Warwickshire County Council

LOCAL TRANSPORT PLAN 4

Integrated Sustainability Appraisal Report

SEPTEMBER 2022

PUBLIC

Warwickshire County Council

LOCAL TRANSPORT PLAN 4

Integrated Sustainability Appraisal Report

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 70085518

DATE: SEPTEMBER 2022

WSP

Level 2
100 Wharfside Street
Birmingham
B1 1RT

Phone: +44 121 352 4700

WSP.com

QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	For client review	Final for Consultation		
Date	July 2022	September 2022		
Prepared by	Charlotte Town	Charlotte Town		
Signature				
Checked by	Jerome Kreule	Katie Dean		
Signature				
Authorised by	Nic Macmillan	Nic Macmillan		
Signature				
Project number	70085518	70085518		
Report number	v1.3	V1.4		

CONTENTS

TABLES

FIGURES

APPENDICES

NON-TECHNICAL SUMMARY

INTRODUCTION

Warwickshire County Council (WCC) has commissioned WSP to undertake an Integrated Sustainability Appraisal (ISA) that incorporates the requirement of a Strategic Environmental Assessment (SEA) of the Warwickshire Local Transport Plan 4 (LTP4).

The ISA includes the assessment of WCC's LTP4 which covers Warwickshire's administrative boundary, incorporating the five local authority districts of North Warwickshire, Nuneaton and Bedworth, Rugby, Warwick and Stratford-on-Avon.

The ISA is a systematic process that is undertaken during the preparation of a plan. Its role is to promote sustainable development by assessing environmental, social and economic impacts, as well as mitigating any potential adverse effects that the plan might otherwise have.

THE LTP

Since the existing Local Transport Plan (LTP3) was produced, there have been changes to the transport network in Warwickshire through the development of multiple transport schemes. LTP4 is therefore being developed to alter the way transport planning is carried out in the county. The focus of LTP4 is to create safer communities and streets, integrate modes and focus on connectivity, mobility and movement in the county, as well as encouraging a modal shift away from private car use.

There are seven strategic themes that underpin the vision:

- Core Strategy;
- Active Travel Strategy;
- Public Transport Strategy;
- Motor Vehicles Strategy;
- Managing Space Strategy;
- Safer Travel Strategy; and
- Freight Strategy.

There are 34 policies under these strategies, which form the basis of the ISA assessment.

WHAT IS ISA?

ISA 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 predicted at this stage will remain at a strategic level.

METHOD AND APPROACH TO THE ASSESSMENT

The key stages of the ISA process are the following:

- Stage A: Setting the context and objectives, establishing the baseline and deciding on scope;
- Stage B: Developing and refining strategic alternatives and assessing their effects;
- Stage C: Preparing the SEA Environmental Report;
- Stage D: Consultation on the draft revised LTP and the draft SEA; and
- Stage E: Monitoring the significant effects of implementing the revised LTP.

The process of ISA involves the development of an assessment framework, compiled of sustainability objectives, assessment criteria and indicators. This framework is developed through a review of existing baseline information, plans and area objectives to develop an understanding of environmental issues and opportunities in the county.

ISA OBJECTIVES

Following the findings identified through scoping, an ISA Framework has been produced, which was used to guide the assessment process of the plans and strategies. The framework summarises the main sustainability issues in Warwickshire across each environmental topic, and the subsequent sustainability objectives. There are 16 sustainability objectives relating to the ISA for each environmental topic – these objectives are outlined below.

Table NTS 1: ISA Objectives and topics.

ISA Topic	ISA Objective
Population and Equalities	ISA1: To increase the capacity, connectivity and efficiency of the transport network to support demographic changes, including improving access for all groups inclusively and reduce inequalities across the plan area.
Economy and Employment	ISA2: To provide greater connectivity across Warwickshire to support greater access to employment, development in key sectors, attract inward investment and support economic growth.
Human Health	ISA3: To protect and enhance both physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.
Community Safety	ISA4: To promote safe transport through reducing accidents, improving safety and reducing crime across the transport network.
Biodiversity, Natural Capital and Ecosystem Services	ISA5: To protect and enhance protected habitats, species and valuable ecological networks that contribute to ecosystem functionality in Warwickshire, contributing to biodiversity net gain. ISA6: To maintain and enhance the provision of ecosystem services from the county's natural capital and contribute to biodiversity net gain. ISA7: To maintain and enhance existing green networks and improve habitat connectivity.

Landscape and Townscape	ISA8: To protect and enhance Warwickshire's townscapes and landscapes, including both the rural environment and town centres.
Historic Environment	ISA9: To conserve and enhance the historic environment, including heritage assets (designated and non-designated) and their unique settings.
Water Environment	ISA10: To protect water quality and manage and reduce the risk of pollution from the transport network. ISA11: To reduce the risk and vulnerability to flooding.
Air Quality	ISA12: To protect and enhance air quality by reducing transport related emissions.
Climate Change and Greenhouse Gases	ISA13: To reduce greenhouse gas emissions, support national and local decarbonisation initiatives and incorporate climate change adaptation to help maximise resilience.
Soil, Land Use, Resource and Waste	ISA14: To ensure the efficient use of land, promote sustainable use of resources and seek opportunities to promote a circular economy. ISA15: To protect Warwickshire's geological and agriculturally important land.
Noise and Vibration	ISA16: To reduce exposure to transport related noise and vibration, including noise pollution and nuisance.

KEY FINDINGS FROM THE ASSESSMENT

ASSESSMENT OF STRATEGIES AND POLICIES

In general, LTP4 strategies and policies performed well against most ISA objectives, with no significant negative effects being identified. All policies have resulted in positive or negligible effects on social and economic objectives (population and equalities, economy, health and community safety). Some uncertain effects were identified for biodiversity, natural capital and ecosystem services, water, land use and soils, noise, and flood risk.

However, negative effects will arise with the implementation of some policies associated with the Motor Vehicle and Freight Strategies in particular. As well as this, large amounts of mixed positive and negative effects are anticipated, illustrating the fact that the construction phase for the implementation of many LTP4 policies will result in negative effects, despite a positive operational effect being realised.

