programmes; and
 - Acknowledgement and assessment of risks and uncertainties not possible to mitigate within the WSTP (and SA) and proposed methods for addressing these.

3.10 Monitoring Implementation of the Plan

- 3.10.1. The purpose of monitoring is to measure the environmental outcome of a plan (e.g. reduction in greenhouse gas emissions) and the performance of a plan against pre-defined environmental objectives, targets, or inputs (e.g. improved public transport facilities). If monitoring is carried out effectively it will contribute to managing uncertainty; improving knowledge; enhancing transparency, accountability and managing environmental information.
- 3.10.2. A robust monitoring strategy has been developed as part of the WSTP4. Monitoring will not be carried out unnecessarily and if monitoring programmes are already established for plans and programmes within the authority, data will be appropriately used. To determine the monitoring strategy the following approach, suggested by DfT, will be adopted:
 - What needs to be monitored?
 - What type of information is required?
 - What are the existing sources of monitoring information?
 - Are there any gaps in existing information, how can these be filled?
 - When would remedial action be required and what are these actions?
 - Who is responsible for the monitoring activities and what is the format for documenting results?

4 Sustainability Context for Transport Planning in West Sussex

4.1 Review of Plans, Policies and Programmes

- 4.1.1. The SEA Regulations requires an analysis of the WSTP relationship with other relevant plans, policies and programmes and of the environmental protection objectives, 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.
- 4.1.2. This SA outlines the key points that the WSTP should seek to:
- Reduce the need to travel and reduce road traffic in the long term;
 - Encourage less polluting forms of transport, particularly walking and cycling;
 - Integrate different transport modes, including for freight transport;
 - Improve the vitality of, and access to, existing centres and regeneration areas;
 - Reduce isolation and social exclusion, especially for those without a car;
 - Respond to and influence the focus areas for development outlined in development planning documents;
 - Use of a range of measures to tackle emissions and pollution;
 - Include a climate change strategy;
 - Set targets; and
 - Provide policies on education for road safety and to reduce transport demand.
- 4.1.3. In order to fulfil this requirement, this section identifies plans, programmes, and external sustainability objectives that are relevant to transport planning within West Sussex. The purpose of this is to document how WSTP4 is affected by outside factors and suggest ideas for how constraints can be addressed.
- 4.1.4. WSTP4 will be affected by, and will affect, a wide range of other relevant plans, programmes and environmental objectives both within and outside WSCC's jurisdiction. Identifying these plans and programmes allows for WSTP4 to take advantage of potential synergies and to deal with inconsistencies and constraints.
- 4.1.5. A large number of international, national, regional and local level policies, plans, programmes, and environmental objectives are relevant to WSTP4. **Table 4-1** shows these key policies, plans, programmes and environmental objectives of relevance.

Table 4-1 – Key Policies, Plans and Programmes

Policy Level	Document
International	Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) EU Ambient Air Quality Directive (2008/50/EC) The Paris Agreement (2015) United Nations: Transforming our World: The 2030 Agenda for Sustainable Development (2015) EC: The Water Framework Directive (2000/60/EC) EC: The Waste Framework Directive (2008/98/EC) and Amendments EC: EU Green Paper: A 2030 Framework for Climate and Energy Policies (2013) EC: EU Adaptation Strategy (2013) EC: EU Biodiversity Strategy to 2020 – Towards Implementation (2011)

Policy Level	Document
National Level	<p>The Environment Act 2021</p> <p>The Climate Change Act 2008</p> <p>The Conservation of Habitats and Species Regulations 2017</p> <p>Planning for the Future (White Paper) 2020</p> <p>Defra: A Green Future: Our 25 Year Plan to Improve the Environment (2018)</p> <p>MHCLG: National Planning Policy Framework (2019)</p> <p>DfT: Decarbonising Transport. A Better, Greener Britain (2021)</p> <p>DfT: National Policy Statement for National Networks (2014)</p> <p>DfT: Road to Zero Strategy 2018 (2018)</p> <p>DfT: Decarbonising Transport: Setting the Challenge (2020)</p> <p>DBEIS: The Clean Growth Strategy (2017)</p> <p>Defra: Noise Policy Statement for England (2010)</p> <p>Defra: Noise Action Plan – Roads (2019)</p> <p>Defra: Clean Air Strategy (2019)</p> <p>Defra: Clean Air Zone Framework (2020)</p> <p>UK Government: England Biodiversity Strategy Climate Change Adaptation Principles (2008)</p> <p>UK Government: Update on the 25 Year Environmental Plan</p> <p>DfT and Defra: National Air Quality Plan: Tackling Roadside Nitrogen Dioxide Concentration (2017)</p> <p>Natural Capital Committee: The State of Natural Capital (2020)</p> <p>Natural England: Accessible Natural Green Space Standards in Towns and Cities: A review and toolkit for their implementation (2003)</p> <p>Natural England: Nature Nearby: Accessible Green Space Guidance (2010)</p> <p>Landscape Institute: Green Infrastructure: An integrated approach to landscape use (2013)</p> <p>Ancient Monuments and Archaeological Areas Act 1979</p> <p>DfT: Cycling and Walking Plan for England (2020)</p> <p>DfT: Cycling and Walking Investment Strategy 2016 (2016)</p> <p>UK Government: Road to Zero (2018)</p> <p>Public Health England: Review of Interventions to Improve Air Quality and Public Health (2019)</p> <p>Defra: Government Clean Air Strategy (2019)</p> <p>Planning (Listed Buildings and Conservation Areas) Act 1990</p> <p>DfT: The Inclusive Transport Strategy (2018)</p> <p>DfT: Future of Mobility: Urban Strategy 2019 (2019)</p> <p>DfT: Transport Investment Strategy 2017 (2017)</p> <p>UK Government: Planning for the Future White Paper (2020)</p>
Regional Level	<p>TfSE: Transport Strategy 2020 to 2050 (2020)</p> <p>TfSE: Economic Connectivity Review (2018)</p>

Policy Level	Document
County Level	<p>WSCC: West Sussex Climate Change Strategy (2020)</p> <p>WSCC: West Sussex Tree Plan (2020)</p> <p>WSCC: West Sussex Transport Plan 2011-2026 (LTP3) (2011)</p> <p>WSCC: Landscape Character Assessment of West Sussex (2003)</p> <p>WSCC: Economic Growth Plan 2018-2023 (2018)</p> <p>WSCC: West Sussex Draft Economy Reset Plan (2020)</p> <p>WSCC: Electric Vehicle Strategy 2019-2030 (2019)</p> <p>WSCC: The West Sussex Walking and Cycling Strategy 2016-2026 (2016)</p> <p>WSCC: The Rights of Way Management Plan 2018-2028 (2018)</p> <p>WSCC: Bus Strategy 2018-2026 (2018)</p> <p>WSCC: West Sussex Sustainable Modes of Travel Strategy 2019/2020 (2019)</p>
Local Level	<p>SDNPA: Climate Change Adaption Plan (2020)</p> <p>SDNPA: Partnership Management Plan (2020)</p> <p>Chichester Harbour AONB: Management Plan 2019-2024 (2019)</p> <p>High Weald AONB: Management Plan 2019-2024 (2019)</p> <p>SDNPA: South Downs Green Infrastructure Framework (2016)</p> <p>Coast to Capital: The Coast to Capital Strategic Economic Plan 2018-2030 (2018)</p> <p>Local Plans for each of the eight local planning areas in West Sussex</p>

4.2 Baseline Information

Introduction

- 4.2.1. The SEA Regulations requires an examination of the current state of the environment and the likely evolution of the environment without the implementation of the Plan, and the environmental characteristics of areas likely to be significantly affected.
- 4.2.2. This section identifies the baseline information that is relevant to the preparation of the WSTP. The purpose is to provide an evidence base for sustainability issues, effects prediction, and to identify monitoring requirements. The information must be relevant and appropriate to the spatial scale of the WSTP area.
- 4.2.3. Existing environmental and sustainability data was collected from a wide range of sources, including national government/agency websites, census data, third party data sources, previous LTPs and other plans and strategies to provide a comprehensive baseline for West Sussex.
- 4.2.4. The identification of baseline data helps to identify the key issues to be addressed, which has led, together with the review of plans, programmes and external sustainability objectives to the development of the Sustainability Objectives.

- 4.2.5. A list of baseline data collected can be found in the SA Scoping Report (see **Appendix C**), containing information on the following topics:
- Natural Capital and Ecosystem Services;
 - Materials, Minerals and Waste;
 - Soils;
 - Biodiversity, Flora and Fauna;
 - Air Quality;
 - Climate;
 - Noise;
 - Landscape and Townscape;
 - The Historic Environment;
 - Water;
 - Population;
 - Health; and
 - Economy.

West Sussex

- 4.2.6. West Sussex is a rural county with high car use and ownership. The main transport connections are part of the London to south-coast, east-west coastal connections and Gatwick airport local connections. WSCC's carriageway assets are made up of 4,034 km of road of which approximately 840km is classified A and B class, 7.5 million m² of footways, 726 road bridges, 34 subways and 60 footbridges. The road network experiences capacity, accessibility and connectivity issues throughout. Particular issues of traffic, bottlenecks and capacity overflow at major junctions and urban areas. The county strategic road network connects all ten major towns in West Sussex (Bognor Regis, Burgess Hill, Chichester, Crawley, East Grinstead, Haywards Heath, Horsham, Littlehampton, Shoreham and Worthing). The core roads as part of this network are the M23, A27, A22 and A2300 and parts of A23, A24, A259, A264, A272, A280, A281 and A283. The proportion of electric vehicle usage is low in West Sussex and there is limited charging infrastructure (fewer than 100 publicly accessible charging points).
- 4.2.7. The County rail network provides connections east towards Brighton & Hove and East Sussex, west towards the Solent cities and north towards London via Gatwick Airport. Not all these routes have direct connections, some routes are relatively slow and rail capacity is a major issue, in particular the route to London, and there are areas with poor connectivity (e.g. between Gatwick Airport, Kent and the Thames Valley).
- 4.2.8. The County is rural in nature and as a result the public transport network is dispersed, disconnected and unreliable which limits accessibility to areas and services. It is noted that localised bus services are regarded highly by users, however, the cost of public transport is a barrier to accessibility. The public transport bus network is overwhelmingly commercially run without public investment and the numbers of bus services are being reduced.

- 4.2.9. Gatwick Airport is located in the north-east of West Sussex and is the key economic driver in the area. Currently it is poorly connected to most of the County other than by car. Fast, frequent rail connections only exist between stations on the Brighton Main Line and the London area.
- 4.2.10. There are over 4,000 kilometres (2,500 miles) of PRow in West Sussex, which includes footpaths (1717 miles), bridleways (733 miles), restricted byways (81 miles) and byways open to all traffic (BOATs) (8 miles). There are also long-distance trails which partially follow PRow such as the South Downs Way and Downs Link. In the near future, the planned England Coast Path will be a new long-distance trail through the County. There are a mixture of urban and rural PRow. The paths on the coastal plain are mainly footpaths so there are very limited opportunities for users other than by walkers. Whilst the NMU network is extensive, less than 1% is dedicated to cycleways. Although there is demand for more off-road cycling and horse-riding opportunities using the PRow network given the flat terrain, the highly populated area and the busy nature of the road network, bridleway off-road cycling or horse-riding opportunities are very limited. The existing bridleways do not link together well which limits opportunities to use to bridleway network to those users who are also able to use the road network.
- 4.2.11. Despite these problems, the existing network does provide sustainable options for travelling to school, to work and to local services. It also contributes to people being able to lead a healthy lifestyle via the provision of areas suitable for NMUs to undertake activities such as walking, cycling and horse riding.

Districts

- 4.2.12. West Sussex is a predominantly rural county located in the South East region of England covering an area of 199,000 hectares with a population of 871,684 (as of 2020). West Sussex is bounded by the neighbouring counties of East Sussex, Surrey and Hampshire, as well as the City of Brighton & Hove.

Adur

- 4.2.13. Adur is a coastal district within West Sussex with the central feature of the River Adur running to the coast. The District is primarily urban in the south of the District, with Kingston-by-Sea, Shoreham-by-Sea and Southwick to the east of the River Adur and Lancing and Sompting to the west. Brighton City Airport is also located in the south of the District, adjacent and west of the River Adur. The north of the District is made up of open farmland and open fields (part of the SDNP). The A27 divides the north and south of the District and bounds the northern extent of the urban landscape. The A283 runs alongside and east of the River Arun. The West Coastway Line passes through the urban portion of the District in the south.

Arun

- 4.2.14. Arun is a coastal district within West Sussex consisting of a primarily rural environment with some major settlements on the southern coast. These major coastal settlements are Bognor Regis in the southwest and Littlehampton to the southeast. The north and central south of the District are made up of mostly farmland and woodland (north of the A27 being part of the SDNP). The areas of woodland are located north of Angmering and north and west of Arundel. The A27 is the major road within the District, passing north of Angmering and through Arundel and Fontwell. The A24 runs along the eastern boundary of the District, from Clapham to North End, while the A29 and A259 converge on Bognor Regis to the west. The West Coastway Line passes through the urban portion of the District in the south with branch lines to Littlehampton and Bognor Regis and connects with the Arun Valley Line in the Ford area.

Chichester

- 4.2.15. Chichester is a coastal district within West Sussex. Other than the City of Chichester in the south the District is mostly rural and dominated by the SDNP in the north. To the southwest of Chichester is the Chichester Harbour AONB. The A27, A259 and the A272 are the major roads in the District, running east-west. The A27 bypasses Chichester where it intersects the A259 and the A272 intersects Petworth and Rogate in the north of the District. The West Coastway Line passes through Chichester.

Crawley

- 4.2.16. Crawley is a borough in the north of West Sussex. Contained within the Borough is the town of Crawley and Gatwick Airport. The Borough is primarily an urban environment, with parks and green space both north and south of Crawley. The M23 bounds the Borough in the east and south, while the A264 bounds the Borough to the southwest and the A2011 passes through the centre of the Borough and Crawley. The Brighton Main Line and Arun Valley Line pass through Crawley and connect in the Three Bridges area.

Horsham

- 4.2.17. Horsham is a district within the centre and north of West Sussex. The District is primarily rural, comprising farmland and woodland. The northeast of the District is within the High Weald AONB and the south of the District is within SDNP. The major settlement within the District is Horsham, located in the north of the District on the boundary of the High Weald AONB. The A24 passes through the centre of the District in a north-south direction and bypasses Horsham. The A272 passes east-west through the District intersecting Cowfold and Billingshurst. The Arun Valley Line passes north-south through Horsham and the District and connects with the Mole Valley Line at Horsham.

Mid Sussex

- 4.2.18. Mid-Sussex is a district comprising the eastern extent of West Sussex. The District is primarily rural, the north of the District between East Grinstead and Haywards Heath being within the High Weald AONB, and the southern extent of the District being within SDNP. Three major settlements are within the District; East Grinstead in the north, Haywards Heath in the centre and Burgess Hill in the south. The A23 and A272 are the major roads within the District. The A272 passes east-west through the centre of the District, bypassing Haywards Heath, and the A23 passes north-south through Pease Pottage in the north and Pyecombe in the south. The Brighton Main Line passes north-south through the District and connects with the East Coastway Line at Wivelsfield. The Oxted Line provides a connection from East Grinstead northwards to London.

South Downs National Park

- 4.2.19. The SDNP is a major feature within West Sussex. Comprising large portions of the south and west of the County includes parts of Adur, Arun, Chichester, Horsham and Mid Sussex districts and Worthing Borough. The SDNP is administered by the SDNP Authority. The A24, A280, A283 and Brighton Main Line and Arun Valley Line all pass north-south through the SDNP in West Sussex, while the A27 and A272 pass east-west through the SDNP. The land-use of the SDNP is dominated by farmland and woodland, with large amounts of minor settlements and roads interspersed throughout.

Worthing

- 4.2.20. Worthing is a coastal borough within West Sussex, located south between the Adur and Arun districts. The Borough is primarily urban with the A27 and A24 passing through the urban environment. The West Coastway Line passes through the centre of the borough.

5 Sustainability Appraisal Framework

5.1 SA Framework

5.1.1. The SEA Regulations do not specifically require the use of objectives or indicators in SEA, but they are a recognised way in which effects can be described, analysed and compared. The Sustainability Objectives state what is needed, whilst indicators will measure WSTP4's performance against the objectives.

Sustainability Objectives

5.1.2. Having considered the key sustainability issues, a series of sustainability objectives have been identified and developed as part of the SA Scoping Process, which form the framework against which the WSTP objectives and implementation plans will be assessed (see **Chapter 5**).

Table 5-1 – Sustainability Objectives

Environmental Topic	Sustainability Objective	Description
Natural Capital and Ecosystem Services	1	To maintain and enhance the provision of ecosystem services from the County's natural capital and contribute to biodiversity net gain.
Materials, Minerals and Waste	2	To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.
Soils	3	To protect soils and minimise the loss of valuable agricultural and other land and improve efficiency of land use through the re-use of previously developed land and existing buildings.
Biodiversity, Flora and Fauna	4	To protect and enhance the County's biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.
Biodiversity, Flora and Fauna	5	Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.

Environmental Topic	Sustainability Objective	Description
Air Quality	6	To reduce traffic related air pollution in AQMAs and where possible enhance air quality elsewhere in West Sussex.
Climate	7	To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.
Climate	8	Ensure that the local transport network builds resilience to climate change.
Noise	9	To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.
Landscape and Townscape	10	To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.
The Historic Environment	11	To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.
Water	12	To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.
Water	13	To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.
Population	14	To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.

Environmental Topic	Sustainability Objective	Description
Health	15	To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.
Economy	16	To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.

- 5.1.3. It is good practice to test the internal compatibility of the sustainability objectives so that any conflict between them can be noted, subsequent decisions made soundly and mitigating measures decided. The results of this work were updated during the SEA process. The results can be seen in the matrix below.
- 5.1.4. In developing the matrix, the following three relationships are between objectives are considered:
- Compatible (✓) – Objectives are compatible with other, having similar aims and outcomes;
 - Incompatible (A-D (see **paragraph 5.1.5**) – Objectives are incompatible with each other, having inconsistencies between aims and objectives. In these cases possible mitigating solutions have been considered; and
 - No Link (-) – Objectives have no link or overlap.
- 5.1.5. Where objectives were found to be incompatible the following mitigations are suggested:
- A. Any intervention or activities to reduce social exclusion and increase connectivity or assist in economic connectivity/revitalisation should make an efficient use of land, resources and energy and ensure the protection of existing biodiversity, landscape, habitat quality and other assets;
 - B. Service provision in support of economic revitalisation and connectivity should make an efficient use of land, resources and energy and ensure the protection of existing biodiversity, landscape, habitat quality and other assets;
 - C. Increased accessibility to Green Infrastructure, natural capital and ecosystem services should need come at the expense of these assets;
 - D. Interventions to increase connectivity, support demographic changes or provide economic revitalisation should not have a negative impact on air quality or noise levels;
 - E. Where interventions require climate change adaptation, mitigation or resilience measures should make an efficient use of land, resources and energy while not damaging biodiversity, GI, natural capital and other important assets; and
 - F. Interventions should ensure that they are designed to benefit and not adversely impact flood risk.

Table 5-2 – Sustainability Objectives Compatibility Matrix

Sustainability Objective		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.	1																
To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.	2	✓															
To protect soils and minimise the loss of Best and Most Versatile land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.	3	✓	✓														
To protect and enhance the County’s biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.	4	✓	✓	✓													
Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.	5	✓	✓	✓	✓												

Sustainability Objective		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.	6	-	-	-	✓	-											
To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	7	-	-	-	-	-	✓										
Ensure that the local transport network builds resilience to climate change.	8	E / F	E / F	E / F	E / F	E / F	-	-									
To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	9	-	-	-	-	-	✓	✓	-								
To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	10	✓	✓	✓	✓	✓	✓	✓	E	✓							
To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	11	✓	✓	✓	✓	✓	✓	-	E	✓	✓						
To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.	12	✓	✓	✓	✓	✓	-	-	E	-	✓	✓					
To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	13	E / F	E / F	E / F	E / F	E / F	-	-	✓	-	E / F	E / F	E / F				

Sustainability Objective		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	14	B / D	B / D	B / D	B / D	B / D	D	D	-	D	B / D	B / D	B / D	F			
To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	15	B / C / D	B / D	B / D	B / C / D	B / C / D	D	D	-	D	B / C / D	B / D	B / C / D	F	✓		
To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	16	A / D	A / D	A / D	A / D	A / D	D	D	-	D	A / D	A / D	A / D	F	✓	✓	

6 Strategic Environmental Assessment

6.1 Introduction

- 6.1.1. This section presents the findings of the SA assessment covering the following areas:
- The WSTP Overarching Strategy and Alternatives;
 - The WSTP Objectives;
 - The Thematic Strategies; and
 - The Area Transport Strategies.
- 6.1.2. Mitigation and Monitoring measures are outlined in **Section 6.6** and **Section 6.7**.

6.2 Assessment of WSTP Strategy

- 6.2.1. The following summarises the assessment of the overarching WSTP Strategy ‘Local Living’, the alternative overarching WSTP Strategies ‘Connecting Economic Centres’ and ‘Protecting Places and Communities’ against the Sustainability Objectives. Further information can be found in **Table 6-1**.

Local Living

- 6.2.2. The local living strategy focuses on reducing the need to travel and prioritising interventions in areas of short distance trips such as larger settlements. As a result, the forecasted outcomes will result a significant decrease in fossil fuel car mode share (replaced to some extent with electric vehicles) as well as a decrease in trips length and frequency. Additionally, of note, rail mode share and overall trips numbers will remain unchanged. As a result of interventions, the NMU share and bus shares will increase.
- 6.2.3. The strategy, with its focus on a reduction of fossil fuel car mode share and targeted interventions in settlements including demand management and improving the efficiency of only the most strategic roads, would likely see positive impacts in relation to sustainability objectives around the following:
- Preservation of protected areas and assets;
 - Conservation of resources and increased efficiency;
 - Reductions in adverse air quality as well as noise impacts; and
 - Benefits to economic prosperity, though at a localised level (within settlements).
- 6.2.4. The positive effects of these are mostly due to the lack of physical interventions in non-urban areas, resulting in minimal land use change and the modal shifts to transport able to use the existing transport network (buses).
- 6.2.5. A negligible effect is anticipated in relation to protection of agricultural land and demographic change. This is due to the nature of the strategy focusing on more sustainable modal shifts, to reduce the effects of car mode with demographic change.

- 6.2.6. Significant negative effects on sustainability objectives are not predicted for this alternative, although a range of effects, including uncertain; negligible or a combined positive and negative effect is anticipated for the following. Of particular note here is the combination of negative and positive effects in relation to greenhouse gas emissions that will emerge as a result of the continued development of road and private vehicle based infrastructure. Details of recommended mitigation measures can be found in **Section 6.6**):
- Greenhouse Gas Emissions and Carbon Commitments;
 - Protection of soils and Best and Most Versatile land;
 - Green Infrastructure Network;
 - Landscape character and assets;
 - Cultural heritage;
 - Flood risk; and
 - Mental and physical health and well-being of the population.
- 6.2.7. The effects in relation to some sustainability objectives are uncertain due to the lack of focus of the overarching strategy in addressing the areas of climate change adaptation and water quality (stated below). Effects would need to be clarified at a later stage of implementation of the overarching strategy based on the types of interventions pursued:
- Ensure that the local transport network builds resilience to climate change; and
 - To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.
- 6.2.8. Mitigation measures (discussed in **section 6.6**) should ensure that the strategy works towards producing a positive impact for these sustainability objectives and range from simple measures of ensuring the increased bus network coverage addresses community isolation to more complex strategies such as integrating flood defence measures to NMU interventions.

Connecting Economic Centres

- 6.2.9. The Connecting Economic Centres strategy prioritises economic focused interventions and increasing capacity of the transport network. As a result of this, trip length, frequency and numbers would increase (significantly in the case of overall trip totals). This increase would require capacity increases on the network, mainly addressed through significant increases in the rail and bus network, resulting in increases to their modal share. The reduced focus on active and alternative transport means that NMU mode share would remain unchanged and car mode share would only slightly increase.
- 6.2.10. The positive effects in relation to the sustainability objectives are limited, focused only on the improvements to the transport network supporting economic prosperity and improving community connectivity.
- 6.2.11. Due to the nature of the interventions, provision of highways upgrades, new highways schemes and shared transport scheme provision, the majority of the sustainability objectives are either significantly negative (in the case of greenhouse gas emissions) or negatively affected, with some uncertain effects in relation to climate change resilience and BNG.

Protecting Places and Communities

- 6.2.12. The Protecting Places and Communities strategy prioritises interventions that focus on a modal shift to rail and NMU trip methods and protecting both communities and the environment from adverse impacts. As a result, the total trip numbers are anticipated to slightly increase, the length and frequency of trips are not predicted to significantly change from the baseline scenario). In terms of modal share, fossil fuel cars will see a slight decrease while electric vehicle, rail and NMU share will increase (electric vehicles significantly).
- 6.2.13. This strategy has the most positive effects in relation to sustainability objectives. The significant positive effects of the strategy in relation to the following sustainability objectives are:
- Preservation of protected assets;
 - Conservation of resources and increased efficiency;
 - Reductions in adverse air quality / emissions as well as noise impacts; and
 - Benefits to economic prosperity, health and wellbeing and connectivity.
- 6.2.14. The benefits of these sustainability objectives relate to the focus of interventions on active and non-car-based transport measures without the need to significantly expand the capacity of the transport network.
- 6.2.15. Negligible effects are anticipated in relation to the protection of soils and land due to the focus of the strategy not being on expanding the transport network but shifting its modal share. As well as this, uncertain impacts are anticipated for GI, BNG, water body protection and climate change resilience.

Selection of the WSTP Overarching Strategy

- 6.2.16. Of the three overarching strategies, a version of the 'Local Living' strategy was amended to improve its performance for the economy and this was chosen by WSCC for the development of the WSTP4. This strategy was selected based on an initial appraisal against the economic, social, environmental objectives of the Plan. The appraisal concluded that Local Living would perform best against the environmental objectives and joint best against the social objectives whilst being the worst performing option when assessed against the economic objectives. Therefore, a modified Local Living strategy was developed incorporating targeted measures to improve some strategic road and rail and urban bus infrastructure linked to planned strategic growth that improved performance of the strategy against the economic objectives without substantially changing the impacts on the environmental and social objectives.

Table 6-1 – Matrix of Assessment of WSTP Strategy

Sustainability Objective	Local Living	Connecting Economic Centres	Protecting People and Places
1. To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.	+	-	++
2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.	+	-	+
3. To protect soils and minimise the loss of valuable agricultural and other land and improve efficiency of land use through the re-use of previously developed land and existing buildings.	0	-	0
4. To protect and enhance the County’s biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.	+	-	+
5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.	+ / -	-	+ / -
6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.	+	-	+

Sustainability Objective	Local Living	Connecting Economic Centres	Protecting People and Places
7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	+ / -	--	+
8. Ensure that the local transport network builds resilience to climate change.	?	?	?
9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	+	-	+
10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	+ / -	-	+
11. To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	+ / -	+ / -	+
12. To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.	?	-	?
13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	+ / -	-	?

Sustainability Objective	Local Living	Connecting Economic Centres	Protecting People and Places
14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	+ / -	-	+ / -
15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	+ / -	-	+
16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	+	+	?

6.3 Assessment of WSTP Objectives

- 6.3.1. The following summarises the assessment of the WSTP Objectives against the Sustainability Objectives. Further information can be found in **Table 6-2**.

Transport Objectives

Objective 11: Reduce the need to travel by car by enabling local living

- 6.3.2. The reduction of the need to travel by car performs positively in relation to sustainability objectives. At worst it has a negligible effect due to lack of relevance in relation to some sustainability objectives, such as BNG provision as part of schemes.

Objective 12: Improve the efficiency of the County Strategic Road Network, particularly east-west routes including A27, through targeted improvements to address congestion, pollution, rat-running and safety issues on strategic and local routes

- 6.3.3. The improvement of road efficiency has an overall positive or negligible effect in relation to sustainability objectives. However, mitigation measures in relation to numerous sustainability objectives would likely be required on a case by case basis to ensure that these physical interventions would not have localised negative effects.

Objective 13: Minimise the impacts on the transport network of surface access to Gatwick Airport by passengers and employees and ensure transport network improvements take the needs of other users and communities that share these routes into account

- 6.3.4. This objective is mostly negligible in its effects due to the lack of relation to many of the sustainability objectives, with the exception of connectivity and economic prosperity (which have positive impacts).
- 6.3.5. The mitigation measures that would be required for potential interventions should ensure that the implementation of any interventions in the Gatwick Airport area (a mostly urban area) incorporate measures to prevent adverse effects arising, such as encouragement of healthy lifestyles through active transport provision.

Objective 14: Ensure the rail network is an attractive option for travel between West Sussex towns and to surrounding cities by improving the speed and quality of West Coastway and Arun Valley Line services and capacity on the Brighton Main Line and integrated with other modes of transport

- 6.3.6. The improvement of rail services is another overall positive to negligible objective in terms of sustainability objectives. Many objectives are negligible, such as protection of biodiversity and natural capital, due to the lack of physical interventions that this objective will result in. An increase in train numbers, modal shift and importance of the rail network has the potential for arising effects, and would need to be considered on a case by case basis.
- 6.3.7. The mitigation measures that would be required for potential interventions would relate to commitments to the increased capacity requirements of the rail network and realisation of increased train numbers. An example measure being committing to improving climate resilience and flood risk protection of the existing rail lines and infrastructure.

Objective 15: Improve bus network efficiency and integration by reducing the effects of congestion into and within West Sussex towns, particularly where there are gaps in the rail network

- 6.3.8. The improvement of the bus network efficiency is an overall positive to negligible effect in terms of sustainability objectives. Physical interventions would be limited to improving existing infrastructure and lead to a reduction in car mode share trips.
- 6.3.9. The mitigation measures that would be required for potential interventions would relate to commitments to the methods of implementation of interventions in relation to said objective. An example of which being committing to BNG and flood defence provision in any improvements to physical bus infrastructure.

Objective 16: Ensure the bus network is customer focussed and integrated with other modes of transport to provide an attractive option for journeys to nearby towns

- 6.3.10. The improvement of bus network coverage is a behaviour shift focused objective. The encouragement of this modal shift is not associated with any physical interventions and will result in a decrease in car modal share (a key challenge faced in West Sussex). As a result, the relationship with this objective and the sustainability objectives is mostly positive, with negligible and uncertain effects in areas due to them not being affected by this modal shift (such as flood risk).

Objective 17: Extend and improve the network of active travel facilities so it is coherent and high quality enough to make active travel an attractive, safe option for short distance trips

- 6.3.11. The improvement and extension of NMU facilities is associated positively with most of the sustainability objectives as it will encourage a modal shift to active transport, increase connectivity and public health and help reduce negative impacts associated with motor transport. There is the potential that some interventions may require mitigation to account for potential negative impacts, such as interventions located adjacent to sensitive receptors such as ecological designated areas.
- 6.3.12. The associated mitigation measures include specifics related to the implementation of interventions, such as ensuring that NMU routes do not adversely impact GI and assist in improving overall GI and habitat connectivity.

Wider Objectives

Objective 1: Support sustainable economic prosperity across the County by levelling-up underperforming areas and recovering from the COVID-19 pandemic

- 6.3.13. It is assumed that in support of economic prosperity, some new infrastructure will be required on the transport network. Mitigation is recommended in the form of commitments to implementation measures such as BNG provision and flood compensation/defence. It should be noted that there is a large amount of uncertainty of effects, and will depend on the economic development strategy and types of interventions pursued that are determined in separate plans.

Objective 2: Support development and regeneration plans across the County by enabling local living and through strategic investments, particularly in sustainable modes of transport, at the right time and place to ensure the transport network is fit for the future

- 6.3.14. As with the sustainable economic prosperity objective, the planned development objective has a large amount of uncertainty of effects associated with the sustainability objectives and will be dependent on interventions pursued. The strategy for development and provision of associated infrastructure are determined through statutory development plans that are supported by their own SEAs.

Objective 3: Accommodate the needs of an ageing population that is expected to grow most in existing settlements in the Gatwick Diamond and Coastal West Sussex areas

- 6.3.15. In line with the sustainable economic prosperity objective, the accommodate demographic change objective is dependent on the nature of physical interventions pursued. As a result, many objectives, such as those associated with pollution and flood risk, have the potential positive and negative performance due to the potential for varying effects on a case by case basis with interventions. With appropriate mitigation measures negative impacts are likely to be mostly avoided or mitigated successfully in relation to sustainability objectives.

Objective 4: Avoid and where possible minimise air, noise and light pollution from use of the transport network to minimise impacts on public health and well-being

- 6.3.16. The focus of the objective is to reduce air, noise and light impacts associated with transport on health and wellbeing. This correlates with most of the sustainability objectives which aim to reduce impacts on environmental and social receptors affected in similar ways by noise, air and light impacts. Most of the impact associated with sustainability such as reducing air pollution and noise levels are positive, with some being negligible (such as effects on soil and land use).

Objective 5: Ensure the transport network allows residents and visitors to live healthy lifestyles with good access to green and blue spaces, particularly the West Sussex coast and the protected South Downs, High Weald and Chichester Harbour

- 6.3.17. The enabling of healthy lifestyles objective is associated with the connectivity of residents with the GI network. This objective has the potential to result in a number of positive effects. However, there may be some mitigation requirements to account for potential negative impacts of implementing any associated interventions, in particular the potential for negative impacts on the GI network itself as active transport interventions will often be integrated within the GI network and could negatively affect existing GI assets.
- 6.3.18. Although most effects are positive or negative, some effects on sustainability objectives will be negligible or uncertain due to the limited scope of the enable healthy lifestyles objective. An example of this being sustainable economic prosperity.

Objective 6: Ensure rural communities can live locally by accessing local services or nearby towns

- 6.3.19. The access to service objective could be achieved through a variety of forms of intervention. The resulting effects depend on the nature of the specific intervention. There is the potential either positive or negative effects associated with most sustainability objectives, dependant on the nature of potential interventions.

Objective 7: Enable the transport network to achieve net zero carbon by 2050

- 6.3.20. The reduction of GHG emissions conforms with most sustainability objectives. The broad scope of this objective results in a negligible or positive effect in relation to most sustainability objectives. Consideration of methods of implementation of interventions to ensure GHG emissions aren't increased to pursue achieving said sustainability objectives is an important consideration at point of implementation (refer to Figure 2-1).

Objective 8: Avoid and where possible minimise the impacts of the transport network on natural resources and on the natural, built and historic environment

- 6.3.21. The minimisation of impacts on protected areas conforms with most sustainability objectives which focus on protected assets. The broad scope of this objective results in a positive effects, with some negligible and significant positive effects as well in relation to most sustainability objectives. Minimal mitigation is recommended with the exceptions on the demographic change and economic prosperity sustainability objectives, which require consideration of methods of implementation of interventions to ensure protected areas aren't adversely impacted achieving said sustainability objectives.

Objective 9: Improve the transport network whilst conserving and enhancing biodiversity

- 6.3.22. The protection and enhancement of the environment objective conforms with most sustainability objectives. This objective is to be achieved throughout any improvements and enhancements of the transport network. The broad scope of this objective results in a positive effects, some significant positive and some negligible effects in relation to most sustainability objectives. Minimal mitigation is recommended with the exceptions on the demographic change and economic prosperity sustainability objectives, which require consideration of methods of implementation of interventions to ensure interventions to improve the network do not adversely affect the environment.

Objective 10: To monitor and adapt infrastructure to the effects of climate change

- 6.3.23. The adaptation to climate change objective either has the potential for positive effects or has negligible effects with most sustainability objectives. The broad scope of this objective results in a negligible or positive effect in relation to most sustainability objectives. Mitigation is recommended to improve the outcomes of this objective by specifying the need to mitigate and provide benefits towards flood risk and resilience of the transport network and West Sussex as a whole. The key area of mitigation regarding greenhouse gas emissions relates to the adoption of a carbon appraisal system, as outlined in **Section 6.6**. As climate change and its effects are holistic in nature, measures covered by other WSTP4 objectives would also fall under measures to adapt to climate change (such as environmental enhancement).

Table 6-2 – Matrix of Assessment of WSTP Objectives (Obj.)

Sustainability Objective	Obj. 11	Obj. 12	Obj. 13	Obj. 14	Obj. 15	Obj. 16	Obj. 17	Obj. 1	Obj. 2	Obj. 3	Obj. 4	Obj. 5	Obj. 6	Obj. 7	Obj. 8	Obj. 9	Obj. 10
1. To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.	0	+ / -	0	0	+ / -	+	+ / -	?	?	?	+	+	+ / -	+	+	++	+
2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.	++	+	0	+	+	+	+	+ / -	+ / -	+ / -	0	?	0	++	+	+	0
3. To protect soils and minimise the loss of valuable agricultural and other land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.	0	+	0	0	0	0	+	+ / -	+ / -	+ / -	0	+ / -	+ / -	0	+	+	0
4. To protect and enhance the County’s biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.	+	+ / -	0	0	+ / -	+	+ / -	?	?	+ / -	+	+ / -	+ / -	+	+	++	+
5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.	0	?	0	0	+ / -	+	+ / -	?	?	?	+	+	+ / -	+	+	++	+
6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.	++	+	+ / -	+	+	+	+	+ / -	?	+ / -	+	+	+ / -	+	+	+	+
7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	++	+	+ / -	+	+	+	+	+ / -	+ / -	+ / -	+	+	+ / -	++	+	+	+
8. Ensure that the local transport network builds resilience to climate change.	0	?	?	?	?	0	?	?	?	+ / -	+	0	?	+	+ / -	+	++
9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	++	+	+ / -	+	+	+	+	+ / -	?	+ / -	+	+	+ / -	+	+	+	+
10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	0	+ / -	0	+ / -	+ / -	0	+	+ / -	?	+ / -	0	+	?	0	++	+	0

Sustainability Objective	Obj. 11	Obj. 12	Obj. 13	Obj. 14	Obj. 15	Obj. 16	Obj. 17	Obj. 1	Obj. 2	Obj. 3	Obj. 4	Obj. 5	Obj. 6	Obj. 7	Obj. 8	Obj. 9	Obj. 10
11. To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	+	+ / -	0	+ / -	+ / -	0	+	+ / -	?	+ / -	0	+	?	0	++	+	0
12. To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.	+	?	0	+ / -	+ / -	+	+ / -	+ / -	?	+ / -	+	?	+ / -	0	0	+	0
13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	0	?	0	?	?	0	?	+ / -	?	+ / -	+	0	?	0	0	0	++
14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	+	+	+ / -	+	+	+	++	+	+	+	+	++	+ / -	+	+ / -	+ / -	+
15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	+	+ / -	+ / -	+	+	+	+	+	+ / -	+	++	++	+ / -	+	+	+	0
16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	?	+	+	+	+	+	+	++	++	+	0	0	+	?	?	?	+ / -

6.4 Assessment of WSTP Thematic Transport Strategies

6.4.1. The following summarises the assessment of the WSTP Thematic Transport Strategies against the Sustainability Objectives. Further information can be found in **Table 6-3**.

Active Travel Strategy

- 6.4.2. The active travel strategy is focused on NMU interventions to provide improved PRoW and active travel improvements throughout district and borough areas of West Sussex. Interventions associated with providing NMU infrastructure will be the main focus, adding active travel options to existing infrastructure, providing new crossings and promoting cycle networks. The most direct change in mode of transport for trips as a result of this will be a shift in short term trips from cars to NMUs trips.
- 6.4.3. This strategy is well aligned to many sustainability objectives. There are potential negative impacts associated with the provision of new NMU infrastructure, though this will be minor in comparison to comparative measures to provide infrastructure for motorised vehicles and rail. Mitigation and monitoring measures will be required to ensure these interventions do not result in negative impacts in relation to some sustainability objectives.
- 6.4.4. Positive impacts are expected with sustainability objectives associated with reducing the impacts of motorised vehicles on receptors and providing health and service access to local communities. The focus of potential interventions within and between major settlements such Horsham, Crawley, Bognor Regis, Burgess Hill and Haywards Heath will ensure the greatest benefit to effecting trip behaviour and other improvements to receptors while reducing the likely impacts on environmental receptors such as ecologically protected areas often associated with new infrastructure in rural areas.
- 6.4.5. Although broadly positive in its association with sustainability objectives, the Active Travel Strategy is likely to have a negligible effect in relation to the continued economic prosperity, climate change resilience and flood risk sustainability objectives. Although not likely to result in a negative impact the focus of the Active Travel Strategy is not likely to impact trips associated with economic activity. Additionally, the commitment to BNG provision and appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

Shared Transport Strategy

- 6.4.6. The Shared Transport Strategy is focused on improving and expanding the existing bus and community transport network and the introduction of mobility solutions. Interventions associated with expanding and improving the existing bus network to ease congestion within towns and provide options to journey between settlements. The most direct change in mode of transport for trips as a result of this will be a shift in short and medium distance trips from cars to NMUs trips, with journeys such as work commuting, other inter-settlements journeys intra-settlement trips likely seeing the greatest uptake.

- 6.4.7. This strategy is well aligned to many sustainability objectives. There are potential negative impacts associated with the provision of new infrastructure, though the focus of the Shared Transport Strategy is unlikely to result in large scale physical infrastructure construction with the exception of new interchanges. Additionally, although reducing car travel, the strategy still promotes fossil-fuel based modes (buses, although a transmission to zero-emission buses is acknowledged) though it is likely that the benefits of trip mode changes, combined with the limited infrastructure requirements, will result in a net positive effect on emissions.
- 6.4.8. The minor extent of new infrastructure required (limited to inclusion and prioritisation in wider improvement schemes and providing shared transport interchanges), and the promotion of alternatives to car travel will result in positive impacts in relation to multiple sustainability objectives. In addition, the strategy is likely to improve mental and physical well-being of communities and sustainment of economic prosperity through strengthening the counties public transport system.
- 6.4.9. As with the Active Travel Strategy, some sustainability objectives will see a negligible or uncertain impact. This is associated with sustainability objectives such as landscape and climate change resilience. Due to the lack of physical infrastructure required there will not be any entirely negative effects though multiple sustainability objectives would see both positive and negative effects, such as the maintenance of natural capital. Mitigation measures in relation to flood risk and climate resilience will be implemented for schemes, such as interchanges, though the overall effect of this is likely to be limited to mitigation of effects only, resulting in a negligible overall effect in relation to these sustainability objectives.

Rail Strategy

- 6.4.10. The Rail Strategy is focused on the improvement of the existing rail networks throughout West Sussex as well as improvement of infrastructure connections to said network. The aims of this being to prioritise the rail network as a travel option for both economic and private journeys. Much of the focus of interventions would be on replacing of rolling stock, station improvements, railway crossings and increased service offerings.
- 6.4.11. The Rail Strategy is aligned with many of the sustainability objectives, with a key outcome being the reduction of motorised road vehicle trips for economic and private trips within and outside of West Sussex. Infrastructure improvements are to be limited to existing stations such as Crawley rather than new line provision, and provision of new rolling stock is unlikely to result in negative impacts in association with sustainability objectives. Despite this, the nature of the required infrastructure provision, station and crossing improvements do have the potential for negative impacts without mitigation and monitoring measures though it is noted that a commitment to BNG for schemes would ensure net positive effects in relation to biodiversity and ecosystem sustainability objectives (along with the key reduction in private vehicle motor journeys).
- 6.4.12. The minor extent of new infrastructure required (limited to station and crossing improvements), and the promotion of alternatives to car travel will result in positive impacts in relation to multiple sustainability objectives such as air quality and noise despite the rail network still being a fossil fuel-based network. In addition, the strategy is likely to contribute to the sustainment of economic prosperity through strengthening the counties public transport system and rolling stock capacity.

6.4.13. As with the Active Travel and the Shared Transport Strategy, the Rail Strategy is mostly positive, after some mitigation measures, in its association with the sustainability objectives. The protection of best and most versatile land is deemed to have a negligible effect. This is due to the focus of interventions on the rail network (limiting the spatial scope) and the limited spatial scope of physical interventions means that no new land take will be required on these areas of land. As well as these the effects in relation to flood risk and climate change resilience would likely be negligible with the implementation of stated mitigation intentions.

Access to Gatwick Airport Strategy

- 6.4.14. The Access to Gatwick Airport Strategy is the most spatially and objectively limited of all strategies, being focused on the facilities in and around Gatwick Airport. Due to the more limited scope to within a highly urban environment, this objective has the most limited overlap with sustainability objectives as interventions are unlikely to interact with more rural environmental receptors. Positive effects are associated with the improvements to sustainable economic prosperity. Effects such as noise pollution, air pollution and biodiversity provision would have a mixed positive and negative effect due to the likely increased overall trips facilitated by interventions (a negative effect) but an increased uptake in trips by active travel and EV vehicles (facilitated by installed EV infrastructure) (a positive effect). Without the provision of EV infrastructure and active travel facilities, sustainability objectives such as air quality and noise would likely see an overall negative effect.
- 6.4.15. As discussed above the limited scope of the Access to Gatwick Airport Strategy will result in negligible effects associated with multiple sustainability objectives, due to the likely lack of contact with many of the associated environmental receptors.

Road Network Strategy

- 6.4.16. The Road Network Strategy is the only one of the strategies to have outright negative effects associated with the sustainability objectives (in comparison to both positive and negative effects). These negative effects come as a result of the focus on improving the efficiency of the county strategic road network infrastructure and developing new road corridor schemes. These schemes continue to facilitate private car travel and would differ from other strategies in the extent of new road infrastructure provision (with increased effects on biodiversity, natural capital, the potential for habitat connectivity and BNG and effects on overall flood risk in West Sussex) and the scale of increase in private car journeys and the associated negative environmental effects which would require the implementation of mitigation at a project level. Those sustainability objectives negatively affected by the Road Network Strategy relate to the following:
- Biodiversity and Green Infrastructure;
 - Greenhouse gas emissions;
 - Landscape setting and assets; and
 - Flood risk.