A summary of the effects on each ISA Objective has been provided in the table below:

Table NTS 2: ISA Summary of Effects

ISA Objective	Summary of Effects
ISA1: Equality and Inclusion	Policies and strategies have either resulted in mostly minor positive or effects on ISA1. The majority of policies will help to provide a more reliable and accessible transport network which will enable greater connectivity to jobs, services, healthcare, education and recreation. Policies aims to create an inclusive network for all users. LTP4 acknowledges the future demographic changes in the county (particularly with regards to an ageing population) and notes the challenges faced by those with disabilities and their dependence upon the public transport network. LTP4 also focuses on improving rural connectivity within the public transport network and aims to help rebuild confidence in public transport network, particularly through PT1 and PT3, which will help the county to encourage public transport use through improved connectivity and ticket improvements.
ISA2: Economy	Policies and strategies have mainly resulted in minor positive effects, with some significant positive effects anticipated. LTP4 includes policies to improve the connectivity across Warwickshire and beyond, through road, public transport and active transport developments. This will provide greater access for business, employment, and tourism. Economic benefits will also arise from improvements to the freight network, as this contributes to building Warwickshire's economy, and links with the wider economy which will help to ensure a strong and sustainable economy.
ISA3: Health	Policies and strategies have mainly resulted in mostly minor positive or negligible effects. LTP4 policies (particularly policies included within the active travel and public transport strategies) include plans for sustainable and active travel, which is likely to improve access for all groups inclusively and help support more active lifestyle. Provision of sustainable travel options between rural areas of Warwickshire to urban centres will reduce severance, improve accessibility to jobs, services, healthcare and amenities and will open up access to the countryside. The LTP also helps to reduce the impact of the transport network on human health through improvements in air quality. The LTP4 recognises the importance of improving air quality in relation to human health.
ISA4: Safety	Policies and strategies have resulted in minor positive, mixed positive and significant positive effects on ISA4. Policies within the Safer Travel strategy, and policies F6 and F7, aim to improve the safety of the road network and reduce the number of people killed or seriously injured on the roads, whilst policy F3 promotes the improvement in safety of lorry parking facilities, improving safety. Other positive effects have been identified, as the LTP introduces policies that will ensure the maintenance of roads, encourages behavioural changes, increased rural connectivity and access to active travel will in turn will increase the safety of the transport network. The vision of reduced number of cars on the roads contributes to helping to reduce the number of accidents and improve the safety of the transport network. However, freight policies and some elements of the motor vehicle strategy are likely to increase the number of HGVs on Warwickshire's roads, raising safety risks.
ISA5: Biodiversity	Policies and strategies have resulted in uncertain, negligible mixed positive and negative and negative effects on biodiversity, natural capital and ecosystem services. Policies that encourage sustainable transport modes are likely to help decrease air quality emissions which may indirectly benefit the biodiversity in Warwickshire. Greater uptake in

ISA6: Natural Capital	sustainable transport modes may also reduce the number of single occupancy journeys which could lessen the impact of disturbance on habitats and species. However, the majority of policies and associated interventions could result in the disturbance and loss of biodiversity as part of their construction and operation where physical interventions are required (particularly the motor vehicle and freight strategies). If not carefully aligned interventions could sever green infrastructure networks, degrade or isolate ecosystem services and adversely affect biodiversity through habitat destruction and increased noise and air pollution levels.
ISA7: Ecosystem Services	
ISA8: Landscape and Townscape	Policies and strategies have predominantly resulted in effects that are either both positive and negative, minor positive, or minor negative. Some LTP4 policies could require significant road, rail or freight infrastructure which could significantly alter the landscape and townscape in certain locations. In addition, large numbers of concurrent smaller scale interventions could have similar effects, particularly during construction on townscape. However, increased connectivity across Warwickshire will enable greater and more tranquil access the county's unique landscapes, which could present opportunities to generate activity and vitality and help define the character of development distinctive to the surrounding areas. Effects on landscape and townscape will, therefore, be highly dependent upon the type and location of interventions that come forward as a result of LTP4.
ISA9: Historic Environment	Policies and strategies have predominantly resulted in effects that are either both positive and negative, minor positive, or negligible. Some LTP4 policies could require transport infrastructure and associated components such as street fixtures, lighting, furniture, signage, and maintenance equipment, can have a major visual impact, which has the potential to erode the character and the setting of heritage assets. Increasing the efficiency of the transport network, particularly through new route developments, may result in a negative impact on heritage assets may also impact on buried archaeology, historic landscapes and a potential impact on the setting of other historic assets such as scheduled monuments, listed buildings, historic parks and gardens, conservation areas and undesignated assets. Effects on the historic environment will therefore be highly dependent upon the types of interventions that come forward as a result of LTP4.
ISA10: Water Quality	LTP4 policies and strategies result in predominantly uncertain, mixed positive and negative, negative or negligible effects on water quality in the county. Policies with the potential for construction works of new highways, rail services and stations, and other improvements, may negatively impact water quality through construction increasing mobility of pollutants and affected water quality and altering hydrology and geomorphology of watercourses if infrastructure in watercourses is required. Many policies focused on intra-town connectivity are likely to have negligible effects on watercourses so negative effects are mostly concerned with rural set interventions or those towns with watercourses intersecting them.
ISA11: Flood Risk	Policies and strategies have generally resulted in negligible, uncertain, or minor negative effects upon flooding. The majority of uncertainty comes from not knowing the extent or type of interventions to be implemented. Any intervention that increases impermeable surface areas in the county will contribute to increased flood risk and subsequently result in negative effects. Where clarity on the type of intervention is more certain (such as in the motor vehicle strategy) more negative effects can be observed.
ISA12: Air Quality	Policies and strategies have resulted in either minor positive, mixed positive and negative, negligible, or minor negative effects upon air quality. Active travel, Public Transport and

	Managing Space strategies will encourage a modal shift away from private car use, reducing the number of vehicles on Warwickshire's roads, improving air quality. However, other policies indicate a likely increase in construction of infrastructure and numbers of road-based vehicles, leading to a degradation of air quality. LTP4 focuses on a core shift away from private car use, contributing to the improvement of air quality in the county. Most of the policies within LTP4 are likely to reduce the number of vehicles on roads and thus lower transport related emissions, protecting the air quality in Warwickshire.
ISA13: Climate Change and GHGs	Policies and strategies within LTP4 result in significant positive, minor positive, minor negative, and negligible effects on climate change and GHGs. The climate generally negatively effects the operation of the transport system. With future trends on climate change predicting more extreme climatic conditions, it is likely that there will be more significant effects in the future unless designed for and managed properly. Therefore, future proofing the network as part of LTP4 is likely to ensure the transport network will be resilient to future climate changes. Policies throughout the LTP, particularly Active Travel, Public Transport and Managing Space policies, work towards a more resilient transport network in the future, through decarbonisation of road-based transport and increasing the resistance of the transport infrastructure to climate change impacts. However, strategies such as Freight and Motor Vehicles encourage the continued use of motor vehicles, contributing to worsening GHG emissions.
ISA14: Land Use and Waste	Policies and strategies of LTP4 have been found to have uncertain, negligible, mixed positive and negative, and minor negative effects on the efficient use of land. New infrastructure development can be resource intensive which could have a negative impact on land and resources in Warwickshire. Despite possible negative effects, the Managing Space strategy policies could help to reduce negative impacts through the use of brownfield sites or previously developed land and avoid encroachment on valuable areas of land. Some uncertainty remains on the scale and extent of likely interventions in some cases, and the effects on land use that will bring. The transition towards a more sustainable transport network, with increased connectivity, could be resource intensive, however, the use of sustainable materials during maintenance and construction and sourcing them using a circular economy, will help to reduce this negative impact on resources.
ISA15: Soils	Policies and strategies within LTP4 result in uncertain, negligible, mixed positive and negative, and minor negative effects on Warwickshire's land. There may be a negative effects upon Warwickshire's agriculturally important land, as new infrastructure developments can be resource intensive which could require large land take and could result in the loss of the some of the best and most versatile land.
ISA16: Noise and Vibration	The effects upon noise from LTP4 policies and strategies are positive, negligible, and mixed positive and negative. As with other ISA objectives, this range of effects reflects the diversity of policies and likely interventions associated with them. The delivery of improved public transport and local walking and cycling networks, will have positive effects on noise across Warwickshire, particularly along heavily congested routes. However, the potential for new developments may result in increased noise pollution, particularly during the construction phase. Additionally, the increased connectivity proposed within all strategies may result in increased noise pollution in rural areas, and areas with existing low levels of noise.