- 6.4.17. Of particular note is the significant negative effect on greenhouse gas emissions by the road network strategy. The provision of EV infrastructure, shared transport provision and active travel provision are key components of the road network strategy which, when considered alongside the likely increased private fossil-fuel based car journeys undertaken, reduces the likely effects from a significant negative to a negative effect. The provision of EV infrastructure and active transport options would have positive effects in relation to localised emissions and air quality / noise (reflected in the assessment of those sustainability objectives) however when compared to the extent of fossil fuel based trips and the purpose of these trips they would not be of the scale to mitigate the negative effects of overall greenhouse gas emissions. Overall it is likely the full implementation of this strategy would result in West Sussex not being able to meet national targets on Greenhouse Gas Reduction emissions and appropriately respond to the global Climate Change Emergency due to the continued promotion of private motor vehicles as the primary means of transport.
- 6.4.18. Many sustainability objectives will see a combination of both positive and negative effects, this is primarily as a result of the mixed nature of interventions and outcomes of the strategy, the provision of EV and active travel infrastructure and the easing of congestion will provide positive effects, while the provision of new road infrastructure and the continued focus on fossil-fuel based trips (as vehicle fleet renewal will take time) would result in negative effects. The sustainability objectives experiencing both positive and negative effects relate to the following:
- Biodiversity Net Gain and Natural Capital;
 - Resource efficiency;
 - Air quality;
 - Noise;
 - Cultural Heritage; and
 - Health and wellbeing.
- 6.4.19. Positive effects on sustainability objectives are likely in relation to connectivity and sustained economic prosperity. Interventions to improve connectivity, support new developments and ease congestion and capacity issues will have a positive impact on continued economic prosperity

Table 6-3 – Matrix of Assessment of WSTP Thematic Transport Strategies

Sustainability Objectives	Active Travel	Shared Transport	Rail	Access to Gatwick Airport	Road Network
1. To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.	+	+ / -	+ / -	+ / -	-
2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.	+	+	+	+ / -	+ / -
3. To protect soils and minimise the loss of valuable agricultural and other land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.	0	0	0	0	0
4. To protect and enhance the County’s biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.	+	+ / -	+ / -	0	-
5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.	+	+ / -	+ / -	0	-
6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.	+	+	+	+ / -	+ / -
7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	+	+	+	+ / -	--
8. Ensure that the local transport network builds resilience to climate change.	0	0	0	0	+ / -
9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	+	+	+	+ / -	+ / -
10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	+	0	+	0	-
11. To protect and enhance West Sussex’s historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	+ / -	0	+	0	+ / -
12. To protect and where possible, enhance water quality of the County’s rivers, groundwater and coast.	+	+	+	0	+ / -

Sustainability Objectives	Active Travel	Shared Transport	Rail	Access to Gatwick Airport	Road Network
13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	0	0	0	0	-
14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	++	+	+	+ / -	+
15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	++	+	+	+ / -	+ / -
16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	0	+	+	+	+

6.5 Assessment of WSTP Area Transport Strategies

- 6.5.1. The following summarises the assessment of the WSTP Area Transport Strategies against the Sustainability Objectives. Further information can be found in **Table 6-4**.
- 6.5.2. In all of the Area Transport Strategies the issues of climate change resilience, water quality and flood risk are not addressed directly in the context of the proposed interventions. As a result, the effects on sustainability objectives in relation to these issues are classified as uncertain and more information is required in each area transport strategy to properly determine the effects in relation to said sustainability objectives.

Adur Area Transport Strategy

- 6.5.3. The Adur Area Transport Strategy focuses proposed interventions on active travel improvements throughout Adur, preparing infrastructure to support a shift to electric vehicles and have focused infrastructure improvements on the A27 road. The key issues to resolve are congestion, community severance and inefficient/lack of coverage of public and active transport. The Adur Area Transport Strategy offers a balanced range of interventions that should simultaneously alleviate congestion issues and enable a reduction in car use and fossil-fuel based car use.
- 6.5.4. The provision of the major A27 road upgrades and the associated effects on traffic and car vehicle trips is the main reason for negative effects on the greenhouse gas emissions sustainability objective, the only outright negative effect on the Adur Area Transport Strategy. The strategy does not appropriately address the scale of the issues faced due to climate change and the contribution of fossil fuel based travel to climate change.
- 6.5.5. The Adur Area Transport Strategy's focus on a combination of likely smaller scale physical interventions, rail network improvements, provision of EV infrastructure and will likely result in a combination of both positive and negative effects in relation to the following:
- Biodiversity and Natural Capital;
 - Resource efficiency;
 - Air quality;
 - Landscape setting and assets;
 - Connectivity; and
 - Health and wellbeing.
- 6.5.6. The strategy is anticipated to have limited outright positive effects. The promotion of active transport and accompanying interventions, the provision of EV infrastructure and improvements to the West Coast railway will all reduce the fossil-fuel based private motor vehicle dependency in urban areas and have positive effects in relation to the following:
- Noise pollution; and
 - Sustainable economic prosperity.

6.5.7. A negligible effect is anticipated in relation to heritage assets, soil and agricultural land, climate change resilience and flood risk. Likely interventions are not anticipated to impact areas of concentrations of historic assets or provide new areas of physical infrastructure of a sufficient level to negatively affect soil and agricultural land. Additionally, appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

Arun Area Transport Strategy

- 6.5.8. The Arun Area Transport Strategy focuses on upgrades to the existing network, in particular major new infrastructure schemes in the form of the A27 Arundel Bypass, other A27 upgrades, A284 Lyminster Bypass and A29 Realignment (phase 1). As a result, and similar to the Road Network Thematic Strategy, negative effects are anticipated in relation to multiple sustainability objectives. The inclusion of active transport measures and electric vehicle charging provision does not outweigh the negative impacts, though these are an important positive component making up the positive element in the classification of both positive and negative effects in relation to some sustainability objectives.
- 6.5.9. The negative effects on sustainability objectives are associated with the multiple major schemes proposed and relate to biodiversity, air quality, natural capital and landscape that will be unavoidably affected by the provision of new physical infrastructure of a significant scale. In addition, the effects on greenhouse gas emissions will also see a significant negative effect despite the provision of EV infrastructure and active travel provision components of the area transport strategy. The provision of EV infrastructure and active transport options would have positive effects in relation to localised emissions and air quality / noise however when compared to the extent of fossil fuel based trips and the purpose of these trips they would not be of the scale to mitigate the negative effects of overall greenhouse gas emissions. The effects on greenhouse gas emissions are significant compared with the other area transport strategies. The strategy takes the district in the wrong direction to address the scale of the issues faced due to climate change.
- 6.5.10. The combination of likely smaller scale physical interventions, active transport provision, provision of EV infrastructure and mitigating effect of measures in relation to major interventions will likely result in a combination of both positive and negative effects in relation to the following:
- Resource efficiency;
 - Noise pollution;
 - Heritage assets; and
 - Health and wellbeing.
- 6.5.11. Significant positive effects in relation to sustained economic prosperity. Interventions to improve connectivity, support new developments and ease congestion and capacity issues will also result in a positive effect in relation to the connectivity and the support of demographic change.
- 6.5.12. Negligible effects are anticipated in relation to climate change resilience and flood risk. Appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

Chichester Area Transport Strategy

- 6.5.13. The Chichester Area Transport Strategy focuses on alleviating the key issues of congestion in and outside of Chichester and improving priority and attractiveness of the bus network and cycle network. The interventions include major improvement works on the A27 and some improvements on other ring-roads and corridors. As well as shared and active transport facility provision and cycle network improvements will be provided throughout the road network.
- 6.5.14. The provision of the major A27 road upgrades and the associated effects on traffic and car vehicle trips is the main reason for negative effects on the greenhouse gas emissions sustainability objective, the only outright negative effect on the Chichester Area Transport Strategy. The strategy does not appropriately address the scale of the issues faced due to climate change and the contribution of fossil fuel based travel to climate change.
- 6.5.15. The Chichester Area Transport Strategy's focus on a combination of likely smaller scale physical interventions, provision of EV infrastructure and provision of one major intervention on the A27 will likely result in a combination of both positive and negative effects in relation to the following:
- Biodiversity and Natural Capital;
 - Soil and Agricultural Land;
 - Air quality;
 - Noise pollution;
 - Landscape setting and assets;
 - Heritage assets; and
 - Health and wellbeing.
- 6.5.16. The strategy is anticipated to have positive effects in relation to multiple sustainability objectives. The promotion of active transport and accompanying interventions, the provision of EV infrastructure and west coast railway will all reduce the fossil-fuel based private motor vehicle dependency and have positive effects in relation to the following:
- Connectivity; and
 - Sustainable economic prosperity.
- 6.5.17. Finally, negligible effects are anticipated on the resource efficiency and waste generation, climate change resilience and flood risk. Extensive use of resources will likely be required to facilitate interventions but said interventions increasing overall resource efficiency and waste conservation. Additionally, appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

Crawley Area Transport Strategy

- 6.5.18. The Crawley Area Transport Strategy focuses on delivering railway station improvements, shared and active transport priority measures and one major physical infrastructure scheme (the Crawley Western Road Link). These interventions aim to address key transport issues of congestion throughout Crawley and the disconnected and insufficient cycle network. The majority of the negative effects associated with the strategy are associated with the Crawley Western Road link, in particular those on biodiversity and natural capital.

- 6.5.19. The Crawley Western Link and the associated effects on traffic and car vehicle trips is the main reason for negative effects on the greenhouse gas emissions sustainability objective, the only outright negative effect on the Crawley Area Transport Strategy. The strategy does not appropriately address the scale of the issues faced due to climate change and the contribution of fossil fuel based travel to climate change.
- 6.5.20. The Crawley Area Transport Strategy's focus on a combination of likely smaller scale physical interventions, provision of EV infrastructure and provision of one major intervention in the form of the Crawley Western Link scheme will likely result in a combination of both positive and negative effects. It should be noted that in this case the majority of negative effects will be associated with the Crawley Western Link, with positive effects being experienced elsewhere or as a result of mitigating elements (such as EV infrastructure and active travel options included in the scheme):
- Biodiversity and Natural Capital;
 - Soils and land use;
 - Air quality;
 - Noise pollution;
 - Landscape setting and assets;
 - Heritage assets; and
 - Health and wellbeing.
- 6.5.21. The strategy is anticipated to have positive effects in relation to multiple sustainability objectives. The promotion of active transport and accompanying interventions and the provision of EV infrastructure will reduce the fossil-fuel based private motor vehicle dependency and the associated negative effects, resulting in positive effects in relation to the following:
- Connectivity; and
 - Sustainable economic prosperity.
- 6.5.22. Finally, negligible effects are anticipated on the resource efficiency and waste generation, climate change resilience and flood risk. Extensive use of resources will likely be required to facilitate interventions but said interventions increasing overall resource efficiency and waste conservation. Additionally, appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

Horsham Area Transport Strategy

- 6.5.23. The key issues in Horsham District are related to the dominant trip mode being that of the car. This results in a large amount of congestion and is exacerbated by a lack of alternative active, shared or rail options. The interventions associated with the area transport strategy consist of junction improvements on the local road network and range of active, shared and rail improvements and services.

- 6.5.24. The Crawley Western Link and the associated effects on traffic and car vehicle trips is the main reason for negative effects on the greenhouse gas emissions sustainability objective, the only outright negative effect on the Horsham Area Transport Strategy. The strategy does not appropriately address the scale of the issues faced due to climate change and the contribution of fossil fuel based travel to climate change.
- 6.5.25. The focus on a combination of smaller scale physical interventions of junction improvement and active/shared/rail interventions have the potential to result in a combination of both positive and negative effects in relation to biodiversity, natural capital, heritage assets and landscape settings and assets. This is due to these interventions requiring physical infrastructure installation with the potential to encroach on these assets and areas of habitat and/or negatively affecting them in their construction. However, positive effects are likely to occur throughout the District once these interventions have been implemented as pressures on assets are reduced from the reduced fossil-fuel based private road vehicle trips.
- 6.5.26. The strategy is anticipated to have positive effects in relation to multiple sustainability objectives. The promotion of active transport and accompanying interventions, the provision of EV infrastructure, provision of shared transport and rail infrastructure and the lack of new car based interventions and road schemes will reduce the fossil-fuel based private motor vehicle dependency and the associated negative effects, resulting in positive effects in relation to the following. Of particular note is the effect on noise pollution and air quality. The combination of shared, rail and active transport interventions alongside EV infrastructure will, in combination, result in positive effects whereas a focus on only one style of intervention would likely not be of sufficient magnitude to mitigate the effects of fossil-fuel based car trips:
- Air quality;
 - Noise pollution;
 - Connectivity;
 - Health and wellbeing; and
 - Sustainable economic prosperity.
- 6.5.27. A negligible effect is anticipated in relation to resource efficiency and waste, soil and agricultural land, climate change resilience and flood risk. Likely interventions are not anticipated to provide new areas of physical infrastructure of a sufficient level to negatively affect soil and agricultural land. Additionally, appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

Area Transport Strategy for Mid-Sussex

- 6.5.28. The area transport strategy aims to deal with the key identified issues of congestion and poor active and shared transport connectivity in the District through a series of interventions targeting existing road infrastructure improvements, bus and rail interchange facilities, rail improvements and bus priority measures.

6.5.29. The focus on a combination of smaller scale physical interventions of junction improvement and the extensive coverage of active/shared/rail interventions have the potential to result in a combination of both positive and negative effects. This is due to these interventions requiring physical infrastructure installation with the potential to encroach on receptors such as heritage assets and/or negatively affect them during the intervention's construction. However, positive effects are likely to occur throughout the District once these interventions have been implemented as pressures on assets are reduced from the reduced fossil-fuel based private road vehicle trips. The sustainability objectives anticipated to experience both positive and negative effects relate to the following:

- Biodiversity and natural capital;
- Soils and land use; and
- Heritage assets.

6.5.30. The strategy is anticipated to have positive effects in relation to multiple sustainability objectives. The focus of interventions in relation to shared transport will in particular see positive effects, such as improving connectivity throughout the District via alternative methods to the car. In addition, promotion of active transport and accompanying interventions, the provision of EV infrastructure, provision of rail infrastructure and the lack of new car based interventions and road schemes will reduce the fossil-fuel based private motor vehicle dependency and the associated negative effects, resulting in positive effects in relation to the following:

- Resource efficiency;
- Air quality;
- Greenhouse gas emissions;
- Noise pollution;
- Landscape setting and assets;
- Connectivity;
- Health and wellbeing; and
- Sustainable economic prosperity.

6.5.31. Negligible effects are anticipated in relation to climate change resilience and flood risk. Appropriate flood risk mitigation should help mitigate any additional pressures on West Sussex from these in relation to active travel interventions.

South Downs National Park Area Transport Strategy

6.5.32. The SDNP transport issues differ in some areas compared to other districts. Unique identified issues such as a lack of east-west bus transit, almost no access to public transport and a lack of car parking capacity in urban areas. The area transport strategy aims to deal with these issues through small scale road infrastructure improvements, alleviate severance with multiple crossing and access point provisions, increasing active and shared transport coverage and removing the A272 from the primary route network. A particular consideration for any intervention including street lighting is the potential to affect the areas' status as an International Dark Sky Reserve.

- 6.5.33. The focus on a combination of smaller scale physical, in particular active transport routes and new access points over existing road infrastructure, have the potential to cause negative impacts in a localised setting without implementation of some additional measures.
- 6.5.34. Similarly to Adur and Horsham's strategy's, the SNDP strategy focus on active and shared transport interventions of a minor nature, as well as non-intrusive road network interventions, will result in positive effects in relation to many sustainability objectives, in particular reducing noise levels from a reduction in car mode share and positively impacting the setting of the SDNP area.
- 6.5.35. Although not anticipated to result in negative impacts in relation to sustainability objectives, the strategy is not anticipated to provide overlap in relation to heritage assets and protection of soils and agricultural land. This is because likely interventions are not anticipated to impact areas of concentrations of historic assets or provide new areas of physical infrastructure of a sufficient level to require land take from valuable agricultural land. Therefore, negligible effects are anticipated. Additionally, appropriate flood risk mitigation should help ensure negligible effects in relation to climate change resilience and flood risk.

Worthing Area Transport Strategy

- 6.5.36. The Worthing Area Transport Strategy aims to deliver small scale interventions to improve bus and rail interchange facilities, sustainable transport provision, the West Coastway rail service and localised highway improvements. These interventions would be done alongside a major A27 upgrade scheme.
- 6.5.37. The provision of the major A27 road upgrades and the associated effects on traffic and car vehicle trips is the main reason for negative effects on the greenhouse gas emissions sustainability objective, the only outright negative effect on the Worthing Area Transport Strategy. The strategy does not appropriately address the scale of the issues faced due to climate change and the contribution of fossil fuel based travel to climate change.
- 6.5.38. The area transport strategy's focus on a combination of localised interventions on the road network, active and shared transport facilities, rail network upgrades and the A27 upgrades will likely result in a combination of both positive and negative effects in relation to the following. This is due to the interventions being focused on connecting communities and extending existing NMU networks, requiring new infrastructure (negatively affecting receptors) but having an operational positive effect:
- Biodiversity and Natural Capital;
 - Agricultural land and soils;
 - Air quality;
 - Noise pollution; and
 - Landscape setting and assets.
- 6.5.39. The strategy is anticipated to have positive effects in relation to multiple sustainability objectives. The promotion of active transport in particular will improve connectivity between communities via sustainable transport measures along with reducing the fossil-fuel based private motor vehicle dependency and have positive effects in relation to the following:
- Connectivity;
 - Health and wellbeing; and

- Sustainable economic prosperity.

6.5.40. A negligible effect is anticipated in relation to resource efficiency and waste, heritage assets, climate change resilience and flood risk. Extensive use of resources will be required to facilitate interventions but said interventions increasing overall resource efficiency and waste conservation. In relation to heritage, likely interventions are not anticipated to impact areas of concentrations of historic assets, instead being focused on connecting communities. Additionally, appropriate flood risk mitigation should help ensure negligible effects in relation to climate change resilience and flood risk.

Table 6-4 – Matrix of Assessment of WSTP Area Transport Strategies

Sustainability Objective	Adur	Arun	Chichester	Crawley	Horsham	Mid-Sussex	South Downs National Park	Worthing
1. To maintain and enhance the provision of ecosystem services from the County's natural capital and contribute to biodiversity net gain.	+ / -	-	+ / -	+ / -	+ / -	+ / -	+	+ / -
2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.	+ / -	+ / -	0	0	0	+	+	0
3. To protect soils and minimise the loss of valuable agricultural and other land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.	0	0	+ / -	+ / -	0	+ / -	0	+ / -
4. To protect and enhance the County's biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.	+ / -	-	+ / -	+ / -	+ / -	+ / -	+	+ / -
5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.	+ / -	-	+ / -	+ / -	+ / -	+ / -	+	+ / -
6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.	+ / -	-	+ / -	+ / -	+	+	+	+ / -
7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	-	--	-	-	-	+ / -	+ / -	-
8. Ensure that the local transport network builds resilience to climate change.	0	0	0	0	0	0	0	0
9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	+	+ / -	+ / -	+ / -	+	+	+	+ / -
10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	+ / -	-	+ / -	+ / -	+ / -	+	+	+ / -
11. To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	0	+ / -	+ / -	+ / -	+ / -	+ / -	0	0

Sustainability Objective	Adur	Arun	Chichester	Crawley	Horsham	Mid-Sussex	South Downs National Park	Worthing
12. To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.	?	?	?	?	?	?	?	?
13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	0	0	0	0	0	0	0	0
14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	+ / -	+ / -	+	+	+	+	+	+
15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	+ / -	+ / -	+ / -	+ / -	+	+	+	+
16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	+	++	+	+	+	+	+	+

6.6 Mitigation Requirements

- 6.6.1. The SEA Regulations require that mitigation measures are considered to prevent, reduce or offset significant adverse effects on the environment of implementing the plan. The measures are known as ‘mitigation’ measures. Guidance states that mitigation measures include both proactive avoidance of negative effects and actions taken after the identification of arising negative effects.
- 6.6.2. **Table 6-5** includes recommendations for measures in response to potential negative effects. Enhancement opportunities are also captured in the proposed measures. These measures are geared towards the construction and design of interventions that are likely to result in the implementation of the WSTP4 and those mentioned in the Thematic and Area Transport Strategies. The proposed measures, where applicable, should be considered for each individual intervention. The measures should then be incorporated into the design, construction and operation of the developed intervention. It is assumed that, for interventions at the point of implementation, further assessment of environmental effects (refer to Figure 2-1) will be carried out and suitable specific mitigation measures proposed.
- 6.6.3. Some targets have been recommended in relation to sustainability objectives such as biodiversity, and further work to establish additional targets is advised on areas such as greenhouse gas emissions. However, it is noted that some sustainability objectives, such as Air Quality, while already be governed by existing regional and national level targets. Therefore, in these cases, additional targets have not been recommended.