ASSESSMENT OF ALTERNATIVES

As no new alternative to LTP4 was presented, the assessment of alternatives compared LTP4 to the existing LTP3. This is considered the 'do nothing' approach. The assessment of alternatives has resulted in a higher number of uncertainties and negative effects compared to LTP4 overall. The assessment highlighted that the majority of the LTP3 policies are outdated or no longer reflect global issues (such as climate change and Covid-19) and are therefore not fit for purpose. In light of this, negative effects were identified in relation to ISA objectives such as flooding, biodiversity and noise and vibration, while significant negative effects were identified on air quality and GHG emissions.

CUMULATIVE EFFECTS

An assessment of the potential cumulative effects of LTP4 with the local transport plans of neighbouring authorities was completed, looking at the potential impacts at a strategic level.

The following plans were considered:

- Other County Local Transport Plans;
- District and other Local Authorities' Local Plans;
- Midlands Engine Rail;
- East West Rail;
- HS2 Phase 1 and Phase 2;
- Birmingham Airport Expansion; and
- Nationally Significant Infrastructure Projects (NSIPs).

Potential positive cumulative effects were identified for population and equalities, economy and employment, human health, community safety, landscape and townscape, historic environment, water environment, air quality, noise and vibration and climate change and greenhouse gases. There are potential uncertain/negative effects upon human health, biodiversity and natural capital (although this is dependent on the overall net gain following completion), landscape and townscape, historic environment, water environment, soils, resources and waste, and noise and vibration (during construction phases).

MITIGATION AND ENHANCEMENTS

Mitigation measures are considered to prevent, reduce or offset any adverse effects on ISA objectives arising from LTP4's strategies, policies and likely interventions proposed to implement these. Mitigation measures have been proposed for all ISA objectives with the exception of economy (ISA2) and safety (ISA4).

Mitigation measures recommended include, but are not limited to, the following key measures:

- Incorporate Biodiversity Net Gain (BNG) and make use of the natural capital approach into the LTP4;
- Incorporate Air Quality Action Plans and Noise Action Plans into strategies;
- Incorporate clarity, commitments and targets in relation to climate greenhouse gas emissions, water quality and flood risk into LTP4;
- Update Warwickshire's Strategic Flood Risk Assessment (SFRA) (from 2013) to reflect the baseline environment of LTP4

- Where possible, new developments should be located on brownfield land, or land that has previously been developed; and
- In the case of highway and freight interventions, if alternative interventions are not feasible, then avoidance of receptors should be pursued alongside appropriate measures for environmental and human receptors.

MONITORING

The purpose of the monitoring is to provide an important measure of the sustainability outcome of the final LTP, and to measure the performance of the plan against sustainability objectives and targets. Monitoring is also used to manage uncertainty, improve knowledge, enhance transparency and accountability, and to manage sustainability information.

Monitoring measures recommended include, but are not limited to, the following key measures:

- Establishing a record for the number of biodiversity enhancement schemes implemented, the number of new green infrastructure projects and BNG;
- Monitoring of the loss of greenfield land or best most valuable land (BMV) to developments;
- Record the number of historic assets affected (negatively or positively) by the LTP implementation;
- Establish and monitor Warwickshire's increase/decrease in carbon emissions; and
- Monitor air quality and noise within existing Air Quality Management Areas (AQMAs) and Noise Impact Areas (NIAs) to ensure they do not exceed baseline levels.

NEXT STEPS

This ISA Report will be issued to consultees in September 2022 for an 8-week consultation period, alongside the draft LTP4. Following consultation, any necessary amendments will be made in responses to consultation comments and a finalised version of the report will be issued, alongside a post-adoption statement.

1 INTRODUCTION

1.1.1 This document is the Integrated Sustainability Appraisal (ISA) for Warwickshire County Council's (herein referred to as WCC) fourth Local Transport Plan (LTP).).

1.1.2 The previous LTP, LTP3[1], which came into effect in 2011 covers the period 2011-2026 while the draft LTP4 will cover the period 2022-2026.

1.1.3 The LTP4 is being developed to allow WCC to address new and emerging transport needs. The LTP4 will identify transport policies and strategies needed to manage and maintain Warwickshire's transport network in a safe, sustainable and integrated way[2]. Further details of LTP4 can be found in **Section 2**.

1.2 STRATEGIC ENVIRONMENTAL ASSESSMENT

1.2.1 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 (SI 2004/16331, known as the 'SEA Regulations').

1.2.2 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 LTP4 is). Local Transport Authorities (in this case WCC) should ensure that the SEA is an integral part of development and delivering their LTP.

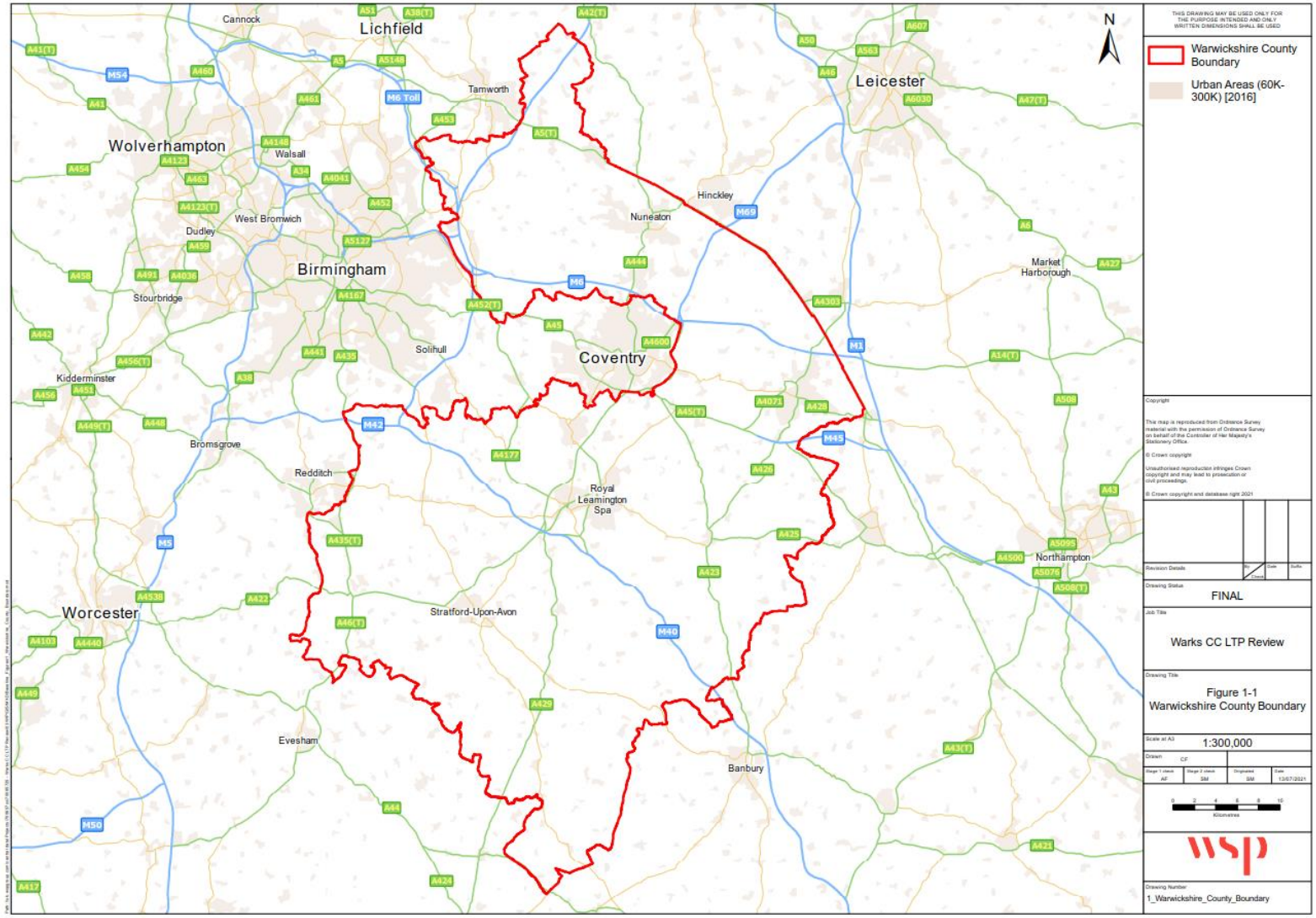
1.3 WARWICKSHIRE

1.3.1 The county of Warwickshire is located in the West Midlands where it borders Staffordshire and Leicestershire to the north, Northamptonshire to the east, Oxfordshire and Gloucestershire to the south, and Worcestershire and the West Midlands to the west. The county has an area of 1,979 km^2 and is divided into the five districts of North Warwickshire, Nuneaton and Bedworth, Rugby, Warwick and Stratford-on-Avon. The Warwickshire county boundary is shown in **Figure 1-1** below.

[1] Warwickshire County Council, Local Transport Plan 2011-2026 [online] available at: https://www.warwickshire.gov.uk/directory-record/2149/local-transport-plan-2011-2026

[2] Warwickshire County Council, Local Transport Plan: key themes consultation brochure [online] available at: https://ask.warwickshire.gov.uk/insights-service/ltp-themes/supporting_documents/WCC%20LTP%20Key%20Themes%20Brochure_200120.pdf

Figure 1-1 - Warwickshire County Boundary



1.4 INTEGRATED SUSTAINABILITY APPRAISAL

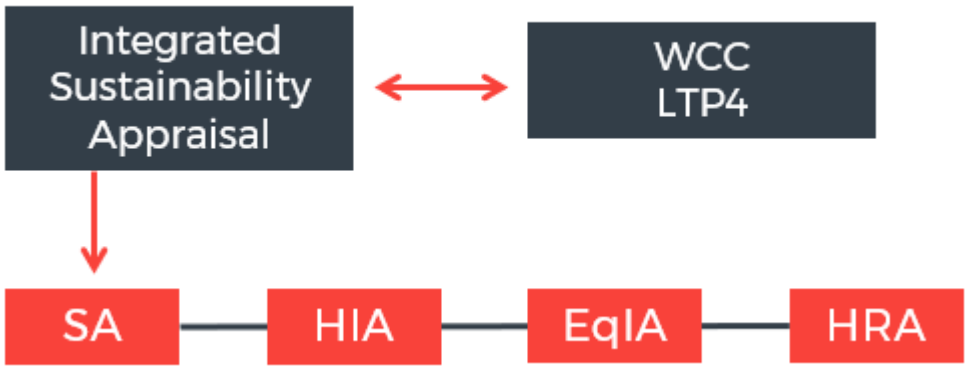
1.4.1 ISA is a systematic process that is undertaken during the preparation of a plan. Its role is to promote sustainable development by assessing environment, social and economic impacts as well as mitigating any potential adverse effects that the plan may otherwise have.

1.4.2 This ISA has been undertaken alongside the LTP4 to ensure that sustainability aspects are incorporated into the Plan and complies with the SEA Regulations.

1.4.3 The ISA, as set out in **Figure 1-2**, combines the following assessment processes:

- The SEA;
- Health Impact Assessment (HIA);
- Habitats Regulations Assessment (HRA); and
- Equalities Impact Assessment (EqIA).

Figure 1-2 - ISA and Component Processes



1.4.4 With the exception of the HIA, the component assessment processes are all required by separate legislation. While it is important that these assessments are undertaken according to legal requirements, they also feed into the ISA as the main tool to assess the Transport Strategy using the ISA Sustainability Appraisal Framework objectives.

1.4.5 This ISA Report sets out the second and third stage of the ISA process, following a Scoping Report[3] which determined the issues to be included in the ISA. This report sets out:

- Information on the Transport Strategy (**Section 2**);
- The methodology used for the ISA and its constituent processes (**Section 3**);
- A summary of the sustainability issues and opportunities identified during scoping (**Section 4**);
- The results of the ISA assessments, along with proposed mitigation and monitoring (**Section 5**);
- The assessment of alternatives (**Section 6**);
- The assessment of cumulative effects (**Section 7**);
- Proposed mitigation, enhancement and monitoring measures (**Section 8**);
- Proposed recommendations for the development of LTP4 (**Section 9**); and
- The next steps in the ISA process (**Section 10**).