Table 6-5 – Mitigation Requirements in Relation to Sustainability Objectives

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>1. To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.</p>	<p>West Sussex ecosystem services and natural capital are vulnerable to increased pressures from future development trends. Any intervention that requires land take of previously undeveloped land has the potential to adversely affect natural capital and lead to a reduction in biodiversity. These assets may be negatively impacted or lost during the implementation of interventions or strategies.</p>	<ul style="list-style-type: none"> ▪ Interventions should consider environmental impacts on natural capital and biodiversity early in the design stage and design out negative effects with measures such as avoidance and mitigation. In general areas of previously undeveloped land should be avoided; ▪ In particular, designated sites (ecological) and effects on these sites should be avoided for any intervention; ▪ Large scale road schemes should be considered only if no other alternative is suitable to issues as they will involve an unavoidable element of natural capital reduction and fragmentation of habitats; ▪ Any intervention should commit to providing Biodiversity Net Gain (BNG) as part of the design. WSCC should commit to an overall target of at least 10% BNG provision on major schemes throughout the lifetime of the WSTP in accordance with The Environment Act 2021 [For more information see: UK Government (2021) The Environment Act 2021. [Online] [Accessed December 2021]]; ▪ Scheme proposals should consider biodiversity issues in their design and include considerations for reinforcing existing wildlife corridors, providing new biodiversity opportunities, restoring and connecting habitats and providing GI; ▪ The design and implementation of larger interventions where significant effects are likely, will go through the EIA process and seek biodiversity net gain as part of design and mitigation measures. Smaller interventions may not require the EIA process but should adopt similar measures; and ▪ WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable, to ensure conformance with the sustainability objective is achieved. 	<ul style="list-style-type: none"> ▪ For smaller scale interventions, mitigation measures are likely to minimise negative effects; ▪ For larger interventions, namely new highway schemes, mitigation measures will reduce but may not eliminate negative effects.
<p>2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.</p>	<p>Construction of new infrastructure requires increased resource use (for example use of raw materials) and will result in waste generation. Capacity increases to elements of the transport network will similarly increase resource use. Increased GHG emissions have the potential to increase with the increased numbers of journeys. As well as this, addressing energy used in street lighting and reducing motorised trips are opportunities to improve energy efficiency.</p>	<ul style="list-style-type: none"> ▪ New highway schemes should ensure that priority is given to shared transport measures and active transport is incorporated into the design. Encouraging active or public transport resources waste and resource use; ▪ Interventions should consider waste generation and resource use in planning and design to increase resource efficiency and improve operational efficiency; ▪ Consideration at the procurement stage should be given to resource hierarchy, for example, use of reused materials to form road surfaces and/or additional measures to ensure the preservation of road surfaces; and ▪ In addition, opportunities for renewable energy capture should be integrated into interventions where practicable. 	<ul style="list-style-type: none"> ▪ For new highway interventions the mitigation will reduce the significant negative effects. However, an overall negative effect may still be experienced depending on the nature and scale of the intervention and the impact of mitigation.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>3. To protect soils and minimise the loss of valuable agricultural and other land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.</p>	<p>Issues may arise when interventions are required on existing agricultural and other non-urban land uses. Additionally, issues may arise from operational initiatives such as introduction of sources of pollutants (motor vehicles) to soils previously not exposed to the associated contaminants.</p>	<ul style="list-style-type: none"> ▪ Any intervention requiring land take should be positioned to avoid development on previously undeveloped land, where this is not possible, avoid encroaching on/severing productive farmland. Where practicable previously developed land should be prioritised for use; ▪ When a development will have unavoidable effect on soils and valuable agricultural land, alternatives should be considered; and ▪ WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable, to ensure conformance with the sustainability objective is achieved. 	<ul style="list-style-type: none"> ▪ In general, commitments to avoid the loss of valuable agricultural or other forms of land use will see an improvement.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>4. To protect and enhance the County's biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.</p>	<p>Issues arise in relation to this objective in any instance where a physical intervention is required on previously undeveloped land as well as the maintenance and upgrade to existing infrastructure that is in the vicinity of sites of biodiversity, for example indirect effects through vehicle emissions to air.</p> <p>Any physical intervention can have negative impacts on biodiversity in particular without the careful consideration of an approach to avoid/reduce these impacts and a suite of appropriate mitigation measures.</p>	<ul style="list-style-type: none"> ▪ Interventions should consider environmental impacts on natural capital (see objective 1) and biodiversity early in the design stage and design out negative effects with measures such as avoidance, mitigation and enhancement. In general areas of previously undeveloped land should be avoided; In particular, designated sites (ecological) and effects on these sites should be avoided for any intervention. If a significant environmental effect is anticipated on a designated site, alternatives should be pursued and the mitigation hierarchy applied to these alternatives. ▪ Carry out an HRA in support of the Thematic and Area Transport Strategies, using the outcomes to guide interventions; ▪ Any intervention should commit to providing BNG as part of the design and consider opportunities for habitat provision and enhancement opportunities for protected species. WSCC should commit to an overall target of 10% BNG provision throughout the lifetime of the WSTP in accordance with upcoming Environment Bill 2019-2021; ▪ Scheme proposals should consider biodiversity issues in their design and include considerations for reinforcing existing wildlife corridors, providing new biodiversity opportunities, restoring and connecting habitats and providing GI; ▪ Maximise habitat for pollinators through planting wildflower grass mix along transport corridors rather than amenity grass; ▪ The design and implementation of larger interventions should go through the EIA process and/or other environmental assessment to properly quantify effects on receptors and seek to improve biodiversity conditions as part of design and mitigation measures; and ▪ WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable, to ensure conformance with the sustainability objective is achieved. 	<ul style="list-style-type: none"> ▪ In general, commitments to avoid designated biodiversity assets and the implementation of other mitigation and enhancement measures will see an improvement at point of implementation. ▪ Increasing habitat for pollinators along the transport corridors will lead to long term enhancements for insects and the species that depend upon them.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.</p>	<p>The connectivity of biodiversity habitats and GI is key objective to improving the biodiversity throughout West Sussex. Physical infrastructure interventions in particular have the potential to negatively impact this objective as they often compete for use of the same land and have the potential to sever GI and habitat corridors.</p>	<ul style="list-style-type: none"> ▪ Any intervention should commit to providing BNG as part of the design and consider opportunities for habitat provision. WSCC should commit to an overall target of 10% BNG provision throughout the lifetime of the WSTP in accordance with upcoming Environment Bill 2019-2021; ▪ Scheme proposals should consider biodiversity issues in their design and include considerations for reinforcing existing wildlife corridors, providing new biodiversity opportunities, restoring and connecting habitats and providing GI; ▪ Large scale road schemes should be considered only if no other alternative is suitable to issues as they will involve an unavoidable element of natural capital reduction and fragmentation; ▪ Sustainable transport corridors and other active transport interventions should be combined, where the opportunity allows, with opportunities to develop GI corridors; and ▪ WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable, to ensure conformance with the sustainability objective is achieved. 	<ul style="list-style-type: none"> ▪ For smaller scale interventions, mitigation measures will alleviate negative effects; ▪ For larger interventions, namely new highway schemes, mitigation measures will reduce but may not eliminate negative effects.
<p>6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.</p>	<p>West Sussex has a number of AQMAs throughout major urban centres in the county, associated with the road network. Local authorities must work to address these specifically as well as air quality as a whole.</p> <p>Although the WSTP is committed to addressing air quality issues the provision of any infrastructure and economic development that encourages increased fossil fuel usage or industrial activity will result in adverse air quality effects.</p>	<ul style="list-style-type: none"> ▪ Air Quality Action Plans should be implemented as part of Thematic and Area Transport Strategies. These should include measures to complement interventions, such as promotion and encouragement of active transport, inclusion of EV charging infrastructure and / or provision of screening measures such as vegetation provision; ▪ In general, measures to discourage individual car trips over other alternative transport modes (active, shared and public transport) should be implemented; and ▪ New highway schemes have the potential to lead to significant negative air quality affects to nearby receptors and introduce new receptors to negative air quality effects. If alternative interventions are not feasible, then avoidance of receptors should be pursued alongside measures such as accompanying provision of electric vehicle charging infrastructure, shared and active transport facilities and the prioritisation and promotion of these transport modes. 	<ul style="list-style-type: none"> ▪ For new highway interventions this will reduce the negative effects. However, an overall negative effect may still be experienced depending on the nature and scale of the intervention and the impact of mitigation.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.</p>	<p>The plan does not currently provide enough attention to GHG emission reductions and the nature of interventions does not conform with the change in the transport network required to address the Climate Change Emergency or meet national targets for GHG emissions reduction.</p> <p>The WSTP and wider WSCC policy commits to achieving net zero carbon emissions by 2050. However, any physical intervention will result in GHG emissions through embodied emissions and construction and, if associated with fossil fuel-based transport, will result in operational GHG emissions. In particular the focus on highway upgrades and new road schemes will have an unavoidable negative effect on GHG emissions and may prevent this net zero target being achieved.</p>	<ul style="list-style-type: none"> ▪ A carbon appraisal system should be established for a potential major highway intervention to establish its carbon impact and if carbon benefits can be achieved. ▪ Provision of infrastructure in the form of new highway schemes will result in an unavoidable increase in GHG emissions. Similar to air quality, measures should be implemented to reduce this through discouragement of car mode trips through provision of active, shared and public transport alternatives (and the promotion and prioritisation of these); ▪ EV infrastructure provision should also be encouraged where appropriate to ensure further localised emission reductions. While not resolving GHG emission issues, a significant EV uptake would significantly contribute to countywide emissions reduction; ▪ Designs should prioritise efficient movement of vehicles to ensure that congestion does not becoming a problem result in additional localised emissions; ▪ Overarching themes of reducing car mode share, encouraging sustainable transport and reducing the distance and frequency of trip requirements should be considered for all interventions; and ▪ A carbon emissions reduction target should be established as part of the LTP. This target should be decided upon after completing a baseline appraisal of carbon emissions for the West Sussex transport network. 	<ul style="list-style-type: none"> ▪ For new highway interventions, such as the A27 Arundel Bypass, this has the potential to reduce the negative effects. However, an overall negative effect may still be experienced depending on the nature and scale of the intervention and the impact of mitigation.
<p>8. Ensure that the local transport network builds resilience to climate change.</p>	<p>The plan does not currently specifically provide enough attention to flood risk and climate change impacts. Although the need to mitigate against climate change is acknowledged, the nature of this mitigation should be developed.</p> <p>Transport interventions, including the provision of new infrastructure, needs to be resilient to the impacts of climate change such as flooding, severe weather or temperatures and increased precipitation.</p>	<ul style="list-style-type: none"> ▪ Carry out a Strategic Flood Risk Assessment (SFRA) in support of the WSTP, applying the outcomes to WSTP strategies, objectives and interventions. Major issues can be effectively avoided by taking into account identified flood risks. Targets around flood risk reduction and prevention should be introduced alongside the SFRA; ▪ As flood risk is a key risk in relation to climate change, any intervention that introduces physical infrastructure (either new infrastructure or upgraded) should consider flood risk, provide flood defence opportunities or flood risk benefit where practicable; ▪ Non-hard engineering approaches that are more resilient to climate change should be considered in the design of interventions where practicable; and ▪ Design of interventions should consider non-flood related climate change risks (extreme weather and temperatures), integrate technology into extreme weather warning communications to transport users, and ensure measures such as appropriate shading at shared transport facilities and appropriate materials are included to avoid potential issues such as melting tarmac and cracking road surfaces. 	<ul style="list-style-type: none"> ▪ In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.</p>	<p>West Sussex has a number of NIAs throughout major urban centres in the county, associated with the road network. Local authorities must work to address these. Additionally, noise levels are a general concern, in particular in congested urban areas and otherwise tranquil rural locations. Although the WSTP is committed to addressing noise levels issues, the provision of any new infrastructure, particularly new road schemes, and economic development that encourages increased motorised vehicle usage would result in increased noise levels.</p>	<ul style="list-style-type: none"> ▪ As a key issue throughout West Sussex, Noise action plans and management plans should be implemented as part of Thematic and Area Transport Strategies. These should include measures to complement interventions, such as promotion and encouragement of active transport or provision of vegetation to screen noise barriers; ▪ In general, measures to discourage individual car trips over other alternative transport modes (active, shared and rail) should be implemented; and ▪ New highway schemes have the potential to lead to significant negative noise effects to nearby receptors and introduce new receptors to negative noise effects. If alternative interventions are not feasible, then avoidance of receptors should be pursued alongside measures such as accompanying provision of shared and active transport facilities and the prioritisation and promotion of these transport modes. 	<ul style="list-style-type: none"> ▪ For new highway interventions the mitigation has the potential to reduce the negative effects. However, an overall negative effect may still be experienced depending on the nature and scale of the intervention and the impact of mitigation.
<p>10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.</p>	<p>The setting and context of these designated areas is inherently rural. Any physical intervention taking place in SDNP of the two AONBs within the county has the potential to negatively impact the character of these areas, even if the purpose is to improve access to these.</p>	<ul style="list-style-type: none"> ▪ The design of interventions regardless of scale should be sensitive to the surrounding landscape, theme of said landscape/settlements and assets within said landscape. This is relevant to both rural and urban interventions, if an intervention is found to have significant negative effects on landscape assets, it should not be pursued. Alternatives should then be considered and the mitigation hierarchy applied to these alternatives; ▪ The design and implementation of larger interventions should go through the EIA process and/or other environmental assessment to properly quantify effects on receptors and seek to improve landscape conditions as part of design and mitigation measures; ▪ Interventions within the SDNP and High Weald AONB should be carried out with cooperation from the relevant authority to ensure that they do not adversely impact the landscape character or International Dark Sky Reserve Status of the SDNP. These authorities should be engaged as part of the implementation of the thematic and area transport strategies; ▪ Minimisation of visual impact of any intervention infrastructure should be a consideration throughout the WSTP implementation; and ▪ WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable, to ensure conformance with the sustainability objective is achieved. 	<ul style="list-style-type: none"> ▪ In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>11. To protect and enhance West Sussex’s historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.</p>	<p>Any interventions taking place in urban environments are likely to be in close proximity to designated heritage assets. There is the potential to damage or otherwise negatively impact these assets if appropriate consideration in the design and construction of interventions is not applied.</p>	<ul style="list-style-type: none"> ▪ The design of interventions regardless of scale should be sensitive to adjacent heritage assets. In an urban setting, many assets will likely be directly adjacent to roads and subsequent intervention focuses. In rural setting, the potential for buried heritage assets will be more prevalent; ▪ As with other receptors, avoidance of heritage assets in the implementation of the WSTP should be a key consideration, in particular for urban areas. If unavoidable, early assessment of effects on heritage assets in intervention design and statutory processes such as EIA is crucial to ensure appropriate mitigation measures are incorporated; and ▪ There is an opportunity to enhance the setting of heritage assets in urban environments with the provision of active transport interventions and highway improvements. Opportunities for aesthetic and setting enhancements should be considered where practicable. 	<ul style="list-style-type: none"> ▪ In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.
<p>12. To protect and where possible, enhance water quality of the County’s rivers, groundwater and coast.</p>	<p>The plan does not currently specifically provide enough attention to the impacts of the transport network on water quality. The main issues associated with the transport is runoff from users of the network and direct alterations to water bodies as a result of implementation of interventions (such as the construction of a new bridge over a river). Increased trips and capacity on the existing road network would increase rates of runoff and pollution without appropriate measures to mitigate this.</p>	<ul style="list-style-type: none"> ▪ The incorporation of Sustainable Drainage Systems (SuDS) into all interventions where practicable; ▪ Avoidance of alteration and crossing of watercourses should be a consideration of any physical intervention. If avoidance is not possible a system to identify vulnerable watercourses with the potential to be affected by multiple interventions should be developed and included in the implementation of the WSTP; and ▪ Enhancement and restoration potential should be considered for interventions near watercourses. Interventions such as sustainable transport corridors have the opportunity to integrate improvements to watercourses and associated habitats within their design. 	<ul style="list-style-type: none"> ▪ In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.
<p>13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.</p>	<p>The plan does not currently specifically provide enough attention to flood risk and climate change impacts. Although the need to mitigate against climate change is acknowledged, the nature of this mitigation should be developed. Physical interventions will result in increased hard and impermeable surfaces and an increased surface run-off. This will result in an increased flood risk not only at the location of interventions, but downstream as well. The cumulative impact of multiple interventions is a particular consideration for any strategy, as multiple flood risk increasing interventions could significantly impact West Sussex’s flood risk context.</p>	<ul style="list-style-type: none"> ▪ Carry out an SFRA in support of the WSTP, applying the outcomes to WSTP strategies, objectives and interventions. Major issues can be effectively avoided by taking into account identified flood risks. Targets around flood risk reduction and prevention should be introduced alongside the SFRA; and ▪ As flood risk is a key risk in relation to climate change, any intervention that introduces physical infrastructure (either new infrastructure or upgraded) should provide flood defence opportunities or flood risk benefit where practicable. 	<ul style="list-style-type: none"> ▪ In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.

Sustainability Objective	Issue	Mitigation Proposed	Opportunities for Enhancement
<p>14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.</p>	<p>The WSTP makes a mostly positive contribution to addressing demographic change through the identification of the need to reform, improve and alter elements of the transport network to account for future changes.</p> <p>Issues arise in the forms that the interventions may take, there is the potential for localised impacts on receptors in areas of interventions as well as the potential to not adequately accommodate the increased demands for transport.</p>	<p>None required.</p>	<p>Not applicable.</p>
<p>15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.</p>	<p>The WSTP make a mostly positive contribution to addressing health and wellbeing through providing NMU and non-car-based options of transport alongside measures to increase accessibility to services and reduce air pollution and noise levels.</p> <p>Issues arise in the forms that the interventions may take, there is the potential for localised impacts on receptors in areas of interventions as well as the potential that interventions designed to address other objectives negatively impact local community's health and wellbeing through their nature and proximity to these receptors.</p>	<ul style="list-style-type: none"> ▪ Interventions such as new highway schemes, without active transport inclusion, do not improve accessibility or options to pursue active transport for local communities. These interventions also have the potential to increase community severance and make access and options for these transport measures worse; and ▪ Highway interventions should include active transport facilities within their design where practicable and in particular ensure crossing and access points should be included to ensure that existing active transport options are not negatively affected by new highway schemes. 	<ul style="list-style-type: none"> ▪ For new highway interventions this will reduce the negative effects. However, an overall negative effect may still be experienced depending on the nature and scale of the intervention.
<p>16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.</p>	<p>The WSTP makes a mostly positive contribution to addressing the need to sustain economic prosperity as a direct or indirect consequence of interventions to support the transport network.</p> <p>Issues will arise if interventions require development on new areas of land or in proximity to sensitive environmental and urban receptors. Economic development is usually associated with negative environmental effects with the risk of required interventions causing fragmentation of biodiversity, GI or vulnerable and isolated communities.</p>	<p>None required.</p>	<p>Not applicable.</p>

6.7 Monitoring Requirements

- 6.7.1. 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 environmental outcomes of the WSTP, and to measure the performance of the plan against the Sustainability Objectives and other environmental targets. Monitoring is also used to manage uncertainty, improve knowledge, enhance transparency and accountability, and to manage environmental information.
- 6.7.2. It is assumed that continued monitoring of habitat quality, protected sites, AQMAs, NIAs and other designated areas would be undertaken regardless of the WSTP.

Table 6-6 – Proposed Monitoring Framework

Sustainability Objective	Monitoring Requirements	Point of Implementation
1. To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.	<p>Incorporate into Benefit Realisation Plans and collate a record of BNG and biodiversity enhancement provision for interventions throughout the lifetime of the plan.</p> <p>Record the biodiversity conditions arising from the reduced mowing and verge maintenance regimes across the transport network resulting from COVID-19 conditions. Similar areas where vegetation has been left unmanaged or managed in a reduce intensity should also be compared to previous regimes.</p>	WSCC

Sustainability Objective	Monitoring Requirements	Point of Implementation
<p>2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.</p>	<p>Maintain records of waste materials re-used in construction of new transport infrastructure material and waste conservation efforts.</p> <p>Maintain records of maintenance checks of associated WSTP interventions to establish an improvement in the life of materials.</p>	<p>WSCC</p>
<p>3. To protect soils and minimise the loss of valuable agricultural and other land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.</p>	<p>Review areas of brownfield land to determine if they are being utilised in support of the WSTP.</p> <p>Review areas of valuable agricultural land change over time to ensure that transport infrastructure and related developments are not responsible for reductions in area.</p>	<p>WSCC</p>

Sustainability Objective	Monitoring Requirements	Point of Implementation
<p>4. To protect and enhance the County’s biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.</p>	<p>Status of protected areas and species (including local sites) should be incorporated into any WSTP review process throughout the plan lifetime, such as SSSI Unit condition.</p> <p>Measurable criteria should be able to be established in this monitoring process to establish the negative effects on protected areas and species.</p> <p>Target of 10% BNG provision (see Section 6.6) should be monitored to ensure compliance.</p> <p>Record the biodiversity conditions arising from the reduced mowing and verge maintenance regimes resulting from COVID-19 conditions. Similar areas where vegetation has been left unmanaged or managed in a reduce intensity should also be compared to previous regimes.</p>	<p>WSSCC</p>
<p>5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.</p>	<p>Record the length of GI net gain through the transport network</p>	<p>WSSCC</p>
<p>6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.</p>	<p>Review annual air quality monitoring reports to inform annual Action Plan reviews. Develop/review Air Quality Action Plans to tackle specific arising issues if required.</p>	<p>WSSCC</p>

Sustainability Objective	Monitoring Requirements	Point of Implementation
7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	Incorporate carbon impacts into Benefit Realisation Plans. See Table 6-5 for Carbon Appraisal system. Monitoring of carbon reduction targets as part of the LTP (in line with the net zero by 2050 commitment) will be reported in an annual monitoring report and used to guide decision-making as the Plan is implemented.	WSCC
8. Ensure that the local transport network builds resilience to climate change.	None required	Not applicable
9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	Monitor the number of noise important areas. Develop Noise Action Plans to tackle specific arising issues if required.	WSCC
10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	Report on overall impact of interventions on landscape assets in Benefit Realisation Plans.	WSCC
11. To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	Report on overall impact of interventions on heritage assets in Benefit Realisation Plans.	WSCC
12. To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.	Coordinate with EA monitoring of water quality and review annual results.	Local Authority

Sustainability Objective	Monitoring Requirements	Point of Implementation
13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	Monitoring around flood risk reduction and prevention targets as developed in the SFRA.	Not applicable
14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	None required	Not applicable
15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	Uptake of new active travel routes should be monitored through public surveys or users counts.	Not applicable
16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	None required	Not applicable

6.8 SEA Conclusion

WSTP Strategies Summary

6.8.1. **Table 6-7** below summarises the effects identified in relation to the Sustainability Objectives identified in the above assessments:

Table 6-7 – SEA Summary

Sustainability Objective	Summary of Effects
<p>1. To maintain and enhance the provision of ecosystem services from the County’s natural capital and contribute to biodiversity net gain.</p>	<p>Mostly mixed effects, with some negative and positive effects. All physical interventions have the potential to negatively affect natural capital and biodiversity. Depending on the location of the interventions and the nature of the intervention, these effects may range from positive to negative.</p>
<p>2. To conserve natural resources, increase resource efficiency and reduce generation and disposal of waste.</p>	<p>Mostly negligible, positive or mixed effects. Negative effects will mostly be associated with resource use to construct interventions or the continued prioritisation of fossil-fuel based schemes. Positive effects will mostly be associated with reduction in private vehicle based trips.</p>
<p>3. To protect soils and minimise the loss of valuable agricultural and other land and Improve efficiency of land use through the re-use of previously developed land and existing buildings.</p>	<p>Mostly negligible effects.</p>
<p>4. To protect and enhance the County’s biodiversity, fauna and flora, in particular, but not limited to, the following two areas; having regard to conserving (including enhancing and restoring) habitats (including designated priority habitats inventory) and species of principal importance, and avoiding actions which damage, or will be contrary to objectives to conserve and enhance the special features of sites of special scientific interest, or conservation objectives of international sites as defined in the Habitats Regulations.</p>	<p>Mostly mixed effects, with some negative and positive effects. All physical interventions have the potential to negatively affect biodiversity and protected areas, the effects will depend on the location of interventions.</p>
<p>5. Enhance the connectivity between habitats through the creation of green corridors and preservation / enhancement of the Green Infrastructure Network.</p>	<p>Mostly mixed effects, with some negative and positive effects. All physical interventions have the potential to negatively effect and fragment the GI network. Depending on the location of the interventions and the nature of the intervention, these effects may range from positive to negative.</p>

Sustainability Objective	Summary of Effects
6. To reduce traffic related air pollution in AQMAs and where possible, enhance air quality elsewhere in West Sussex.	Mainly mixed effects, with some positive effects. The WSTP includes strategies which will reduce fossil fuel car usage, reduce congestion and increase alternative transport usage which in turn will improve air quality.
7. To reduce emissions of greenhouse gases and the reliance of the transport network on fossil fuels in line with the commitment to net zero carbon emissions by 2050, and the LTP carbon targets to be set in 2022.	Negative (and one significant negative) effects in relation to some strategies, with mixed effects and some positive effects in relation to strategies and types of interventions. The WSTP includes strategies which will reduce fossil fuel car usage, reduce congestion and increase alternative transport usage which in turn will reduce GHG emissions associated with transport. However the overall nature of the LTP will lead to large GHG emissions from the construction of interventions and does not provide the level of modal change required to align with the target of net zero emissions by 2050.
8. Ensure that the local transport network builds resilience to climate change.	The effects are mostly negligible or uncertain due to mitigation commitments (though detail on these is minimal).
9. To reduce noise from transport related sources in particular in Noise Important Areas and protect tranquil areas.	Mainly mixed effects, with some positive effects. The WSTP includes strategies which will reduce fossil fuel car usage, reduce congestion and increase alternative transport usage which in turn reduce noise pollution.
10. To protect and where possible, enhance the quality, character and diversity of the existing landscape, with particular care given to the SDNP and designated AONBs.	Mostly negligible or mixed effects. Impacts in urban areas will be limited, with the main source of negative effects being new road schemes. Positive effects are associated with active travel provision and integration into the landscape / townscape setting.
11. To protect and enhance West Sussex's historic environment including heritage resources, historic buildings, historic landscapes and archaeological features.	Mostly negligible or mixed effects. Effects will be mostly limited to urban areas and associated with construction in proximity to heritage assets.