[3] WSP (2021) Warwickshire County Council, Local Transport Plan Integrated Sustainability Appraisal Scoping Report

2 THE WARWICKSHIRE TRANSPORT PLAN

2.1 PURPOSE OF THE TRANSPORT PLAN

2.1.1 LTP4 is being developed to allow WCC to address new and emerging transport needs. LTP4 will identify transport policies and strategies needed to manage and maintain Warwickshire's transport network in a safe, sustainable and integrated way[2].

2.1.2 LTP4 is being developed to support the three Priority Outcomes of WCC's Council Plan[4]:

- Vibrant Economy and Places - Right jobs, training, future skills, education, infrastructure and places;
- Best Lives - Communities and individuals supported to live safely, healthily, happily and independently; and
- Sustainable Futures - Adapting to and mitigating climate change and meeting Net Zero commitments.

2.1.3 LTP4 aims to have a flexible, tailored approach to transport changes, and deliver appropriate policies for future impacts upon transport, for example through climate change and decarbonisation of the transport sector, as well as societal changes.

2.2 ELEMENTS OF THE TRANSPORT STRATEGY

2.2.1 The four key themes for LTP4 are environment, economy, place and wellbeing, with all policies working together to address the challenges associated with these themes. The vision for outcomes of the LTP for each theme is as follows:

- Environment - Travel choices which contribute to Carbon Net Zero and leave no negative impacts on our environment;
- Economy - A modern, flexible economy which is supported and strengthened by transport options;
- Place - Urban and rural areas, and the connections between them, where transport choices work sustainably with the local environment; and
- Wellbeing - A range of transport options which provide safety, comfort and health for users and those affected by transport.

2.2.2 The LTP proposes a series of strategies (and policies) to guide future decision making. These policies are detailed in **Table 2-1** and work together to create the LTP4 and are grouped under seven strategies that form LTP4 (see below):

- Core Strategy;
- Active Travel Strategy;

[4] Warwickshire County Council, Council Plan 2022-2027

- Public Transport Strategy;
- Motor Vehicles Strategy;
- Managing Space Strategy;
- Road Safety Strategy; and
- Freight Strategy.

Table 2-1 - Transport Strategy Policies

Strategy	Policies
Core Strategy	**Policy Position KP1 - Engaging with communities to provide transport options which recognise the unique travel needs of Warwickshire's different places:** *Within the overall aim to provide and develop a sustainable transport network, WCC will tailor interventions to suit local requirements. Urban, semi-urban and rural areas, and the transport corridors between them, will have different needs and solutions. We will listen to the needs of communities and work with partners to maximise opportunities to provide modern, fit-for-purpose, sustainable travel choices.* **Policy Position KP2 - Transport interventions which align with our Council Vision, government policy and as many of our four key strategy themes as possible:** *All policies and interventions will deliver benefits for the environment, wellbeing, place and/or economy. They will be designed to facilitate the right jobs, training, future skills, education, infrastructure and places. We will ensure that communities and individuals are supported to live safely, healthily, happily and independently. We want Warwickshire to be a prime example of a sustainable, net zero county.* **Policy Position KP3 - Decarbonising transport and transport related infrastructure:** *Transport contributes a greater proportion of carbon emissions than any other sector. WCC will pursue actions and objectives that seek to reduce pollution in general, and carbon emissions in particular, through a range of interventions. Car dependency will be discouraged, where suitable, in favour of more sustainable travel choices. We will consider the carbon cost of our activities on a cradle to grave basis, including new and improved transport infrastructure, such as roads, rail and bridges.* **Policy Position KP4 - A flexible approach to policy development in response to a changing Warwickshire:** *Our new Local Transport Plan cannot afford to be rigid in its approach. It will need to adapt to a changing Warwickshire and the wider world beyond our borders. The LTP will therefore be outward-looking and pro-active, seeking to identify challenges and opportunities that may have an impact on* *our transport network. To do this, we will regularly review our existing approach by questioning its on-going relevance and, where necessary, seeking to implement new policies that address these changes and aim to make Warwickshire a better place.* **Policy Position KP5 - Data and evidence led monitoring and evaluation of our transport interventions:** *Throughout the lifetime of the Local Transport Plan, our Action and Monitoring Plans will be dynamic. They will evolve as we deliver and conclude transport schemes in some parts of the County and initiate new schemes in others. We will collect data both to determine the effectiveness of our transport interventions and to inform future works and direction.*
Active Travel Strategy	**Policy Position AT1 – Improving accessibility and attractiveness of active travel options:**

Strategy	Policies
	Warwickshire County Council will seek to promote the attractiveness of active travel options by improving the facilities that enable and increase access to them. We will do this through our own interventions and also by influencing the planning and development process. Measures may include: ▪ *improvements at bus and rail interchanges, car parks, town centres and key public buildings* ▪ *cycle parking facilities; easier access to rental bikes; e-bike hubs; more lockers and showers in new workplace developments* ▪ *low carbon last mile goods deliveries* **Policy Position AT2 – Better, safer routes for walking and cycling:** *WCC has developed a hierarchy of travel choice which seeks to establish active travel options at the forefront of transport choices for Warwickshire's residents and visitors. Safety is critical in promoting cycling and walking. We will design, create and place emphasis on the maintenance of local walking and cycling routes which offer coherent, safe, comfortable, attractive, direct connections that are accessible to all. WCC will do this through:* ▪ *Local Cycling and Walking Infrastructure Plans (LCWIPs)* ▪ *liaison with local cycling and walking groups* ▪ *active involvement in the road safety audit process to prioritise cyclist and pedestrian welfare* **Policy Position AT3 – Information and Promotion:** *The benefits of active travel choices in terms of physical and mental well-being and the economic and environmental advantages are well known. But it is not enough to build better cycling and walking routes and expect people to use them. WCC will exploit all media platforms to provide information to promote active travel routes. We will develop better county-wide mapping and signing and carry out regular surveys and audits on active travel uptake.*
Managing Space Strategy	**Policy Position MS1 – Increasing sustainable development and travel:** *WCC will encourage sustainable development through the promotion of public and community transport, the provision of cycling and pedestrian facilities and traffic management measures. Where feasible and appropriate, space will be reallocated to more sustainable travel options.* *Working with communities, the district and borough councils, external organisations and developers, we will use our influence to put pressure on new developments and the transport options which serve them to be as environmentally beneficial as possible. We will take evidence-based decisions which may include requirements for transport assessments, travel plans, modelling assessments and other appropriate data.* **Policy Position MS2 – Travel options which are accessible to all:** *We want Warwickshire's residents and visitors to be able to travel around the county in safety and for transport options to be accessible to all. In its role as Highway Authority, WCC will strive to ensure that all developments are accessible, that designs and layouts contribute to the local area and that improved connectivity to footways, cycleways and public transport are incorporated.* **Policy Position MS3 – Prioritising use of space to promote sustainable travel options:** *Warwickshire is a diverse semi-rural county, with small villages and medium-sized towns surrounded by large areas of countryside. Transport interventions will therefore recognise*