Sustainability Objective	Summary of Effects
12. To protect and where possible, enhance water quality of the County's rivers, groundwater and coast.	The effects are unclear and require additional information and clarity within the WSTP.
13. To reduce vulnerability to flooding of transport infrastructure and ensure that the risk of surface water flooding is reduced by any implemented scheme or initiative.	The effects are mostly negligible or uncertain due to mitigation commitments (though detail on these is minimal).
14. To sustain and develop the county's social and cultural infrastructure through increased connectivity of communities and to increase the capacity and efficiency of the transportation network to support demographic changes, including increasing travel by sustainable modes of transport.	Mainly positive effects. A primary focus of WSTP interventions is improving connectivity through active and shared transport provision.
15. To improve the mental and physical health and well-being of the population through access to transport, active travel and reductions in pollution.	Mainly positive effects, with some mixed effects. Active travel provision is one of the key components of the WSTP, along with reducing congestion and increasing connectivity. In-combination, these contribute to improved health and well-being.
16. To sustain economic prosperity, enable well paid employment and competitiveness across West Sussex through provision of reliable and accessible transport networks.	Mainly positive effects. Support of needs of the transport network, in particular alleviating congestion, will result in economic benefits.

SEA Recommendations for the WSTP

6.8.2. **Table 6-8** below lists the measures noted in the **Chapter 6** of the SA where updates to the WSTP document are recommended.

Table 6-8 – SEA Recommendations for the WSTP

Recommendations	Responsibility for Implementation
<p>Incorporate mitigation recommendations detailed in Section 6.6 into the draft WSTP. Key measures that are recommended to implement include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ Undertake an SFRA in support of the WSTP; ▪ Establish a carbon impact appraisal system for potential major highway interventions; ▪ Carry out an HRA in support of Thematic and Area Transport Strategies; ▪ Incorporate overarching BNG commitments into the WSTP; ▪ Incorporate Air Quality Action Plans and Noise Action Plans into Thematic and Area Transport Strategies; ▪ Incorporate clarity, commitments and targets in relation to climate change resilience, water quality and flood risk into the WSTP; ▪ A carbon emissions reduction target should be established as part of the LTP. This target should be decided upon after completing a baseline appraisal of carbon emissions for the West Sussex transport network; and ▪ WSCC will consult further with NE before the WSTP is finalised to explore potential targets and indicators that can be applied to interventions, when applicable, to ensure conformance with sustainability objectives 1, 3, 4, 5 and 10 is achieved. 	<p>WSCC</p>

Recommendations	Responsibility for Implementation
<p>Incorporate monitoring recommendations detailed in Section 6.7 into the monitoring framework of the draft WSTP. Key measures that are recommended to implement include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ Establishing a record of BNG and GI provision for interventions associated with the WSTP; ▪ Monitoring of carbon reduction targets as part of the LTP (in line with the net zero by 2050 commitment) will be reported in an annual monitoring report and used to guide decision-making as the Plan is implemented; ▪ Record biodiversity conditions arising as a result of the differing approach to management necessitated by the COVID-19 pandemic; ▪ Establish a WSTP review procedure that includes the monitoring of potentially affected assets; ▪ Monitor Air Quality Action Plans and Noise Action Plans and a review process for said Action Plans; and ▪ Establish a coordination of monitoring with statutory bodies such as the EA. 	<p>WSCC</p>
<p>The Road Network Strategy is the source of the majority of negative effects of the Thematic Transport Strategies. Road interventions, in particular major interventions and new roads, are unsustainable and would result in negative effects in relation to most sustainability objectives, in particular biodiversity and GHG objectives. It is recommended that the Road Network Strategy be minimised where practicable to interventions that upgrade existing infrastructure with an aim to address congestion. New road interventions and interventions with an aim to increase capacity should be avoided as this will conflict with the intention to reduce car trips. The Adur, Arun, Chichester, Crawley, Horsham and Worthing should similarly have their focus on road interventions reduced in line with the above. The major interventions on the A27 and Crawley Western Link Road in particular are a major source of negative effects.</p>	<p>WSCC</p>

Recommendations	Responsibility for Implementation
<p>The nature of the LTP, the strategies and interventions within the LTP will not deliver the change in the transport network required to address the Climate Change Emergency or meet national targets for GHG emissions reduction. While much of the plan shifts West Sussex in the right direction to begin transformative change to shared, active and rail travel, the continued place of private fossil fuel vehicles as the primary mode of transport remains the key barrier to achieving net zero. It is recommended that interventions focusing on improving capacity of the road network for private motor vehicles and the provision of new private vehicle based infrastructure is minimised where practicable.</p>	WSCC
<p>Commitments to BNG and other mitigation measures such as flood risk mitigation are committed to in the LTP but details on how these measures will be implemented is not present. It is recommended that these development of plans to implement this mitigation, in particular BNG and flood risk mitigation, are further developed.</p>	WSCC
<p>The effects of the LTP on water resources in West Sussex is currently uncertain. Further clarity on any interventions interacting with water resources is recommended to be provided in the LTP, along with proposed methods for avoiding and mitigating adverse effects.</p>	WSCC

SEA Process Conclusion

- 6.8.3. The SEA process is not yet complete due to the recommendations detailed above in **Table 6-8**. The WSTP lifetime extends to 2036, and the monitoring and implementation process will continue throughout this lifetime. Many interventions throughout this time will require detailed environmental assessment, and the WSTP should influence the design and implementation of these interventions.
- 6.8.4. A system to monitor the mitigation measures recommended in the SEA as well as the overall performance of the WSTP in relation to the sustainability objectives will need to be established. It is intended that these will be part of the WSTP objective and target monitoring process and carried out in parallel with other monitoring efforts.

- 6.8.5. As actions are implemented impacts can be assessed at a specific and local level. Risks of negative impacts may arise through the methods of implementation for an intervention. The SEA cannot account for all these negative impacts and as a result local authorities have a key role in ensuring sustainability objectives are met at the point of implementation, referring to the SEA and WSTP throughout that process.

7 Habitats Regulation Assessment

7.1 Introduction

- 7.1.1. Under The Conservation of Habitats and Species Regulations 2017 (as amended) [For more information see: The [Conservation of Habitats and Species Regulations 2017](#). [online] [Accessed 07/12/18]] 'Competent Authorities' must assess Plans and projects for their potential to cause Likely Significant Effects (LSE) on Habitats sites.
- 7.1.2. There are a large number of Habitats sites in West Sussex and within 10km of the WSCC boundary, and following initial review (pre-screening) it was determined that there may be implications for some of these sites from the proposals and objectives in the LTP and Habitats Regulations Assessment (HRA) Screening was required.
- 7.1.3. HRA Stage 1 (Screening) represents the first step in the process. The focus of the HRA process is on the potential for adverse effects as a result of the LTP policies on the integrity of European nature conservation sites. A full HRA Screening Report has been prepared by WSP for the WSCC LTP, this technical note provides a summary of this report.
- 7.1.4. Statutory consultation forms an essential part of an HRA exercise and the conclusions and recommendations of this HRA report are subject to consultation comments and advice from Natural England.

Approach to HRA

- 7.1.5. Defra guidance [For more information see: Department for Environment Food & Rural Affairs (2021). [Changes to the Habitats Regulations 2017](#). [online]] states that Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK no longer form part of the EU's Natura 2000 ecological network. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:
- existing SACs and SPAs; and
 - new SACs and SPAs designated under these Regulations.
- 7.1.6. Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network.
- 7.1.7. At the highest level, guidance on the Habitats Directive [For more information see: Assessment of plans and projects significantly affecting Natura 2000 sites (European Commission, 2001)]. sets out the step wise approach which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4). As set out in Regulation 3 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 where Natura 2000 sites are referenced in previously issued guidance, this should be interpreted as relating to the national site network but does not otherwise affect guidance as it applied, before EU exit day.
- Stage 1: Screening: the process which initially identifies the likely impacts upon a Natura 2000 site of a plan or project, either alone or in combination with other plans or projects and considers whether these impacts are likely to be significant.

- Stage 2: Appropriate Assessment (AA): the detailed consideration of the impact on the integrity of the Natura 2000 sites of the plan or project, either alone or in combination with other plans or projects, with respect to the site's conservation objectives and its structure and function. This is to determine whether there will be adverse effects on the integrity of the site. Specific guidance on this stage is provided in habitat regulations guidance note 1 [For more information see: English Nature (2004). Habitat Regulations Guidance Note #1: The Appropriate Assessment (Regulation 48), The Conservation (Natural Habitats & c.) Regulations, 1994.].
- Stage 3: Assessment of Alternative Solutions: the processes that examine alternative ways of achieving the objectives of the plans or projects that avoid adverse impacts on the integrity of the Natura 2000 site.
- Stage 4: Assessment where no Alternative Solutions Exist and where Adverse Impacts Remain: an assessment of whether the development is necessary for Imperative Reasons of Overriding Public Interest (IROPI) and, if so, of the compensatory measures needed to maintain the overall coherence of the Natura 2000 network.

7.1.8. The HRA report presents the findings of the Screening undertaken as part of Stage 1 of the HRA process to establish whether or not the likely impacts of the WSCC LTP4 Draft Strategy could have LSE on Habitats sites. A summary of these findings is provided below.

7.2 Relevant Sites

- 7.2.1. Relevant Habitats sites include all those that fall within a potential Zone of Influence (ZOI) for the relevant policies and visions of the LTP. The ZOI is defined by the potential effects arising from the project or plan and the available pathways for those effects to reach and impact the interest features of Habitats sites.
- 7.2.2. In order to identify all strategic corridors where potential direct, indirect and in-combination effects could reasonably be considered possible, an initial buffer of 10km around the WSCC boundary was applied (30km for bats as highly mobile species). The premise is that 10km represents the average trip length from the National Transport Survey and therefore identifies the area of greatest risk of LSE.
- 7.2.3. Thirty-one Habitats sites lie within the potential ZOI for the LTP, including eight SPAs, five Ramsar and 18 SAC's located within the search areas. Information summarising the vulnerabilities of each Habitats site is detailed in the HRA report, including identified pressures and threats from the Conservation Objectives (and supplementary advice) for each site.

7.3 Assessment of Impacts

- 7.3.1. There are a large number of Habitats sites in West Sussex and within 10km of the WSCC boundary, and there will be implications for some of these sites from the proposals and objectives in the LTP, including in-combination with other Plans and Projects.
- 7.3.2. The WSCC LTP4 Draft Strategy proposes an approach for addressing current and future transport issues in the County and has been subject to HRA screening for potential LSE on Habitats sites at a strategic level.

- 7.3.3. A number of policies, interventions and area strategies have been screened-out due to their nugatory or beneficial effects on Habitats sites, but others were screened-in for their further consideration at Stage 2 AA. These proposals are related primarily to proposed new infrastructure or improvement schemes, for which limited information is currently available.

7.4 HRA Recommendations for the WSTP

- 7.4.1. Given the possibility of LSE associated with the screened-in interventions, both alone and in-combination, further, detailed assessment through Appropriate Assessment is considered necessary at a project-level or implementation plan basis to satisfy the requirements of the Habitats Regulations. It should be noted that no further assessment is required in relation to Crawley, Worthing and Adur's Area Strategies as no potential LSE have been identified.
- 7.4.2. The following over-arching statement are recommended for incorporation within the accompanying supplementary guidance or directly within the WSTP4:
- a) *any transport interventions that would be likely to have a significant effect on a Habitats site, either alone or in combination with other plans or projects, will need to be subject to further assessment under part 6 of the Habitats Regulations at additional plan or project application stage. The policies or measures identified within the WSTP4 as screened out of further assessment would not require more detailed consideration unless changes to these or the baseline Habitats sites indicate otherwise at the time of implementation.*

8 Health Impact Assessment

8.1 Introduction

- 8.1.1. The consideration of health within the impact assessment process is mandatory. As part of the White Paper 'Choosing Health', there is a commitment to building health into all future policy by including it as a component in impact assessments; a Health Impact Assessment (HIA). However, this HIA is being carried out as part of a wider Sustainability Appraisal for the WSTP.
- 8.1.2. The HIA needs to assess the WSTP against the public health objectives relating to transport, particularly in relation to groups specifically identified as being at risk from transport related actions, including older people, children, those with mental health issues and those with medical conditions. It is important that the assessment of potential health impacts take into account both direct and indirect determinants of health. These include factors in the following groupings:
- Socioeconomic factors:
 - Poverty;
 - Unemployment;
 - Poor quality housing;
 - Crime;
 - Education;
 - Obesity and other health conditions;
 - Ageing population; and
 - Social Exclusion.
 - Pollution:
 - Air pollution;
 - Noise pollution; and
 - Sleep disturbance.
 - Land Use:
 - Agricultural policies.
 - Climate Change:
 - Extreme weather.
- 8.1.3. Consequently, there are significant links with other assessments within the overall Sustainability Appraisal, as all seek to maximise positive impacts and minimise negative ones, and to avoid and / or alleviate a disproportionate impact on any group so that inequalities are not widened, but from different perspectives. For example, Equalities Impact Assessment charts social impacts and the HIA maps potential impacts on health.

8.2 Screening and Scoping

Screening

- 8.2.1. The first stage of a HIA is the screening stage. Screening is done to establish the wider baseline of determinants of health such as education, housing, employment, the environment, crime and transportation as well as the possible impacts of a scheme on people's lifestyle and health services.

Scoping

- 8.2.2. Following the screening stage, if a scheme is deemed to have little or no impact then no further action is required. If a scheme has the potential to have an impact which would require further consideration, the scoping stage is progressed.
- 8.2.3. A recognised approach to determining the need for an HIA is to assess the objectives of the plan against the following outcomes:
- Will the policy have a significant impact on human health by virtue of its effects on the wider determinants of health (including income, crime and housing)?
 - Will there be a significant impact on lifestyle related variables such as physical activity, diet, accidents, or healthier lifestyles?
 - Is there likely to be a significant demand on health and social care services as a result of policies or provision?

8.3 HIA of WSTP Overarching Strategies

- 8.3.1. The WSTP overarching strategy 'Local Living' (see **Chapter 2**) been assessed for the HIA at a strategic policy level, as this reflects the type of plan WSTP represents. Implementation will be via individual schemes in the proposed Thematic Transport Strategies and Area Transport Strategies. The individual schemes in this plan are yet to be approved or later on prioritised, funded or implemented. Health and other impacts will need to be assessed at scheme package and/or individual scheme level as individual schemes are introduced as measures to achieve the three overarching strategies. The results from this assessment have helped in the analysis of WSTPs sustainability. Information from other elements of this Sustainability Appraisal is also likely to inform the HIA, particularly those on sustainable development, environment and equalities. A wide range of direct and indirect benefits and impacts on health issues need consideration, although they have also been considered in the SEA section of this document. For example:
- Policies promoting social integration might improve mental health;
 - Policies aimed at young people might have an impact on risk-taking behaviour;
 - Policies that generate traffic, waste or out of town centres may increase pollution; and
 - Improving facilities for pedestrians and cyclists would promote exercise and health.

Table 8-1 – Health Impact Assessment and the WSTP Summary

WSTP Strategies	Health Impact	Summary
Local Living	+	<p>In summary, promoting local living is anticipated to make a positive contribution towards the health and needs of the community, specifically those in rural areas.</p> <p>Reducing the need to travel and support short distance trips will enable people to spend less time travelling, select active travel for shorter trips, thus generating more time and opportunities for people to take part in other activities which are more beneficial to their health and wellbeing. Moreover, a decrease in long travels should contribute to an improvement to air quality in the local area.</p> <p>A focus on an increase of NMU mode share should have physical health benefits as it encourages physical activity, which in turn will improve obesity management, reduce stress levels, and improve emotional wellbeing.</p> <p>Improving the bus network coverage in rural areas will improve accessibility to the wider area, as well as access to services such as medical care. This should particularly benefit those who are isolated, notably the elderly, due to lack of access to private transport and reliability on public transport which requires improvement. Another benefit of this strategy will be economic, as an improved public transport network may help rural communities access employment opportunities.</p>

WSTP Strategies	Health Impact	Summary
Active Travel Strategy	+	<p>Promoting active travel is anticipated to have a positive effect on the health and wellbeing of West Sussex.</p> <p>A focus on NMU modes of transport and active travel should have a positive impact on physical health. The physical activity associated with NMU modes of transport will aid in reducing levels of obesity as well as cardiovascular diseases associated with mobility. Moreover, the NMU modes of transport are likely to have a positive effect on mental and emotional wellbeing.</p> <p>The active travel strategy aims to improve air and noise quality in the county, which in turn should improve physical health.</p> <p>Improving the NMU and public transport network will also have mental and emotional wellbeing implications as it will decrease levels of severance and isolation, specifically in rural areas.</p>
Shared Transport Strategy	+	<p>The Shared Transport Strategy is anticipated to have an overall positive effect on physical and mental wellbeing within West Sussex.</p> <p>Improvements to the existing bus and community transport network should improve severance and connectivity to services, including health services. In turn, this should have a positive effect on isolation and loneliness, particularly in rural areas.</p> <p>The reduction in the reliance of private car travel, should also have a positive impact on the air and noise levels within the county which will have a positive effect on the physical wellbeing of the population.</p>

WSTP Strategies	Health Impact	Summary
Rail Strategy	+	<p>The Rail Strategy is anticipated to have a positive impact on the physical and mental wellbeing of West Sussex.</p> <p>Improvements to the rail network should reduce levels of severance and isolation as well as enabling people to access a wide range of services, especially health services. This will be particularly noticeable in rural areas.</p> <p>Improvements to the rail network should reduce the reliance on cars, thus helping to improve the air and noise levels in the county which will have positive implications on physical wellbeing.</p>
Access to Gatwick Airport Strategy	+	<p>The Access to Gatwick Airport Strategy is anticipated to have a positive effect on physical and mental wellbeing within West Sussex.</p> <p>Improvements in and around Gatwick Airport are likely to improve air and noise quality within the surrounding area, thus having a positive effect on the physical wellbeing of the population.</p> <p>The overall improvements to the Gatwick Airport transport network should improve levels of severance, isolation and increase access to services, all of which will have a positive impact on the physical and mental wellbeing of the population.</p>
Road Network Strategy	+ / -	<p>The Road Network strategy is anticipated to have a negative effect on physical wellbeing. This is as a result of it encouraging reliance on private car transport which has limited health benefits in comparison to other active modes of transport.</p> <p>The strategy is likely to positively and negatively affect issues around noise and air quality in the county as EV and active travel provision will positively affect these, while new road schemes will negatively affect them.</p> <p>A positive of the strategy is that it aims to improve road safety for users, which will have a positive impact on health. Furthermore, tackling issues such as congestion will have indirect health impacts as it will enable people to spend less time travelling, in turn providing more time for activities which are beneficial for health and wellbeing.</p>

WSTP Strategies	Health Impact	Summary
Adur Area Transport Strategy	+	<p>The Adur Area Transport Strategy is anticipated to have a positive effect on physical and mental wellbeing in the local area.</p> <p>The strategy aims to improve connectivity between areas, thus reducing severance and loneliness. The strategy also promotes active travel which has implications for physical health as it should improve levels of obesity and cardiovascular diseases. Moreover, active travel and NMU modes of transport enable people to spend more time outdoors which has positive effects on mental and emotional wellbeing.</p> <p>The strategy also aims to reduce traffic associated air and noise pollution, which will have a positive impact on physical wellbeing.</p>
Arun Area Transport Strategy	+ / -	<p>The Arun Area Transport Strategy is anticipated to have a positive and negative effect (depending on mitigation measures) on physical and mental wellbeing. This is as a result of the strategy being primarily focused upon improving the existing road network instead of promoting active travel and other modes of transport which have a better impact on physical and mental wellbeing.</p> <p>A positive of the strategy, is that it intends to improve traffic associated noise and air quality levels which will have a positive impact on physical wellbeing. Another positive, is that the strategy should improve the safety of the road network which will positively impact the physical wellbeing of road users.</p>

WSTP Strategies	Health Impact	Summary
Chichester Area Transport Strategy	+	<p>The Chichester Area Transport Strategy is anticipated to have a positive impact on the physical and mental wellbeing of the population. The strategy aims to improve the active travel facility provision and cycle network which will have a positive impact on physical wellbeing as it encourages and enables people to exercise, thus reducing levels of obesity and cardiovascular diseases. Furthermore, this should have a positive impact on mental wellbeing as it enables people to spend more time outdoors.</p> <p>The strategy also aims to improve the bus network which should reduce severance and isolation, as well as enabling people to access services, particularly health services.</p> <p>A negative of the strategy in terms of health and wellbeing, is that it has a strong focus on improving the road network which will have an impact on the noise and air quality levels in the area while also maintaining or increasing the reliance on private car use which has limited health and wellbeing benefits.</p>

WSTP Strategies	Health Impact	Summary
Crawley Area Transport Strategy	+	<p>The Crawley Area Transport Strategy is anticipated to have a positive impact on the physical and mental wellbeing of the population. The strategy aims to improve issues of congestion within the area, resulting in an improvement to air and noise quality, thus improving physical wellbeing. Furthermore, improving congestion will have indirect health impacts as it enables more time for activities which are beneficial for health and wellbeing.</p> <p>The strategy also aims to improve the shared transport facilities, particularly the rail network, which should have a positive impact on severance, isolation and loneliness.</p> <p>Improvements to active travel provision will have positive impacts to health and wellbeing as it encourages people to exercise, thus reducing levels of obesity and cardiovascular diseases. Active travel can also have benefits for mental wellbeing as it can reduce social isolation and enables people to spend more time outdoors.</p>
Horsham Area Transport Strategy	+	<p>The Horsham Area Transport Strategy is anticipated to have a positive impact on physical and mental wellbeing.</p> <p>The strategy promotes active travel which has physical wellbeing benefits as it enables people to exercise, thus reducing levels of obesity and cardiovascular diseases, as well as improving mental wellbeing by reducing isolation and loneliness.</p> <p>The strategy should also lead to an improvement of the air and noise quality of the local area, thus having a positive effect on physical wellbeing.</p> <p>Improving the shared transport network should reduce levels of severance and isolation, as well as improving access to services, such as medical services.</p>

WSTP Strategies	Health Impact	Summary
<p>Area Transport Strategy for Mid Sussex</p>	<p style="text-align: center;">+</p>	<p>The Area Transport Strategy for Mid-Sussex is anticipated to have an overall positive effect on physical and mental wellbeing in Mid-Sussex.</p> <p>The strategy encourages a shift away from car mode trips, focusing instead on active and shared travel. The strategy aims to reduce congestion levels, which will have a positive impact on physical wellbeing as it should reduce levels of traffic associated noise and air pollution. Moreover, reduced congestion should decrease journey time, thus enabling people to spend more time doing activities which are beneficial to their mental and physical wellbeing.</p> <p>Active travel enables people to exercise more, thus reducing levels of obesity and cardiovascular diseases, as well as having mental health benefits by reducing isolation and loneliness.</p> <p>Improvements to shared travel will help to reduce severance and isolation while also increased access to services, particularly medical services. This can be particularly beneficial for the elderly who cannot access a private car and may not be as able to NMU modes of transport.</p>

WSTP Strategies	Health Impact	Summary
South Downs National Park Area Transport Strategy	+	<p>The South Downs National Park Area Transport Strategy is anticipated to have a positive impact on physical and mental wellbeing.</p> <p>The strategy aims to improve the provision of shared and public transport, which will have a positive impact on mental wellbeing as it will improve access to services, as well as reducing severance and isolation. An improvement to public and shared services should also help reduce the reliance on private cars, therefore improving congestion levels, and noise and air quality which has benefits for physical wellbeing.</p> <p>An improvement to active transport routes as part of the strategy should have a positive impact on physical and mental wellbeing. NMU modes of transport typically involve a form of physical exercise, which will help to reduce levels of obesity and cardiovascular diseases.</p> <p>Furthermore, active travel encourages people to spend more time outdoors which has positive implications for mental wellbeing, while also improving levels of isolation.</p>
Worthing Area Transport Strategy	+	<p>The Worthing Area Transport Strategy is anticipated to have a positive effect on physical and mental wellbeing within the area.</p> <p>The strategy aims to improve the provision of active travel which enables people to exercise more, thus reducing levels of obesity and cardiovascular diseases, as well as having mental health benefits by reducing isolation and loneliness.</p> <p>The strategy also aims to improve shared and public transport which should alleviate issues of severance and loneliness as well as improving access to services, particularly medical services.</p>

8.3.2. Opportunities to enhance positive effects and mitigate negative effects should be considered as part of the HIA. It is also important to ensure that input is received from a wider range of stakeholders and sources of information, such as:

- People likely to be affected by the policy (stakeholders, target populations, etc.);
- The best possible sources of evidence available; and
- People who are experts in public health.

- 8.3.3. Evidence can be qualitative, based on findings from completed HIAs, previous analysis and/or quantitative based on research. Responses should therefore be backed up by what evidence has been considered. It is impossible to be completely certain about the potential health and wellbeing impacts, so where there is a good deal of uncertainty, it is important to ensure that potential health impacts are analysed while acknowledging this level of uncertainty within the HIA.
- 8.3.4. Proposals for mitigating factors to reduce negative impacts, or whether positive impacts could be enhanced should be included in future assessments of individual schemes that might be taken forward or introduced. For example, greater emphasis could be placed on strategies to tackle isolation in rural and elderly communities through improvements to public transport.

Conclusions

- 8.3.5. The overarching strategy 'Local Living' set out in the WSTP are anticipated to improve health and wellbeing within WSCC. The WSTP has demonstrated an awareness that transport and health are interconnected, and the strategies aim to implement improvements across both factors. Strategies with a particular focus on improvements to public transport are particularly important, specifically with regards to rural and elderly communities being able to access healthcare services, employment opportunities and reducing isolation.
- 8.3.6. It is recommended that WSCC reconsider the LTP from the context of this technical note. Potential issues are identified mostly with interventions focused on road network upgrades which would require appropriate mitigation to prevent negative effects. A consideration and commitment to this should be included in the LTP.

8.4 Implications for the WSTP

- 8.4.1. The below **Table 8-2** outlines the key challenges in WSCC related to health and wellbeing, which of the WSTP policies are contributing to improving these issues, and further implications to the WSTP.

Table 8-2 – Implications for the WSTP

Topic	Summary of Challenges related directly or indirectly to Health and Wellbeing	Implications for the WSTP
Transport Network	<ul style="list-style-type: none"> ▪ Travel in WSCC is dominated by car travel. This will have effects on human health, particularly around obesity as well as isolation for those who do not have access to a private car; ▪ There are issues with congestion, pollution and road safety issues; ▪ Rail services on West Coastway and Arun Valley Line can create issues of isolation, severance and exacerbate issues of disproportionate access to services throughout the County; ▪ Bus network punctuality and efficiency is an issue. This will create issues of severance, isolation and exacerbate issues of access to services, particularly for those who do not have alternative modes of transport; ▪ The availability of transport services is dependent on location, with rural areas have fewer options and financial viability challenges. This can create issues of severance, isolation and an unequal ability to access services; ▪ The cost of public transport can be a barrier to accessibility. This can cause issues of severance and isolation, as well as creating issues accessing services; and <p>There are severance issues associated with the footways and cycleways. This can discourage the use of these networks, which will have implications on physical activity in the County thus exacerbating health and wellbeing issues (e.g. obesity, cardiovascular diseases etc.).</p>	<p>Ensure that proposals take into account the relationship between transport and health, and therefore seek to have a beneficial impact on health. The SEA of the WSTP has found that this is the case. Plans to reduce congestion, improve air, noise and light pollution should continue to be implemented as well as ensuring schemes are designed with the ability to improve health. Road safety throughout the county should continue to be improved, as well as efforts to encourage alternative modes of transport, including non-motorised forms of travel.</p>
Economy	<ul style="list-style-type: none"> ▪ The performance of the West Sussex economy varies spatially with Coastal West Sussex underperforming compared to areas, such as the Gatwick Diamond, which benefit from strong transport links to London. The economic disparity can lead to issues surrounding health inequalities. 	<p>Proposals should aim to contribute to a reduction in health inequalities, with a particular focus on rural areas and the elderly where possible. An awareness must be shown to the different approaches required across West Sussex, as policies may work better in some areas than in others based on various factors such as age demographics, access to public transport etc. All implementation plans must address the communication needs of different communities.</p>
Social	<ul style="list-style-type: none"> ▪ Growing and ageing population is expected to occur most in existing settlements, as well as across the Coastal West Sussex area, thus increasing demands on transport infrastructure and services; ▪ Risk of isolation in rural areas as public transport has viability challenges and there is a need to travel to access some services which has a disproportionate effect on those groups that depend on these services and public transport; ▪ Transport infrastructure can cause severance and accessibility issues, which prevent access to green and blue spaces, and result in unhealthy lifestyles due to limited opportunities for active travel; ▪ Use of the transport network creates air quality, noise and light pollution that can have an adverse effect on public health and wellbeing impacts. 	<p>An emphasis should be placed on improving social isolation and access to services for the community, particularly those in rural areas and the elderly. Strategies need to take into account the needs of the current community as well as projected community changes, especially with regards to the needs of an increasing ageing population and how transport plays an important role in health and wellbeing. Action plans for air quality and noise should continue to be implemented and designed in order to improve health across the County.</p>
Environment	<ul style="list-style-type: none"> ▪ Usage of the transport network has negative impacts (e.g. air and noise pollution) on the local natural environment, including protected areas. This will have implications on human health; and ▪ The transport network in West Sussex is vulnerable to the weather, particularly increased extreme events due to climate change. This may have implications on the safety of transport users and may lead to issues associated with severance in the future. 	<p>Action plans for air quality and noise should continue to be implemented and designed in order to improve health across the County. Strategies for future transport networks / network improvements should take into account the implications of climate change and the risk this may pose to the safety of users, as well as severance and isolation that may occur due to the transport network vulnerabilities to climate change.</p>

8.5 Monitoring and Evaluation

- 8.5.1. Evaluating the challenges and success of past decision, policies and strategies is an important aspect of developing strategies. Not only should past decisions be examined, but provision for monitoring current and future decisions should also be put in place. This can be in the form of annual reports, surveys etc. that monitor the life of the transport plan. Please see the **Section 6.6** of the SEA which covers the mitigation requirements for the WSTP strategies, objectives and interventions.

9 Equalities Impact Assessment

9.1 Introduction

- 9.1.1. Local authorities have a duty under race, disability and gender legislation to carry out an Equalities Impact Assessment (EqIA) of Local Transport Plans, in this case the WSTP. An EqIA is a tool which draws on a wide range of perspectives to help identify the ways in which council policies, plans and services might affect different groups of people within the community. An EqIA ensures that the WSTP will meet the needs of the community and fulfil the Council's duties under the equalities and anti-discrimination legislation. Department for Transport (DfT) guidance advises that an EqIA encompasses race, religion/belief and sexual orientation. Further to this the Council encourages consideration of impacts on the nine protected characteristics of: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation as part of the EqIA assessment. In addition, the Council also encourages consideration of impacts on part time workers, people with caring responsibilities, different socio economic groups (e.g. unemployed; students) as well as other socially excluded communities or groups (e.g. the homeless).
- 9.1.2. An EqIA assessment is a standalone process, however it can be incorporated into a wider sustainability and appraisal of the SEA objectives. The EqIA is intended to build upon existing and ongoing customer engagement being undertaken by WSTP in order to ensure that equality issues are fully integrated into the WSTP process. It is important that information is gathered in the early stages of developing a LTP as it will help determine whether there is potential for the policy, strategy, procedure or function to result in a less favourable outcome for any group in the community, or unlawful discrimination of any kind.

9.2 EqIA and the WSTP

- 9.2.1. Lack of data is often a barrier towards effective EqIA. Throughout the development and lifetime of the WSTP, the Council should conduct research as well as consultation with the public and with stakeholders. The consultation and research encompasses quantitative and qualitative information gathered from a variety of methods to gain intelligence about local communities. Sources of information will vary depending on the nature of the service, and may include any or all of the following:
- Any previous equality impact assessments;
 - Service monitoring reports;
 - Previous research and customer satisfaction surveys;
 - User feedback and satisfaction reports;
 - Workforce monitoring;
 - Staff surveys, opinions and information from trade unions;
 - Contract monitoring reports;
 - Complaints and comments;
 - Press coverage;
 - Outcome of consultation exercises and feedback from focus groups;

- Feedback from individuals or organisations representing the interests of target groups or similar;
- The knowledge, technical advice, expertise and experience of the people assisting in the completion of the EqIA;
- National and local statistics;
- National and international evidence, where appropriate;
- Information from formal audits;
- Census data; and
- Academic, qualitative and quantitative research demographics.

9.2.2. Unlawful discrimination can never be justified. However, there may be occasions where it is appropriate to begin or continue with a policy, procedure or activity that impacts less favourably on some communities or sections of the community. When reaching this decision, proportionality is a key factor and care must be taken to consider all available opportunities and challenges of these judgments.

9.3 Transport Plan Considerations for Groups with Protected Characteristics

- 9.3.1. Decisions about the provision of highways and transport services that involve the prioritisation of resources will need to be mindful of the potential positive and negative social effects. Transport infrastructure and service investments will influence the ease with which people can access employment, education, health facilities, services, recreation and leisure. Investments in new transport infrastructure can improve quality of life, for example where this helps to address issues such as traffic rat running, or air quality and noise traffic issues in residential areas, but can also have negative social effects, for example where specific road user groups are affected by reallocation of road space to other modes.
- 9.3.2. With respect to potential effects on people with protected characteristics, the following provides a high-level summary of some known key issues in relation to accessing services, using the transport network, and impacts of the transport network on groups with protected characteristics, as well as on some other socio-economic groups. Not all of these issues will be directly influenceable through the WSTP, for example, because they will be the responsibility of transport service providers such as public transport operators, however they provide a summary of some of the key issues for consideration when implementing measures related to the WSTP. It is expected that as individual schemes emerge in relation to the WSTP, effects on people with protected characteristics will need to be considered as part of the development of those schemes.
- 9.3.3. Following this high-level summary, this EqIA goes on to assess implications of the overall WSTP strategy and individual area strategies within the plan, before highlighting some of the key problem area issues and potential mitigations in relation to the WSTP.

Age

- 9.3.4. Key barriers to public transport usage and mobility among children and young people are understood to include the cost, availability and reliability of public transport, and safety issues including in relation to active travel choices. Public transport options are particularly important for young people's access to education and employment opportunities [For more information see: [Why getting transport right matters to young people](#), Campaign for Better Transport, May 2013 [online]].
- 9.3.5. Child obesity is a particular concern, as children living with obesity are more likely to become adults living with obesity and have a higher risk of morbidity, disability and premature mortality in adulthood [For more information see: [Childhood obesity: applying All Our Health Guidance](#), Public Health England, May 2020 [online]]. Inactivity due at least in part to travel choices, is a potential cause of obesity.
- 9.3.6. For older age groups, key considerations for transport planning are understood to include:
- The need for flexible transport options for people in later life with an increased reliance on limited public or community transport options;
 - The design of streets and public realm not meeting older people's needs;
 - Cost of transport options; and
 - The design of vehicles such as public transport and digitisation of information and booking information causing access issues [For more information see: [Ageing and mobility: A grand challenge](#), Centre for Ageing Better, September 2019 [online]].
- 9.3.7. In terms of road safety, nationally, car occupant fatality rates are particularly high for 17-24 year olds and those aged 75 and over, with pedestrian fatality rates particularly high for those aged 75 and over [For more information see: [Reported road casualties in Great Britain: 2019 annual report](#) [online]].

Race

- 9.3.8. People from ethnic minorities are understood to be at a particular risk of transport poverty, along with young people not in education, employment or training, students, older people and women [For more information see: [Transport and inequality: An evidence review for the Department for Transport](#), NatCen, July 2019 [online]]. Shared transport is understood to not be popular with some ethnic minority groups due to fears of racism and harassment, while language difficulties can also be a particular barrier to public transport use [For more information see: [Transport for Everyone: an action plan to promote equality](#), Department for Transport, December 2012 [online]].
- 9.3.9. Research has found large differences in cycling participation, with people from ethnic minorities, along with woman, disabled people, older people and people from a more deprived areas, being less likely to cycle [For more information see: [Bike Life 2019 UK report, Cities for People](#), Sustrans [online]]. This is not because there is not demand, but because of barriers around cycle access and cost, harassment, decision makers not representing the diversity of residents, inadequate storage facilities, and infrastructure not serving the needs of all users.

- 9.3.10. For gypsy and traveller groups, poorly located sites with no easy access to roads or public transport can have a detrimental impact on the ability of residents to access employment, education, health, shopping and other facilities [For more information see: [Designing Gypsy and Traveller Sites, Good Practice Guide](#), Department for Communities and Local Government, May 2008 [online]].

Sex

- 9.3.11. A number of gender imbalances in transport planning have been identified, related to the historical prioritisation given to the car over other forms of transport [For more information see: [Mind the Gender Gap: The Hidden Data Gap in Transport](#), London Reconnections, October 2019 [online]]. Where households have a car, men tend to dominate access to it. While women are more likely to use public transport, this is typically not designed with the needs of the generally more complicated trip-changing travel patterns of women in mind associated with combining unpaid care work and accessing employment more frequently undertaken by women. Stark differences in the perception of danger between men and women after dark and in using public transport have also been identified, as well as an imbalance in that women make up only a fifth of transport sector employees in Europe, with the UK below the European average.

Disability

- 9.3.12. People with disabilities travel less and undertake journeys for different purposes compared with people without disabilities, although the population of people with disabilities is far from homogenous in its behaviour. While people with disabilities are less likely to ever walk or cycle or ever use public transport, compared with those without disabilities, those who experience difficulties with personal care or balance are particularly likely never to undertake these activities [For more information see: [Disabled people's travel behaviour and attitudes to travel](#), Department for Transport, 2017 [online]]. Considering the needs of people with disabilities in the design of transport infrastructure such as streets, crossings and public transport is critical to ensuring the transport network is accessible. Public transport has been identified as an emerging 'high-risk environment' for disability hate crime [For more information see: [Action Against Hate, The UK Government's plan for tackling hate crime](#), Home Office, July 2016 [online]].

Pregnancy/maternity

- 9.3.13. Key issues for transport access with respect to pregnancy/maternity are understood to include the accessibility of pre and post-natal support services, the design of streets and pavements, the accessibility of public transport, and discrimination in relation to breastfeeding on public transport.

Religion or belief

- 9.3.14. As for other protected characteristics, hate crime based on religion or belief is also known to be an issue affecting use of the transport network, in particular public transport. Infrastructure and vehicle design, public transport staff presence and training, and the use of technology are understood to be important in alleviating crime and fear of crime.

Gender Reassignment

- 9.3.15. As for other protected characteristics, hate crime based on gender identity is also known to be an issue affecting use of the transport network, in particular public transport. Infrastructure and vehicle design, public transport staff presence and training, and the use of technology are understood to be important in alleviating crime and fear of crime.

Marriage/civil partnership

- 9.3.16. There are no specific transport planning issues related to marriage/civil partnership identified through this EqlA Technical Note.

Sexual orientation

- 9.3.17. As for other protected characteristics, hate crime based on sexual orientation is also known to be an issue affecting use of the transport network, in particular public transport. Infrastructure and vehicle design, public transport staff presence and training, and the use of technology are understood to be important in alleviating crime and fear of crime.

Potential issues for other groups

- 9.3.18. Issues for carers centre around low incomes / higher transport costs as a result of their caring role, lack of accessible information, and a lack of awareness and provision for the need of travelling with companions.
- 9.3.19. Those who are unemployed or on low incomes tend to distrust the reliability of public transport and transport costs (public or private), and lack both the knowledge of the system and the confidence to travel. There are also affordability issues with car ownership for many low-income households, while lack of suitable transport provision can also reduce access to education and training opportunities [For more information see: [Inequalities in Mobility and Access in the UK Transport System](#), Government Office for Science, Foresight, March 2019 [online]].
- 9.3.20. Rough sleepers are one of the most vulnerable groups in society, and suitable transport to enable access to employment and services is an important issue for this group.

9.4 WSTP Strategies EQIA Impacts

Table 9-1 – WSTP Strategies EQIA Impacts

WSTP Strategies	EQIA Impact	Summary
Local Living	+	<p>In summary, promoting local living is anticipated to make a positive contribution towards equality within West Sussex, specifically for those in rural areas.</p> <p>The improvement to public and shared transport facilities will reduce severance for all communities, notably those in rural areas. As these measures are typically more affordable than private car use, low-income households will be able to access them more readily which will increase access to jobs, services and social activities. Moreover, shared and public transport will be beneficial for the elderly who do not have access to a private car, thus reducing issues of isolation and loneliness.</p> <p>An increased focus on NMU and active travel will help reduce severance as well as improve physical wellbeing through exercise. NMU and active travel will also enable those in rural areas to have increased access to services and facilities, thus decreasing the gap between rural and urban settings.</p>
Active Travel Strategy	+	<p>The Active Travel Strategy is anticipated to have a positive impact on the equality in West Sussex.</p> <p>Promoting Active Travel has a positive impact on physical and mental health, which will have a positive impact on health inequalities in the County. Active travel is also more accessible for low-income households that cannot access a private car and therefore have issues around severance and accessing services, including jobs and medical facilities. With regards to the elderly, active travel will help to reduce isolation.</p> <p>Increased active travel should also decrease the reliance on cars which will help improve congestion as well as noise and air quality in the County, thus improving health inequalities.</p>

WSTP Strategies	EQIA Impact	Summary
Shared Transport Strategy	+	<p>The Shared Transport Strategy is anticipated to have a positive impact on equality within West Sussex.</p> <p>Improving the public transport network will enable people to have improved access to services, jobs, and education. This will have a significant positive impact for those in rural areas, notably the elderly, low-income households and those who do not have access to a private car.</p> <p>Increased public transport services should also reduce the reliance on private cars, thus improving air and noise quality within the County which will improve health inequalities.</p>
Rail Strategy	+	<p>The Rail Strategy is anticipated to have a positive impact on equality within West Sussex.</p> <p>Access to reliable and affordable rail services, particularly for those in rural areas, can have significant benefits with regards to access to services, jobs, and education all of which can improve equality.</p> <p>Furthermore, improvements to rail services should decrease reliance on private cars, thus leading to air and noise quality improvements which will help with health inequalities.</p>
Access to Gatwick Airport Strategy	+	<p>The Access to Gatwick Airport Strategy is anticipated to have a positive impact on equality within West Sussex, however due to the nature of the strategy this impact will be notably localised around Gatwick Airport.</p> <p>The strategy aims to improve the public transport connectivity around Gatwick Airport, therefore improving access to the airport itself as well as economic opportunities associated with the area.</p> <p>The overall improvements to the Gatwick Airport transport network should improve levels of severance and isolation, which will have a positive impact on the mental wellbeing of the population, notably for the elderly.</p>

WSTP Strategies	EQIA Impact	Summary
Road Network Strategy	+ / -	<p>The Road Network Strategy is anticipated to have a negative effect on equality on West Sussex. The strategy aims to improve the road network which will have some benefits surrounding road safety and accessibility to services, employments and education. However, this has limited benefits for those who do not have access to a car and places them at a disadvantage. It can also have economic implications for households that have to be reliant on a car despite the associated costs.</p> <p>The strategy will also have a mixed impact on noise and air quality in the area. New road schemes may negatively effect nearby receptors, but accompanying EV infrastructure and active travel facilities may result in positive effects. Improving the efficiency of the main road network is also expected to have noise and air quality benefits to some local communities by helping to reduce traffic 'rat running' pressures.</p>
Adur Area Transport Strategy	+	<p>The Adur Area Transport Strategy is anticipated to have a positive impact on equality in West Sussex.</p> <p>The strategy aims to improve connectivity between areas, primarily with active transport interventions, therefore enabling increased access to services, jobs and education. This will have a positive economic and social impact.</p> <p>The strategy also aims to improve the West Coastway rail service, as well as use signal technology to support the priority of bus services where these operate frequently, which will have a positive impact on the reliability and accessibility of public and shared transport services.</p> <p>The strategy's promotion of active travel will have a positive impact on equality as it is generally a more accessible mode of transport than private car use, providing increased accessibility to receptors such as low-income households or young people. Furthermore, active travel has health benefits, such as reducing obesity and cardiovascular diseases, which will have a positive impact on health inequalities. The improvement of congestion levels should improve air and noise quality within the area which will improve health inequalities.</p>

WSTP Strategies	EQIA Impact	Summary
Arun Area Transport Strategy	+ / -	<p>The Arun Area Transport Strategy is anticipated to have both positive and negative impacts on equality in West Sussex. The negative effects primarily stem from the strong focus on the road network which predominantly benefits those who have access to a private car and has the potential to impose negative impacts on receptors near major roads, which are likely lower income households.</p> <p>Positive impacts stem from the major provision of active transport alongside these interventions, encouraging healthy lifestyles and cheaper alternative transport and connectivity options of transport. The improvement of congestion levels should improve air and noise quality within the area which will improve health inequalities. The strategy also aims to improve the West Coastway rail service, as well as improve shared transport provision, which will have a positive impact on the reliability and accessibility of public and shared transport services.</p>
Chichester Area Transport Strategy	+	<p>The Chichester Area Transport Strategy is anticipated to have a positive impact on the equality of the area.</p> <p>The strategy aims to improve active travel which will have a positive impact on severance, isolation and loneliness. Improved active travel will also enable low-income households, and those in rural areas to have an improved access to services, jobs and education. The strategy also aims to improve the West Coastway rail service which will have a positive impact on the reliability and accessibility of the service.</p> <p>The strategy also aims to improve the shared transport network. This will have a positive impact on those that do not have access to a private car, notably the elderly, low-income families and those with disabilities. The improvement of congestion levels should improve air and noise quality within the area which will improve health inequalities.</p>

WSTP Strategies	EQIA Impact	Summary
Crawley Area Transport Strategy	+	<p>The Crawley Area Transport Strategy is anticipated to have a positive impact on the equality of the area.</p> <p>The strategy aims to improve the active and shared transport network, and improve access to the rail network, which should have a positive impact on severance, isolation and loneliness particularly for the many receptor groups.</p> <p>The strategy aims to improve congestion levels which should improve air and noise quality within the area which will improve health inequalities.</p>
Horsham Area Transport Strategy	+	<p>The Horsham Area Transport Strategy is anticipated to have a positive impact on equality within the area.</p> <p>The strategy aims to improve active travel which will have health benefits, such as reducing obesity and cardiovascular diseases, while also increasing access to services, education and jobs. Active travel will enable those who don't have access to a car to still be able to utilise the transport network. In addition, the improvement of rail and shared transport access will have similar benefits on increasing access to services to disadvantaged receptors.</p> <p>The strategy aims to improve congestion levels which should improve air and noise quality within the area which will improve health inequalities.</p>
Area Transport Strategy for Mid-Sussex	+	<p>The Area Transport Strategy for Mid-Sussex is anticipated to have a positive impact on the area.</p> <p>The strategy aims to reduce congestion levels, which will have a positive impact on health inequalities as it should reduce levels of traffic associated air and noise pollution.</p> <p>Active travel encourages reduced reliance on cars and also reduces levels of severance, isolation, whilst also increasing access to services, jobs and education. Active travel will enable those who don't have access to a car to still be able to utilise the transport network. In addition, the improvement of rail and shared transport access will have similar benefits on increasing access to services to disadvantaged receptors.</p>

WSTP Strategies	EQIA Impact	Summary
South Downs National Park Area Transport Strategy	+	<p>The South Downs National Park Area Transport Strategy is anticipated to have a positive impact on equality in the area.</p> <p>The strategy aims to alleviate severance through NMU, active travel and public transport improvements. This will enable people to maximise their use of the transport network without being affected by severance or unreliability of transport methods. An improvement to public and shared services will enable those who do not have access to a private car, for example the elderly and people with disabilities, to utilise the transport network.</p>
Worthing Area Transport Strategy	+	<p>The Worthing Area Transport Strategy is anticipated to have a positive impact on the equality in the area.</p> <p>The strategy aims to improve the West Coastway rail service which will have a positive impact on the reliability and accessibility of the service, while bus interchange and potential sustainable transport corridor improvements are proposed within Worthing. This should reduce reliance on private cars, whilst also providing a reliable mode of transport for those who do not have access to cars. The improvements will also improve access to services, jobs and education. In addition, the improvement of congestion levels should improve air and noise quality within the area which will improve health inequalities.</p> <p>The strategy also aims to promote active travel which has physical and mental wellbeing benefits, such as reduced obesity and cardiovascular diseases. Active travel is also generally more accessible than private travel, particularly for low-income households, the elderly and those with disabilities.</p>

9.5 EqlA Recommendations

9.5.1. The real value of completing an EqlA lies in the benefits to policies and procedures which will emerge from the assessment. EqlA's should result in resources and services being targeted and utilised to best serve customers and support the council's priorities. The EqlA should:

- Attribute actions to key people who will be ultimately responsible for its completion, thus creating accountability;
- Set ambitious yet achievable timescales and progress milestones;
- Be clear about resource implications; and

- Make sure that links are made to local services, team plans, and other appropriate corporate documents.