Strategy	Policies
	the need to tailor solutions according to individual community needs within an overall framework of sustainability and economic success. *In more urban areas, space will be prioritised to promote public transport, cycling and walking and to facilitate non-polluting private vehicle transport. Reduced car dependency is a key aspiration in places where this is appropriate.* *Interventions may include:* ▪ *changes to parking provision, management and technology* ▪ *safe cycling and walking routes* ▪ *Park and Ride facilities, bus interchanges* ▪ *infrastructure for electric and hydrogen powered vehicles and connected autonomous vehicles* ▪ *Clean Air Zones* ▪ *route strategies* ▪ *low traffic neighbourhoods* ▪ *school streets* **Policy Position MS4 – Robust data-led decision making in assessing new developments:** *Where development is proposed, we will take evidence-based decisions which may include requirements for transport assessments, travel plans, modelling assessments and other appropriate data. The County Council will require the use of micro-simulation modelling techniques to support Transport Assessments, where appropriate, in accordance with our Modelling Protocol. The Council will publish and keep under review a protocol for modelling assessments and will work with applicants to scope the individual requirements for the sites/areas under assessment.* **Policy Position MS5 – Construction to best available standards:** *We will ensure that new highways, including those built by developers, are constructed to the best available standards. Developers will be required to follow the Warwickshire Design Guide which provides expectations of build quality. We will use appropriate legal agreements to ensure that developer-built roads are of sufficient standard to be adopted by the Council as a public highway.* *WCC commissioned highways will abide by the Construction Design Framework which embeds carbon reduction and climate change into our contract work.* **Policy Position MS6 – Influencing Planning Authorities and Developers:** *WCC does not have responsibility for planning decisions concerning most types of development. However, we are consulted on most development proposals and will use these opportunities to influence development in ways which provide better, safer, more sustainable transport options.* *Using planning law, we will create binding legal agreements that require developers to make contributions with the aim of improving travel infrastructure in the county.* *We will continue to require activities from developers which include: road safety audits; school travel plans and promoting safer routes to schools; encouraging better walking connections and accessibility for disabled people; transport assessments and statements for new developments.*

Strategy	Policies
Motor Vehicle Strategy	**Policy Position MV1 – Using our influence with partners to provide a modern fit-for-purpose route network:** *WCC will work with organisations such as DfT, National Highways, Midlands Connect, West Midlands Combined Authority, Planning Authorities and neighbouring local councils to provide a road network which is safe, convenient and fit for purpose for all its users. Our route network will need to be resilient and flexible enough to adapt to pressures from development. We will work closely with planning departments to identify pressures and provide evidence-led solutions, which will include options for alternative, more sustainable transport choices.* **Policy Position MV2 – Increased use of technology in network monitoring:** *We recognise the value of technology in helping to maintain network performance and will seek to increase its use to provide data to support targeted interventions. WCC will monitor the effectiveness of our network as it responds to changes from developments, environmental concerns and the needs of local communities, reviewing our route hierarchy as necessary.* **Policy Position MV3 – Maximising funding opportunities:** *WCC will seek developer contributions, where appropriate, to fund sustainable improvements both to the network itself and to provide alternative transport options to car use in order to deal with the impact of developments across Warwickshire. Our aim will be for growth to complement and improve our existing environment, rather than being a reason for more roads, vehicles, congestion and pollution.* **Policy Position MV4 – Making our towns and villages and the routes that connect them better places to be:** *Warwickshire's residents tell us that the places they live and visit are better when they are not dominated by cars. We will seek to reduce the volume of through-traffic in our urban and semi-rural areas. This will improve the amenity of Warwickshire's places, their air quality and provide better environments for active travel choices.* *New infrastructure will consider the needs of all road users, ensuring continued connectivity between places, but providing attractive alternatives to car use, with benefits to the environment and people's well-being as a result.* *Examples of interventions may include:* ▪ *more easily accessible electric and hydrogen vehicle re-fuelling* ▪ *freight routes* ▪ *low carbon last mile goods deliveries: using or switching to cycles or e-bikes for the short, final stages of deliveries* ▪ *reduced traffic town centres (retaining disabled access) and suburban neighbourhoods connected and autonomous vehicles (CAVs)* ▪ *Park and Ride facilities*
Public Transport Strategy	**Policy Position PT1 – Working with partner organisations to improve public transport:** *Delivery of a successful, integrated public transport network can only be the result of partnership work between the private companies which operate rail and bus services, the County Council and key industry organisations.* *WCC will develop and strengthen relationships with Network Rail, DfT, West Midlands Rail Executive and Midlands Connect. We will work with private rail companies and listen to the*

Strategy	Policies
	public transport needs of communities. Our BSIP has been produced jointly with bus operators and with them we have created an Enhanced Partnership that sets out how we will work together to deliver BSIP outcomes. We will maximise funding opportunities to promote and develop the existing public transport network. **Policy Position PT2 – Making our towns and villages and the routes that connect them better Improved accessibility and attractiveness of public transport as a travel choice** *WCC will work with the bus and rail sector to develop proposals for new services, stations and interchanges which allow connections from a range of other travel types to provide a truly integrated public transport network. We will work with partner organisations to ensure that vehicle fleets and facilities at rail and bus stations are improved to be the best they can be. Better bus connections, safe cycle parking and more electric vehicle charging points at stations are just some of the improvements we will want to see. Additionally, the County Council will also seek to retain the existing levels of passenger services and stations.* **Policy Position PT3 – Information and ticketing:** *Convenience and cost are hugely influential factors in determining which travel options the public chooses. We recognise that smart-ticketing, contactless payments and simpler fare structures will make it easier for more people to use public transport. WCC will work with its partners to review and develop new, simpler, more flexible ways of obtaining and paying for journeys, and ticketing that allows journeys to be made on different forms of transport. We will rely on our transport partners to provide accurate and up-to-date information accessible across all media.* **Policy Position PT4 – New developments and connectivity to public transport services:** *Population growth is likely to place strain on all areas of transport. WCC will work with colleagues in the local district and borough planning departments to ensure that new developments maximise their opportunities to provide excellent access to the public transport network, taking into account potential demand from new development.* *We want to improve Warwickshire's places and the connections between them. Public transport infrastructure, waiting areas and interchange facilities should add to the quality of local centres and provide a focus for growth and investment.* *Where possible we will secure developer funding towards the cost of public transport improvements.* **Policy Position PT5 – Community Rail Partnership:** *A number of Community Rail Partnerships (CRP) have been established across the country, including the Heart of England CRP which was established in 2019 and covers part of Warwickshire, Coventry and Solihull. CRPs engage communities and develop projects to help ensure the railway supports the social, economic and environmental wellbeing of the areas they serve. The County Council will continue to support Community Rail initiatives, such as the Heart of England CRP.*
Safer Travel Strategy	**Policy Position ST1 – Working with Partners to deliver road safety improvements:** *Warwickshire County Council Road Safety teams will own and deliver the activities identified as their responsibility within the WRSP strategy. WCC will engage fully with the process to create, manage and fulfil a successful WRSP.* *To date, the County Council's approach to road safety has been to recognise that there are three broad areas which combine to create safer roads. These are education, engineering and enforcement. Enforcement of offences such as speeding, dangerous driving and driving*