9.5.2. Actions should be identified that will actively remove or alleviate the potential for the activity to discriminate or have less favourable impacts on one or more communities. They should focus on main activities likely to have the greatest impact on communities.

9.5.3. Actions should contain reference to any mitigation, monitoring or research that was identified during the information gathering process. They should also include references to information that is still required or was not retrievable during the initial point of assessment. This will be needed in subsequent reviews or in order to complete actions.

9.5.4. It is recommended that WSCC reconsider the LTP from the context of this technical note. Potential issues are identified mostly with interventions focused on road network upgrades which would require appropriate mitigation to prevent negative effects. A consideration and commitment to this should be included in the LTP.

9.6 EqlA Implications for the WSTP

9.6.1. Actions arising from undertaking EqlA should be incorporated into relevant service and team plans, thus enabling monitoring to take place as part of an established timescale.

Table 9-2 – EqlA Implications for the WSTP

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Duty to consult children	Local Authorities have a statutory duty to consult with young people in transport planning, particularly in relation to home to school travel.	Key decisions on individual schemes or initiatives will require completion of an Equality Impact Report that considers the impact on groups with protected characteristics including young people.

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Business concerns	<p>Transport is strongly linked to business and economic prosperity. Areas which have reduced transport opportunities, such as the Coastal West Sussex area, have been found to underperform economically in comparison to well connected areas (e.g. the Gatwick Diamond areas).</p> <p>Poor transport infrastructure can be a contributing factor to business deciding to situate outside of rural areas, thus exacerbating the rural and urban economic disparity in West Sussex.</p> <p>Furthermore, poor transport can create a barrier to people being able to access work.</p>	<p>WSCC's Economy Reset Plan aims to tackle business issues by improving network efficiency rather than restricting movement.</p> <p>Reducing congestion by encouraging use of alternative modes of transport will also benefit business.</p> <p>Investing in improved transport infrastructure in rural areas will provide more economic opportunities for rural locations.</p>
Language	<p>Language can be a frequent barrier to accessing information about services and being comfortable using services, particularly for migrant groups / refugees and asylum speakers.</p> <p>Furthermore, the information available, including public transport timetables, may not be laid out in a way that is easy to understand.</p> <p>Moreover, members of staff may be unhelpful or not appropriately trained in order to be of assistance to those who require language assistance in order to use the transport network.</p>	<p>The WSCC website offers information about translating content into different languages.</p> <p>Some public transport operators also offer website language translation information.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Cultural issues	<p>Cultural differences can create barriers for communities to access transport, particularly public transport. For example, women in some communities may not feel comfortable using buses as they need to avoid coming into contact with non-familiar men.</p> <p>Research into WSCC travel patterns, also found that car travel is the dominant mode of transport which has created a culture around this mode of transport as opposed to other means.</p>	<p>The WSTP aims to support a range of modes of transport so there is something for all communities.</p> <p>Improvements to the active travel network is intended to help alter the culture surrounding dominant car use.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
<p>Fears for personal safety, fear of crime, of discrimination and/or anti-social behaviour</p>	<p>Fears associated with safety can make people reluctant to use public transport or non-motorised forms of transport throughout the County. This fear can be experienced in different severities depending on the community in question, and can be increased if an individual is part of multiple demographics which have increased risks associated with travel.</p> <p>Levels of fear and concern increase after dark and during time spent waiting to trains and buses, especially if these locations are isolated, poorly lit and/or lack security measures such as CCTV or members of staff. This can cause people to seek other modes of transport, thus reducing their accessibility to the transport network. This can also exacerbate issues of equality with transport, with some groups feeling excluded from the transport network due to safety concerns.</p> <p>Age related fears for personal safety include fear of bullying on school journeys and older people who fear lack of seats and/or rowdy behaviour and so avoid peak travel times.</p> <p>Drivers from minority ethnic and faith communities are also vulnerable to racial attack. Female drivers are also at risk of gender based discrimination and attack, particularly after dark.</p>	<p>Equality and diversity are reflected in the WSCC’s recruitment policies as an equal opportunities employer. Guidance notes for parents and pupils are issued for those receiving home to school transport.</p> <p>WSCC has worked with public transport providers to support improvements such as CCTV along the transport networks, notably at railway stations.</p> <p>Through the street lighting PFI contract, the Council improved street lighting across the County between 2010-2015. This helps to reduce the fear of crime.</p> <p>The design of any new infrastructure will need to include consideration of fear of crime issues and personal safety.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Lack of confidence to travel	<p>An unwillingness to travel can stem from fear of the unknown, as well as lack of information and knowledge of the transport system.</p> <p>For those who cannot easily access or understand information related to public transport (for example, those who do not have access to internet or who do not speak English) this can create issues surrounding confidence while travelling.</p> <p>Older people and those who are unemployed or on low incomes tend to distrust the reliability of public transport and transport costs (public or private), and lack both the knowledge of the system and the confidence to travel.</p>	<p>Travel planning encourages independence and use of sustainable modes of transport and the Council will encourage the development of travel plans, particularly through the planning system.</p> <p>Timetables are produced by bus operators.</p> <p>WSCC documents are available in hard copy upon request in addition to being available on the internet and by telephone.</p> <p>WSCC has worked with public transport operators to introduce real time information screens at well-used bus stops as well as bus information at larger rail stations, and this work is expected to continue across the county.</p>
Low satisfaction with public bus services	<p>Issues surrounding the reliability and punctuality of bus services can make people hesitant to use these services and may instead increase reliance on other modes of transport, particularly private car use. Rural areas in West Sussex have increased levels of dissatisfaction with the bus network in comparison to those in urban areas.</p>	<p>Improving key issues such as reliability, provision, appropriate street furniture etc. should improve satisfaction levels.</p> <p>Service provision improvements or amendments to better meet business needs and to provide improved access to facilities such as hospitals, post offices, shops, and education would also encourage a shift to public transport usage.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Driver / staff attitudes	<p>Evidence suggests that negative experiences with drivers / staff attitudes and / or friendliness act as a barrier against future use.</p> <p>Driver and staff attitudes can particularly be a barrier for people with disabilities who have reported that they prefer to use human in-vehicle attendance to meet their needs, therefore staff / driver attitude can have a significant impact on the willingness and capability of people with disabilities ability to use public transport.</p>	<p>The findings of any appropriate public satisfaction surveys will be used to inform discussions with bus operators.</p>
Poor information about public transport options	<p>Interpreting information about public transport can be a barrier to transport, particularly for those with disabilities or who don't speak English.</p> <p>Participants of the WSCC LTP survey made comments about improving bus stop information provision, including the provision of real-time passenger information.</p>	<p>Bus operators provide timetables for specific services.</p> <p>WSCC provides an online countywide bus network map and information and links to online bus stop and timetable information.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
<p>Cost of public transport</p>	<p>The WSCC LTP survey [For more information see: West Sussex County Council (2021). ‘West Sussex Transport Plan Review Survey, Autumn 2020 Feedback Summary, March 2021’ Accessed: 24/05/2021. [online]] found that participants had concerns surrounding the cost of public transport, with a particular emphasis on the young and how this may be a barrier to their access.</p> <p>Research has found that young people in rural areas tend to have a substantial pay disadvantage in comparison to young people in urban areas [For more information see: The Centre for Transport and Society (2018). ‘Young People’s Travel – What’s Changed and Why? Review and Analysis’. Accessed: 24/05/2021 [online]].</p> <p>The cost of public transport can be a barrier to low-income households [For more information see: Government Office for Science (2019). ‘Inequalities in Mobility and Access in the UK Transport System’. Accessed: 24/05/2021 [online]]. This can place these households at a disadvantage, particularly with access to jobs that require public transport use.</p>	<p>WSCC provides concessionary fares schemes for older and disabled people, and for young people accessing school (subject to distance, educational need or family income criteria). Public transport operators also operate various discounts, including for young people.</p> <p>Where changes in the cost of public transport services are the result of changes to Council subsidy an Equality Impact Report will consider the impact of these changes on low income groups in addition to a wide range of other minority groups.</p> <p>The Council will consider service quality including ticketing arrangements and environmental impacts alongside cost and other considerations when procuring bus services.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Public transport accessibility issues	<p>Accessibility to transport can vary between different communities. Within WSCC, availability of transport services is highly dependent on location, with rural areas having fewer options and financial viability issues.</p> <p>WSCC is projected to have a significant growth in its ageing population, which is anticipated to lead to an increasing reliance on public transport, particularly in rural areas. Studies have found that access to public transport is 'important to older people's quality of life, their sense of freedom and independence' [For more information see: Shrestha, B. P., Millionig, A., Hounsell, N. B., and McDonald, M. (2017). 'Review of Public Transport Needs of Older People in European Context'. Accessed: 24/05/2021 [online]].</p>	<p>The Council will work with public transport operators to encourage and support the provision of improved services, stops and shelters, as well as accessibility improvements to public transport vehicles and train stations.</p> <p>The Council will work with transport service operators to explore new models of service delivery and identify and deliver improvements to services, infrastructure and the customer interface that will improve network efficiency and customer experience.</p> <p>If opportunities arise, the Council will support partners to renew vehicle fleets, deliver promotional initiatives and explore new fares and ticketing arrangements.</p>
Public transport timetable issues	<p>Start and / or finish days and times means that travellers often have to pay a peak time fare even though they travel before the network is busy.</p>	<p>The Council will encourage travel plans for businesses, schools and communities which encourage home working and flexible working hours that allow people to travel outside the peak hours if they wish.</p>
Provision for carers	<p>Issues for carers centre around low incomes / higher transport costs as a result of their caring role, lack of accessible information, and a lack of awareness and provision for the need of travelling with companions.</p>	<p>Carers travelling with someone with a disabled rail card are also entitled to a discount for travel by train. WSCC also offers a Companion Pass for those holders of a disabled person's bus pass if they need someone to travel with them,</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Street design	Street design can have an impact on people’s willingness to travel, particularly late at night where perceived risks and safety issues are heightened.	<p>The design of streets should include enough space for all expected users. The needs of all road users will be considered in the design of any new infrastructure and schemes will be audited through the safety audit process.</p> <p>The Council will continue to work with public transport operators to encourage and support the provision of accessibility improvements to public transport vehicles, stops and stations.</p> <p>Crossing points should be designed to be safe regardless of the materials used.</p> <p>Appropriate lighting and security measures, where needed, will be put in place for public footways / cycleways / bridleways etc. to increase safety.</p> <p>The Council will continue to work through the ROVI team (Rehabilitation Officers for the Visually Impaired) to support the confidence of people with visual impairments using streets.</p>
Equestrian issues	Although there is an extensive footway network in WSCC, there are issues around severance particularly with regards to equestrians. The WSCC LTP survey also found issues surrounding ‘rat running’ in rural areas causing issues for equestrians using quiet lanes, raising concerns about safety. The role of equestrianism in supporting rural communities was also raised as an issue in the survey.	Opportunities identified within the WSTP include improved crossings to link up the bridleway network, potentially in combination with upgrading existing PRoW to facilitate horse-riding and the provision of parking opportunities for horse trailer boxes.

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Powered two wheelers (PTWs)	<p>The WSCC survey found that participants felt that PTW users have been generally overlooked as alternatives for people without a car, that there is limited parking provision for PTWs, and that PTWs aren't appropriately recognised as vulnerable road users raising issues around safety.</p>	<p>The Council will continue to maintain highways, which is key to ensuring roads are safe.</p> <p>The Council will seek to provide improved facilities for PTW users, particularly through the planning system.</p>
Pedestrian / cycle / car traffic accidents	<p>Car users have the highest share of fatalities on Great Britain roads [For more information see: DfT (2019). 'Transport Statistics Great Britain 2019'. Accessed: 24/05/2021 [online]]. In recent years the number of people killed or seriously injured on roads each year in West Sussex has remained fairly stable which is consistent with the national trend.</p> <p>Cycling accidents in West Sussex have also increased in recent years [For more information see: Reported road casualties, Great Britain, STATS19 dataset [online]], in line with national trends, which is partly explained by an increase in cycling over the same period [For more information see: DfT, Walking and Cycling Statistics, CW0301]. An uptake in cycling and other more vulnerable travel activities has also caused a risk in serious accidents [For more information see: WSCC (2016). 'Road Safety Framework 2016 – 2026'. Accessed: 24/05/2021 [online]]. The risks to safety may act as a barrier to people deciding to use different forms of transport within WSCC, which may exacerbate issues of severance, isolation etc.</p>	<p>The Council will continue to support 'bikeability' and school crossing patrols across the county.</p> <p>Casualties will continue to be monitored, the information from this will be used to develop schemes and initiatives which target the root causes of accidents.</p> <p>The Road Safety Framework will undergo its mid-term review in 2021 and place greater emphasis on expanding and embedding the Safe Systems approach to road safety and traffic management in all highway and transportation activities in West Sussex.</p> <p>The Council will also calculate the casualty reduction benefits of these schemes and the information to inform decisions on priorities.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
<p>Car dependency / lack of access to a car</p>	<p>Low-income households are less likely to be able to afford the costs associated with a private car. Furthermore, young people have been found to be increasingly discouraged from driving due to motoring costs., especially insurance costs. Car dependency is more prevalent in rural areas as a result of poor public transport links.</p>	<p>By encouraging the development of travel plans, the Council aims to increase independence and encourage use of alternatives to the private car.</p> <p>The Council will also promote the West Sussex lift share on the Council website.</p> <p>Where there is funding, the Council will provide concessionary fares schemes which are affordable.</p> <p>As the use of sustainable modes of transport increases across WSCC, this will reduce the need for car use and encourage other modes of transport.</p>
<p>Barriers to cycling</p>	<p>There has been an increase in cycling in WSCC; however, this has also led to an increase in accidents for cyclists. Safety concerns may be a barrier to people taking up cycling. There are only 74km of cycleway in WSCC, with issues of severance being prevalent. Busy roads and congestion issues, particularly in urban areas, may act as a deterrent to cycling uptake. Furthermore, 'rat running' and speeding traffic on rural lanes raises safety and amenity issues for cyclists.</p>	<p>Where they are prioritized and are affordable, the Council will develop physical infrastructure which will overcome the barriers to cycling.</p> <p>The Council's active travel strategy aims to address the needs of pedestrians, as well as persons of reduced mobility and micro-mobility, which are emerging and may become more prominent during the life of the Plan.</p> <p>At new residential and commercial developments the Council will require that sufficient, convenient, secure cycle parking is provided to meet expected levels of cycle ownership.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Barriers to walking	<p>WSCC has an extensive footway network, however there are issues of severance associated with this. Some communities may feel unsafe walking, for example women who may prefer other forms of transport (such as a private car) especially after dark.</p> <p>Participants of the WSCC survey found that pedestrian facilities in rural areas, particularly in villages, is inadequate. Furthermore, 'rat running' and speeding traffic on rural lanes raises safety and amenity issues for pedestrian users.</p> <p>Particular barriers to walking experienced by older people include heavy and fast traffic, poor road and crossing facilities, a lack of pavements or pavements in poor condition (uneven surfaces), obstacles on pavements and an increased risk of accidents.</p>	<p>The Council's active travel strategy aims to address the needs of pedestrians, as well as persons of reduced mobility and micro-mobility, which are emerging and may become more prominent during the life of the Plan.</p> <p>The WSTP aims to extend and improve the network of NMU facilities, taking account of potential usage and stakeholder support, so it is coherent and high quality enough to make active travel an attractive option for short distance trips.</p>
Rail use	<p>Station conditions can be a barrier to use, for example if there are stairs, crowds, heavy doors, inaccessible toilets etc. this can make stations inaccessible or intimidating to users.</p> <p>The cost of rail transport is also another barrier to this form of transport. Low-income households are less likely to use high-speed rail and are more likely to use the roads.</p>	<p>The development of travel plans will encourage uptake in rail use.</p> <p>The Council's rail strategy is intended to set out their strategy for the railway but as WSCC does not operate railways and they also impact areas outside the County, delivery of the strategy will depend on partnership working.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
Community transport	Community transport initiatives are often considered a viable option for older people or those with disabilities but can also have barriers, such as demand outstripping the supply of Dial-a-ride trips, the need for pre-booking which denies the opportunity to make spontaneous trips, and concern about the ability to book/make return trips.	The Council is expected to consider the future role of community transport in accessibility solutions, particularly in rural areas. There may be room for the Council to work collaboratively on emerging concepts, such as Dynamic Demand Responsive Transport services, digital platforms and mobility hubs, with neighbouring authorities where services operate across boundaries or they have shared objectives.

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
<p>Poor access to rural areas</p>	<p>Within WSCC, rural areas generally have less public transport provision or accessibility as well as poorer pedestrian / NMU provisions. As such, there is a heavier reliance on private car ownership; however, rural areas also tend to have lower incomes in WSCC which creates issues surrounding the costs of private cars. For those without a car in rural areas, accessing employment, shopping, health facilities, educational and leisure facilities is difficult.</p>	<p>Home to school transport will be provided in line with the Council's statutory duties and the home to school transport policy.</p> <p>Although there are increasing pressures on public subsidies, the Council will work in partnership with the bus industry to provide a network that will benefit as many people as possible but which provides good value for money. The Council will provide concessionary fares schemes where they are affordable and funded. When reviewing the bus network, the Council will consider access to services as part of the review.</p> <p>By encouraging the development of travel plans, the Council aims to make people aware of other modes of transport available.</p> <p>Where they are prioritized and are affordable the Council will develop new physical infrastructure making use of public rights of way to improve access in rural areas.</p> <p>An objective of the WSTP for a healthy West Sussex is ensuring rural communities can live locally by accessing nearby towns, while an action is identified to develop an on demand flexible shared transport services digital platform which will also assist rural and hard to reach areas.</p>

Problem Area	Evidence / Main Issue	Mitigations for the WSTP
<p>Reduction in commercially operated bus services, particularly in rural areas</p>	<p>The public transport bus network in WSCC is overwhelmingly commercially run, but some services in rural areas are not commercially viable and only operate due to financial support. If bus services are not commercially viable when funding ends, this can result in services being lost or reduced.</p>	<p>The Council will work in partnership with the bus industry to provide a public bus network with less public subsidy.</p> <p>When reviewing the bus network, the Council will consider access needs and consult on any significant changes to the network.</p> <p>The Council will support, coordinate and make the best use of community transport services which will help to fill any gaps left by the conventional public bus network.</p>
<p>Lack of transit sites</p>	<p>Authorised traveller sites are generally located on the outskirts of towns or in remote rural areas leading to further exclusion through difficulties accessing shops, schools and other services, a lack of facilitative school transport and either non-existent or poor public transport.</p> <p>Unauthorised / roadside encampments fail to provide adequate standards for Gypsies / Travellers, perpetuate their social exclusion, and lead to friction within the settled community.</p>	<p>Home to school transport will be provided in line with the Council's statutory duties and the home to school transport policy.</p> <p>Where there are gaps in public transport service provision, the Council will work with community transport providers to identify solutions to fill them.</p> <p>The Council will make bus operators aware of the presence of permanent traveller sites as these are not often shown on conventional maps.</p> <p>The Council will support the District and Borough Councils in their duty to create transit sites.</p>

Appendix A

SEA REGULATIONS REQUIREMENTS

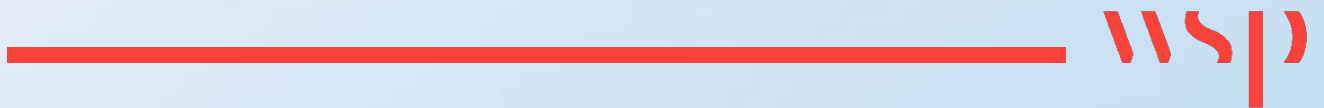


Table A-1 – SEA Regulations Requirements

Requirement	Description
Preparing an Environmental Report	<p>In which the likely significant effects on the environment of implementing the plan, and reasonable alternatives taking into account the objectives and geographical scope of the plan, are identified, described and evaluated. The information to be given is (Article 5 and Annex I):</p> <ul style="list-style-type: none"> ▪ An outline of the contents, main objectives of the plan, and relationship with other relevant plans and programmes; ▪ The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan; ▪ The environmental characteristics of areas likely to be significantly affected; ▪ Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC; ▪ The environmental protection objectives, established at international, Community or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation; ▪ 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 the above factors. (These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects); ▪ The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan; ▪ 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; ▪ a description of measures envisaged concerning monitoring in accordance with Article 10; and ▪ a non-technical summary of the information provided under the above headings. <p>The report must include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Article 5.2).</p>
Consultation	<p>Authorities with environmental responsibilities, when deciding on the scope and level of detail of the information which must be included in the Environmental Report (Article 5.4)</p> <p>Authorities with environmental responsibilities and the public, to give them an early and effective opportunity within appropriate time frames to express their opinion on the draft plan and the accompanying Environmental Report before the adoption of the plan (Article 6.1, 6.2)</p> <p>Other EU Member States, where the implementation of the plan is likely to have significant effects on the environment in these countries (Article 7).</p>
Providing Information on the Decision (Article 8)	<p>When the plan is adopted, the public and any countries consulted under Article 7 must be informed and the following made available to those so informed:</p> <ul style="list-style-type: none"> ▪ The plan as adopted; ▪ A statement summarising how environmental considerations have been integrated into the plan and how the Environmental Report of Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Article 7 have been taken into account in accordance with Article 8, and the reasons for choosing the plan as adopted, in the light of the other reasonable alternatives dealt with; and <p>The measures decided concerning monitoring (Article 9).</p>
Monitoring (Article 8)	<p>The significant environmental effects of the plan's implementation (Article 10).</p>

Appendix B

SA STAGES AND TASKS

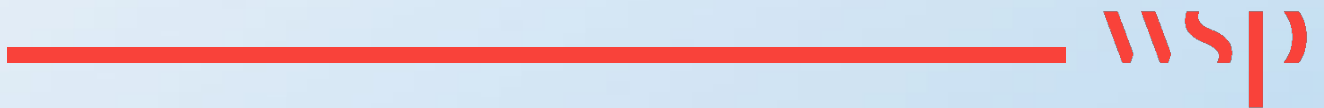


Table B-1 – Sustainability Appraisal Stages and Tasks

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope

Stage	Tasks
A1: Identifying other relevant plans, programmes, and sustainability objectives	To document how the plan is affected by outside factors and suggest ideas for how any constraints can be addressed.
A2: Collecting baseline information	To provide an evidence base for sustainability issues, effects prediction and monitoring.
A3: Identifying sustainability issues	To help focus the SA and streamline the subsequent stages, including baseline information analysis, setting of the SA Framework, prediction of effects and monitoring.
A4: Developing the SA Framework	To provide a means by which the sustainability of the plan can be appraised.
A5: Consulting on the scope of the SA	To consult with statutory bodies with social, environmental, or economic responsibilities to ensure the appraisal covers the key sustainability issues.