Strategy	Policies
	under the influence of alcohol or drugs lies within the remit of Warwickshire Police. Aside from working closely with the Police in the WRSP, the County Council has little direct involvement in enforcement. **Policy Position ST2 – Evidence-led road safety engineering interventions:** *WCC will use all available data and evidence to inform its engineering interventions and responses. The WRSP strategy describes the numerous ways that each partner organisation will contribute to the overall road safety approach. These include, but are not limited to, casualty reduction schemes, road safety audits, traffic calming initiatives and speed management measures. A full list of WCC road safety engineering activities is available in the WRSP strategy document.* **Policy Position ST3 - Wide-ranging community engagement to improve road safety:** *Warwickshire will continue to carry out a wide range of community engagement activities, helping to promote road safety through various approaches under the general banner of 'education', from primary schoolchildren, through secondary education, driver offender courses, mature drivers and vehicle specific campaigns, including motorbike and cycling initiatives. Again, a full description of WCC road safety education schemes is available in the WRSP strategy document.* **Policy Position ST4 - Road engineering design to align with appropriate quality standards:** *Our Engineering Design Services (EDS) teams will continue to ensure that all new road construction in Warwickshire and improvements to existing road layouts will be carried out in accordance with the latest, most appropriate construction and road design standards.* *EDS will engage with the road safety auditing process as part of the initial design and in the pre- and post-construction stages of projects so that safety remains at the forefront of all design decisions.* **Policy Position ST5 – Promoting safety in all travel choices:** *Travel safety is not just about road safety. We want people to feel personally secure whenever and however they choose to move around the county. To this end we will work with partners including the police, private sector bus and rail companies, district and borough councils and developers to seek improvements to other forms of transport so that modern, convenient, cost effective and secure alternatives to car usage are available.* *We will seek safety improvements to facilities such as bus stops, bus and rail stations, pedestrian and cycle routes so that they are safer and, just as importantly, feel safer to potential users.*
Freight Strategy	**Policy Position F1 – Promote shift from road to rail and active travel modes:** *WCC will work with developers, freight operators and customers to encourage a transport shift to more sustainable modes, helping reduce carbon emissions, improve air quality and road safety. This may require the introduction of new and improved infrastructure and the promotion of efforts to encourage co-operation in the freight sector.* **Policy Position F2 – Facilitate the transition to alternative fuels for freight vehicles:** *WCC will work with partners to provide a network of recharging and refuelling stations that allows goods to flow freely across the county, without impacting on the environment through emissions, to provide continuity and growth of the local economy.* **Policy Position F3 – Support efforts to deliver a better network of lorry parking in the county:**

Strategy	Policies
	The strategic location of the county, as well as its distance of several hours' drive from major ports in the south of England, means that there is demand for good quality, safe and secure lorry parking in the area for drivers to rest. We will work with planning authorities and developers to ensure that supply meets demand. Professional drivers should be safe, well-rested and best prepared to operate safely on Warwickshire's roads. **Policy Position F4 – Support and deliver initiatives that improve journey time reliability for freight movements:** *Congestion results in reduced productivity and losses to the local economy. We will support efforts to improve the Strategic Road Network (SRN) and Major Road Network (MRN) to increase journey time reliability and the efficiency of the supply chain.* **Policy Position F5 – Reduce the impact of 'last mile' deliveries:** *Last mile deliveries often take place in our town centres and increasingly to our homes. The proliferation of vans in affected locations can impact on the amenity of an area and create local air quality issues. WCC will look to progress initiatives that help consolidate, re-time and reduce the number of deliveries as well as promoting active travel solutions for goods deliveries.* **Policy Position F6 – Reduce incidents involving freight vehicles:** *We will work with the logistics sector and partners such as the police to promote options that will reduce the likelihood of collisions occurring on our network. Our Warwickshire Road Safety Partnership will consider the role of goods vehicles in road safety on Warwickshire's road network as we strive to reduce casualties to a minimum.* **Policy Position F7 – Encourage freight vehicles to use appropriate routes:** *HGVs using unsuitable routes can affect the amenity of the affected area and also may present a safety issue. Promotion of appropriate routes can help reduce instances of HGVs using roads with environmental weight limits and enhance the well-being of those living and working in affected areas.*

3 ISA METHODOLOGY

3.1 INTRODUCTION

3.1.1 Detail on each of assessment forming part of the ISA, and how they fit into the ISA for LTP4, is set out below.

3.2 STRATEGIC ENVIRONMENTAL ASSESSMENT

3.2.1 The SEA/SA process is carried out during the preparation of local plans and spatial development strategies. Its role is to promote sustainable development by assessing the extent to which emerging plans will help to achieve relevant environmental, economic and social objectives.

3.2.2 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' (SI 2004/1633, the 'SEA Regulations')[5].

3.2.3 SEA is mandatory for plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste or water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development consent of projects listed in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017[6].

3.2.4 SEA only considers the environmental effects of a plan whilst SA also considers a plan's wider economic and social effects. It is obligatory that SAs meet all of the requirements of the SEA Regulations.

3.2.5 The approach adopted for the SA follows that set out in the Practical Guide to SEA[7] and the Planning Practice Guidance to SEA[8]. SAs do however need to meet all of the requirements of the SEA Regulations, so a separate strategic environmental assessment should not be required.