Stage B: Developing and refining options and assessing effects

Stage	Tasks
B1: Testing the plan objectives against the SA Framework	To ensure that the overall objectives of the plan are in accordance with sustainability principles and provide a suitable framework for developing options.
B2: Developing the LTP options	To assist in the development and refinement of the options, by identifying potential sustainability effects of options for achieving the plan objectives.
B3: Predicting the effects of the LTP	To predict the social, environmental and economic effects of the options being considered in the LTP process.
B4: Evaluating the effects of the LTP	To evaluate the significance of the likely effects of the LTP.
B5: Considering ways of mitigating adverse effects and maximising beneficial effects	To ensure that there are significant measures to prevent, reduce or offset any significant adverse effects of implementing the LTP.

Stage	Tasks
B6: Proposing measures to monitor the significant effects of implementing the LTP.	To ensure that the effects of implementing the LTP are tested against those predicted in the SA.

Stage C: Preparing the Sustainability Appraisal Report

Stage	Tasks
C1: Preparing the Sustainability Appraisal Report	To provide a detailed account of the SA process, including the findings of the appraisal and how it influenced the development of the plan, in a format suitable for public consultation and decision-makers.
C2: Assessing the effects of the LTP	To assess the significance of the predicted effects of the plan and plan options and assist in the refinement of the plan.
C3: Mitigating adverse effects and maximising beneficial effects	To ensure all potential mitigation measures and measures for maximising beneficial effects are considered and as a result residual effects identified.
C4: Developing proposals for monitoring	To detail the means by which the sustainability performance of the plan can be assessed.
C5: Preparing the SA Report	To provide a detailed account of the SA process, including the findings of the appraisal and how it influenced the development of the plan, in a format suitable for public consultation and decision-makers.

Stage D: Consulting on the preferred options of the LTP and the (Draft) Sustainability Appraisal Report

Stage	Tasks
D1: Public participation on the preferred options of the LTP and the Sustainability Appraisal Report	To provide the public and statutory bodies with an effective opportunity to express their opinions on the SA Report and to use it as a reference point in commenting on the plan.
D2(I): Appraising significant changes	To ensure that any significant changes to the plan are assessed for their sustainability implications and influence the revision of the plan.

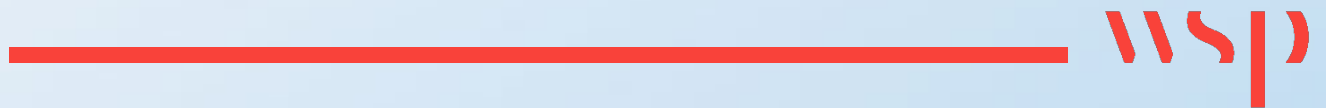
Stage	Tasks
D2(ii): Appraising significant changes resulting from representations	To appraise the soundness of the LTP using the SA and updating the SA as necessary.
D3: Decision-making and providing information	To provide information on how the SA Report and consultees' opinions were taken into account in preparing the plan.

Stage E: Monitoring the significant effects of implementing the LTP

Stage	Tasks
E1: Finalising aims and methods for monitoring	To finalise suitable methods for monitoring the performance and effects of the LTP and informing future decision making.
E2: Responding to adverse effects	To ensure that the adverse effects can be identified, and appropriate responses developed.

Appendix C

SA SCOPING REPORT

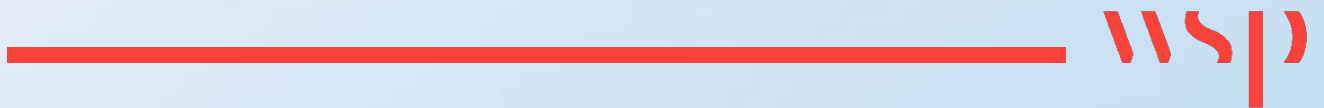




See separate document: Sustainability Appraisal Scoping Report.

Appendix D

SA 2017 SCOPING CONSULTEE LOG



**WEST SUSSEX LOCAL TRANSPORT PLAN SUSTAINABILITY APPRAISAL SCOPING
RESPONSE**

FEEDBACK COMBINED

Crawley Borough Council

Paragraph	Crawley Borough Council Feedback	Comment response
2.1.2 (Background)	The Freight Movement and Management bullet point does not appear to acknowledge the role of rail in freight movements. The WSCC Minerals Plan requires Local Planning Authorities to safeguard railheads that are associated with the movement of minerals and aggregates, and whilst this is covered under 3.2.8, it would also be worth this section referring to the role of rail based freight transport. The first map in Appendix A could show the railheads.	Railheads have been added to the Figure A-1 in Appendix A. Additional text has also been added to 2.1.2 to make note of rail contribution to freight transport. The text now reads as follows: Freight Movement and Management - Throughout the County the main movement of freight is through road haulage. Freight is also moved via rail; West Sussex has five railheads with a total capacity of 1,380,000 tonnes. There are some additional freight movements via sea and air into and across the county, which can help to reduce the levels of road traffic. The efficient and safe movement of freight is vital to the success and growth of the West Sussex economy.
Table 3.2, page 13 (Waste arisings in West Sussex)	It is not clear what the abbreviations under the 'Waste Type' column mean. There appears to be a reference on the table but the accompanying footnote does not seem to appear in the document.	Removed abbreviations and added in full title.

Paragraph	Crawley Borough Council Feedback	Comment response
3.5.2 (air quality)	CBC welcomes the identification of the Crawley Avenue AQMA in the LTP SA document, and confirm that the summary of this AQMA (provided at 3.5.2) reflects our current information. Can/should the document include more specific reference to the Ashdown Forest/Habitats Regulations Assessment issue regarding the cumulative impact of the nitrogen deposits due to vehicular transport?	Additional text has been included in the air quality section which discusses the current situation with nitrogen deposition (refer to 3.5.5), with specific reference to the Ashdown Forest.
Fig 3.1 (page 18)	Diagram isn't legible.	Increased the size of the figure to make it legible.
3.7.1 (noise)	Appreciate that the Local Transport Plan is focussing on noise from road based transport sources, but it would be helpful for context to add a paragraph that acknowledges the airports in West Sussex, such as Gatwick and Shoreham, which are also a source of transport noise. Again, appreciate that the LTP would not necessarily consider noise from air transport, but it would be useful to acknowledge that noise from roads is not the only source of transport related noise in West Sussex.	3.7.3 added in additional sentence to acknowledge that airports are also a source of noise.

Paragraph	Crawley Borough Council Feedback	Comment response
3.8 (Landscape and Townscape)	This section does not appear to acknowledge the positive role of transport infrastructure in providing access to valued landscape and townscape, which is briefly acknowledged in the second bullet of para. 2.1.2. Such infrastructure can have adverse impacts on these environmental assets as identified (e.g. in the case of Highways infrastructure), but other infrastructure (footpath and cycling route networks) can facilitate access with negligible adverse impact, while linking up with the goals identified in sections 3.5 (Air quality), 3.6 (Climate) and 3.12 (Health). Thus there is potential for transport infrastructure developments and improvements to have a positive impact on the benefits arising in this area.	Added in some text to the future trends section to reflect the positive impact future transport infrastructure could have on landscape. Text amended to read as follows: 3.8.6 Landscape character quality may be affected both positively and adversely by new transport infrastructure and residential developments, and the development of unoccupied sites resulting from population pressure. Adverse impacts may arise for assets identified above (refer to paragraph 3.8.3) in terms of visual amenity. However, future transport infrastructure may improve accessibility to valued landscape and townscape areas; other infrastructure (e.g.) footpath and cycling route networks) may facilitate access with little adverse impact, while linking up with goals identified in 3.5 Air Quality, 3.6 Climate and 3.12 Health. 3.8.7 It is critical that due consideration is given to areas of landscape importance to prevent adverse visual impacts arising
3.10.10 (water)	The third bullet point considers the role of run-off from roads and pavements in terms of potentially spreading pollutants. Is there also a need to consider the impact of run-off from new roads and pavements in terms of increasing flood risk through the loss of permeable surfaces? There is also potentially a need to consider this within the context of placing increased pressure on the drainage network.	3.10.10 added in new sustainability issue to reflect this. Added in: Increase in flood risk can occur through the loss of permeable surfaces due to new road construction;

Paragraph	Crawley Borough Council Feedback	Comment response
Table 3.3 (page 23) and 3.11.4	<p>Not sure para 3.11.4 is correct. Whilst Chichester, Horsham and Mid Sussex have a similar amount of population aged 55+, when this is looked at as a proportion of overall population, the areas are different.</p> <p>As a proportion of population, Arun and Chichester are similar (40% of population aged 55+, rising to approx. 47/48%), and there is similarity between Adur, Horsham and Worthing (currently approx. 35% of population aged 55+, rising to 42/43%).</p>	<p>Text amended and updated in 3.11.4. It now reads:</p> <p>West Sussex has an older population than the national average, with 40.5% of the population aged over 64 compared to the national average of 36.7%²⁶. Based on 2016 data, Arun and Chichester have the greatest proportion of those aged 55+, with proportions of 41.1% and 40.3% respectively.</p>
3.11.8 (Future Trends)	<p>Whilst the population of Crawley is forecast to increase, as a result of Crawley's tightly constrained administrative boundary and limited available land supply, Crawley will not be able to meeting its Objectively Assessed Housing Need within the borough boundary. It is possible that some identified need may be met through urban extensions to Crawley, but the lack of available land supply in Crawley may influence the identified trend.</p>	Noted, no update required.
3.13.1 & 3.13.3 (GVA)	<p>These paragraph refer to the performance of the region in comparison to other regions, but it would be useful if figures could be provided (similar to 3.4) to illustrate performance more clearly.</p>	Graphs have been added to compliment the text.

Paragraph	Crawley Borough Council Feedback	Comment response
3.13.5 (GVA)	Understand the point that is being made here, but it does read a little negatively, as it seems to suggest that West Sussex South East performs more weakly as a result of Crawley and Gatwick Airport. Could this be re-worded to read more positively, in that West Sussex North East is performing strongly, particularly as a result of Crawley and Gatwick Airport.	3.13.5 re-worded to read more positively. Replaced with: The per head figure of GVA (Figure 3.4) shows West Sussex North East's performance is stronger than West Sussex South West's performance. This is probably due to the effect of Crawley and Gatwick airport on the economy in the north of the County.
3.13.12 (Sustainability Issues)	The Coast to Capital LEP Strategic Economic Plan (2014) identifies poor east-west transport connectivity as a transport related barrier to growth, both in relation to rail and the strategic road network. It may be worth adding this to the list of economy related sustainability issues identified at 3.13.12.	Added as a sustainability issue to 3.13.12
3.14.2-3.14.4 (Connectivity, Accessibility and Crime and Disorder)	Are these West Sussex-wide average figures? Could data be provided on a district/borough basis, as there is likely to be a significant variance between different areas. For example, public transport in Crawley is particularly well used, particularly the bus routes and Fastway service. These characteristics are likely to be very different to more rural areas where there is likely a greater reliance on private car.	Unfortunately WSCC cannot provide us with district specific data so not able to report on this scale.
5.1.1 (Next Steps)	Will there be a further opportunity for the Districts and Boroughs to comment on the next stage of this document?	Further opportunities for input as part of Stage B, C & D.

SDNPA

Section	Comment	Comment Response
3.5 Air Quality	<p>Greater emphasis could be placed on the impact of air quality on the natural environment, in particular nitrogen deposition. Habitats Regulations Assessment prepared by Local Authorities in support of Local Plans are increasingly considering this issue and vehicle emissions are a key contributor. The South Downs Local Plan Habitat Regulations Assessment has been published on the SDNPA website alongside the Local Plan.</p>	<p>Text included in the air quality section which discusses the current situation with nitrogen deposition (refer to 3.5.5), with specific reference to the Ashdown Forest.</p>

Section	Comment	Comment Response
3.7 Noise	<p>We suggest that this section should go further on the matter of tranquillity and include some text about what tranquillity is and ideally show a map of tranquil areas in West Sussex (see reference below). The suggested text could be:</p> <p>'West Sussex has 3 areas of nationally protected landscapes where tranquillity is a key feature to protect. Tranquillity is a perceptual quality of the landscape and is based on both positive and negative factors - hearing and seeing things and also not hearing and not seeing things. Positive factors are generally natural features like deciduous woodland, birdsong, running water, and negative features would be roads, traffic, buildings, machinery, power lines etc. The absence of overt human activity is often a key factor in experiencing tranquillity.'</p> <p>The South Downs Tranquillity Study 2017 could provide further information in relation to the South Downs. In addition the CPRE provide tranquillity data for WSCC. Finally, the sustainability objective (Table 4.1) relating to noise could be improved by also adding reference to tranquillity.</p>	<p>Text has been updated to include the suggested paragraph.</p> <p>The CPRE map has also been inserted into the baseline section and an additional paragraph added (3.7.5) to provide some commentary alongside this map.</p> <p>The text now reads as follows:</p> <p>3.7.4 West Sussex has three areas of nationally protected landscapes where tranquillity is a key feature to protect. Tranquillity is a perceptual quality of the landscape and is based on both positive and negative factors - hearing and seeing things and also not hearing and not seeing things. Positive factors are generally natural features like deciduous woodland, birdsong, running water, and negative features would be roads, traffic, buildings, machinery, power lines etc. The absence of overt human activity is often a key factor in experiencing tranquillity.</p> <p>3.7.5 According to Campaign to Protect Rural England (CPRE), the least tranquil areas of West Sussex (Figure 3.2) are concentrated to the north-east of the county and south coast. This aligns with the major urban areas of Crawley and Horsham in the north, and the areas of Brighton, Worthing and Eastbourne along the south coast.</p> <p>Sustainability objective updated to take note of tranquil areas.</p>

Section	Comment	Comment Response
<p>3.8 Landscape and Townscape</p>	<p>Further text could be included to set out the context of the landscape within West Sussex. For example 3.8.3 sets out that more than half the County is within a protected landscape, but no further information is given about what that means in relation to the LTP - for example tourist hotspots, where the combined and conflicting desire to enable people to access areas may erode the remote and wild qualities for which the landscapes are treasured. Increased use of private car also leads to erosion of the Nationally protected landscape.</p> <p>In terms of setting out what could affect landscape quality we suggest adding some examples e.g. signage, street lighting affecting Dark night skies, urbanisation of rural roads</p> <p>It may also be worth recognising that in many areas traffic congestion, noise, air pollution and transport infrastructure are already adversely affecting local character and distinctiveness. The sustainability objective (Table 4.1) or preceding text relating to landscape and townscape may be strengthened by referring to section 62 of the Environment Act 1995 which requires all relevant authorities, including statutory undertakers and other public bodies, to have regard to the purpose of the National Park.</p>	<p>The baseline section outlines the current situation, I am hesitant to start adding in discussion text regarding access / eroding features. This is more of an issue which is already covered in the sustainability objectives. The baseline section is merely outlining what the landscape is like now and the characteristics of it.</p> <p>I have added in some text to give due regard to what could affect landscape quality (see 3.8.5). I have also added in some text which makes reference to the importance of the settlement pattern in defining the landscape character of the region.</p> <p>The text now reads as follows:</p> <p>3.8.3 More than half of the county is within nationally protected landscapes, including: South Downs National Park (SDNP), Chichester Harbour Area of Outstanding Natural Beauty (AONB) and the High Weald AONB. These protected areas attract numerous visitors to the county.</p> <p>3.8.4 West Sussex is the second most wooded county in England and has a varied wooded landscape. This includes: Deep Ghyll woodlands of High Weald; Remnant woodland belts between fields in the Low Weald; Downland plantations and woods; and Newer woods developed over the Greensand Hills.</p> <p>3.8.5 The settlement pattern of the county is a strong defining characteristic, with it being a network of small to medium sized towns, villages and hamlets. This pattern only varies around Crawley, Haywards Heath and along the coast.</p> <p>The Environment Act 1995 reference to section 62 has been added to the legislative and policy context appendix.</p>

Section	Comment	Comment Response
3.12 Health	Sustainability issues 1 refers to access to healthcare, but should include social care and facilities as this is a key factor in mental health.	Amended text to include social care facilities. Text now reads as follows: 3.12.7 Sustainability issues in relation to Health are as follows <input type="checkbox"/> The population of West Sussex is an ageing population; older generations may not have access to appropriate forms of private transport to access healthcare and social care facilities;
Various sections	Suggest a cross reference to Green infrastructure measures is made, particularly in the sections on climate and on water - this would be consistent with the NPPF and would demonstrate a more joined up approach to GI thinking.	Cross references made between GI, Water and Climate. Also cross referenced between Climate and Water specifically.

<p>General comment</p>	<p>We consider that walking is not sufficiently addressed in this paper. We would expect the LTP to be looking at facilitating greater opportunities for walking as a means of travel in order to tackle some of the issues eg air pollution/noise</p> <p>Rather than highlighting cycling specifically, the term non-motorised user (NMU) is current and covers more than just cyclists. We would like to see mention on NMU networks.</p> <p>Delivering for non-motorised users or Active Travel is an important sustainability factor which should feature in Health but also in Accessibility/connectivity sections. Continued traffic growth without adequate provision for Active Travel/non-car modes is clearly not sustainable.</p>	<p>Walking: Added in references to NMUs across the document and cross referenced between a new PRow section (within section 3.14) and noise / air quality. Additional text that has been added (3.14.9) reads as follows:</p> <p>3.14.9 There are over 4,000km (2,500 miles) of PRow in West Sussex, which include footpaths, bridleways, restricted byways and Byways Open to All Traffic (BOATs). The network provides sustainable options for travelling to school, to work and to local services. It also contributes to people being able to lead a healthy lifestyle via the provision of areas suitable for NMUs to undertake activities such as walking, cycling and horse riding.</p> <p>Future trends (3.14.12) in section 3.14 has also been updated and reads as follows:</p> <p>3.14.12 Population growth can exacerbate access issues, although this can be counteracted by development planning, including transport. Delivering for NMU users, particularly with respect to active travel is important; continued traffic growth without adequate provision for NMUs is unsustainable. This may also assist in tackling other issues relating to air quality (section 3.5) and noise (section 3.7).</p>
<p>Additional references that may be useful</p>	<p>'Roads in the South Downs' - publication by SDNPA.</p> <p>South Downs Integrated Character Assessment.</p> <p>The Legislative and Policy context is missing reference to the governments Cycling and Walking Investment Strategy published earlier this year</p>	<p>Added in the Cycling and Walking Investment Strategy to the legislative context appendix.</p>

Sussex Air

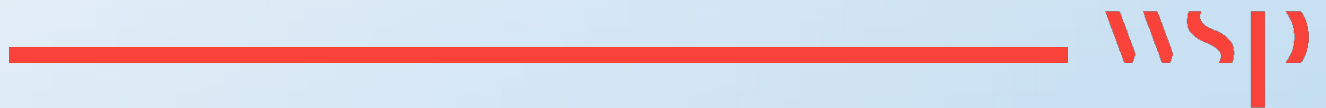
Section	Comment	Comment Response
General	The document covers many subject areas but lacks detail on air quality, is this because it is a scoping document?	Yes this is a scoping document so there will not be in depth discussion, this will occur in the SA.
Air quality	No mention of hackney carriages / taxis or private hire vehicles – taxi operators can licence in one area and operate in another	The last LTP did not specifically consider taxis as a mode of transport in West Sussex.
Air Quality	Useful to see how mineral extraction sites juxtapose with AQMAs – rigid HGVs used at these sites are likely to have high NOx emissions	Noted presently no clear link is observed between active mineral extraction sites and AQMAs observed in Figure A-1.
Air Quality	The document states that there are exceedances of NOx, NO ₂ and PM10, is this compared with the UK AQ strategy, the habitats directive or both.	Compared with the Air Quality Strategy for England. Have added this to the text (3.5.2) to make clear what it is in reference to. Also added in some additional legislation to appendix which was issued after the scoping report went out for consultation. Legislation added is: Air Quality Plan for Nitrogen Dioxide in the UK (2017).

Worthing Council

Section	Comment	Comment Response
Air Quality	We are pleased to see that the AQMAs in Adur District and Worthing Borough have been recognised. However please note that the 'Worthing Borough Council Air Quality Management Area No. 2' extends significantly beyond the Grove Lodge roundabout and encompasses Offington Corner roundabout to the west and Lyons Farm to the east.	Text has been amended to reflect the size of the AQMA.

Appendix E

SA 2021 NATURAL ENGLAND CONSULTATION COMMENTS





See separate document.



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