3.2.6 The key stages of the SEA process are the following:

- Stage A: Setting the context and objectives, establishing the baseline and deciding on scope (the ISA Scoping Report);
- Stage B: Developing and refining strategic alternatives and assessing their effects (this stage);

[5] SI 2004 No. 1633, The Environmental Assessment of Plans and Programmes Regulations 2004 [online] Available at: http://www.legislation.gov.uk/uksi/2004/1633/pdfs/uksi_20041633_en.pdf

[6] The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 [online] Available at:

http://www.legislation.gov.uk/uksi/2017/571/introduction/made

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

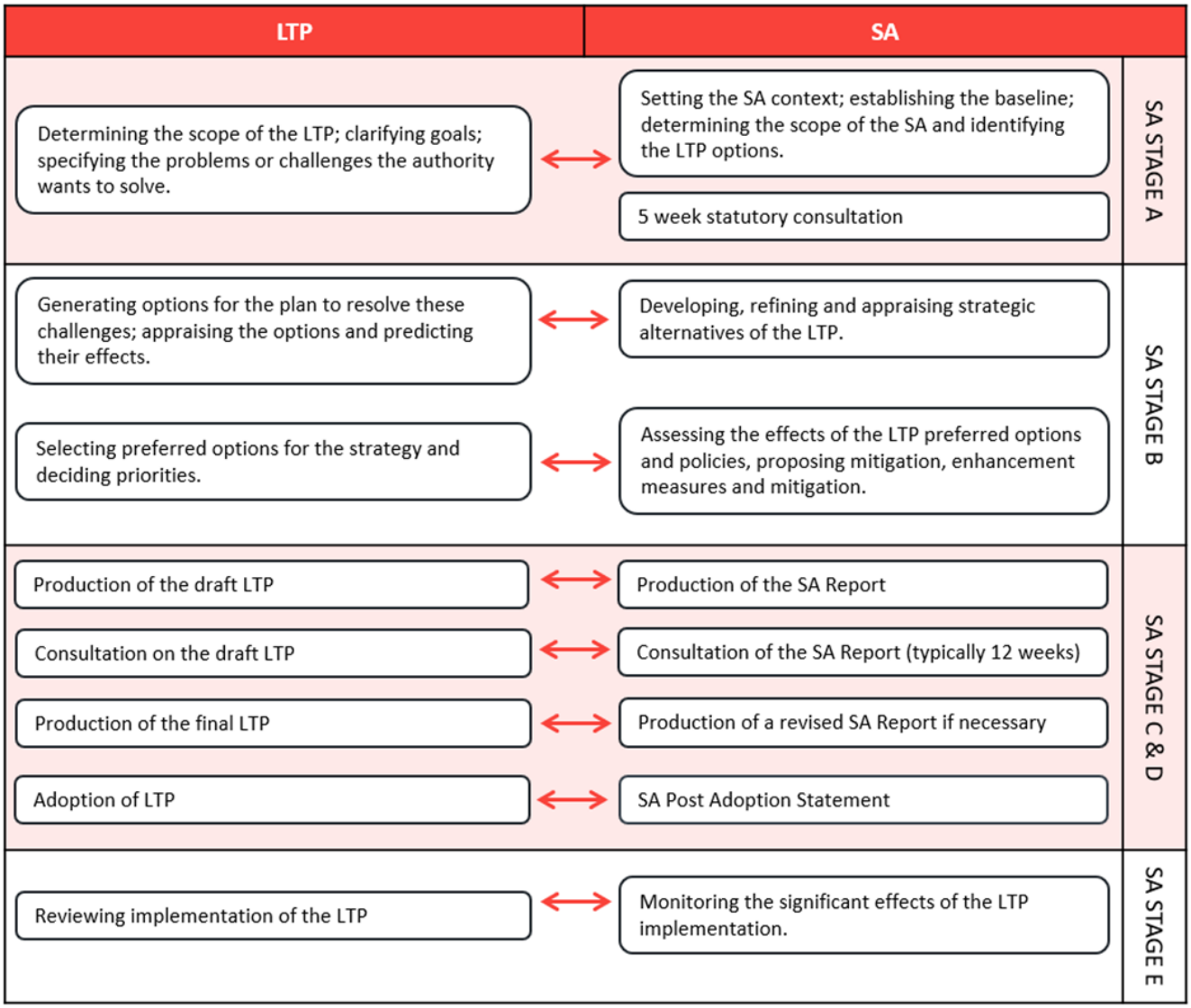
[8] Department for Communities and Local Government (2015) Strategic environmental assessment and sustainability appraisal. Available at: http://planningguidance.communities.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/

- Stage C: Preparing the ISA (Environmental) Report (this stage);
- Stage D: Consulting on the draft plan or programme and the ISA Report (this report); and
- Stage E: Monitoring the significant effects of implementing the plan or programme on the environment.

3.3 ISA PROCESS AND REQUIREMENTS

3.3.1 **Table 3-1** below sets out the ISA process. The integration of the ISA with the LTP process is shown in **Figure 3-1**. This Report represents Stage B and Stage C.

Figure 3-1 - SA and LTP Stages



STAGE A – SCOPING

3.3.2 As part of ISA Stage A, a Scoping Report was completed in September 2021, which provided baseline information, highlighted key issues and opportunities for the LTP and set out the ISA Framework. Consultation on the Scoping Report took place between September – October 2021, which allowed the statutory consultees to provide comments on the scope of the ISA, baseline information, the proposed methodology and the ISA framework.

3.3.3 Comments were received from Historic England and Natural England on the ISA Scoping Report and are outlined in **Table F-1** in **Appendix F**. The Environment Agency did not provide comments. **Table F-1** also provides our responses and actions taken in light of these comments.

3.3.4 The baseline information collected for the Scoping Report can be found in **Appendix D**.

STAGE B – ISA ASSESSMENT

3.3.5 Stage B comprises the assessment of the Draft LTP4, against the ISA Appraisal Framework objectives identified within the Scoping Report. This will aid the development of LTP4 and its policies.

3.3.6 The SEA Regulations also require consideration of reasonable alternatives. It is common practice for a SEA to consider what environmental effects would occur without the implementation of the plan (in this case the continuation of LTP3). This is done to allow the assessment of the likely effects that the implementation of the plan would have compared to any alternative plans (see **Section 6**).

3.3.7 The assessment of overall strategies and their proposed policies, as well as reasonable alternatives has considered the following:

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

3.3.8 The assessment of strategies, policies and alternatives is has been presented in matrix format and accompanied by explanatory text for each policy and strategy overall. The assessment criteria used is detailed in **Table 3-1**, below.

Table 3-1 - Key to Assessment

Effect Significance	Key
Potential for significant positive effects	++
Potential for minor positive effects	+

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

STAGE C AND D: REPORTING AND CONSULTATION

3.3.9 The results, recommendations, mitigation and monitoring measures have been summarised in the ISA Report (this report, Stage C).

3.3.10 In accordance with the SEA Regulations, the ISA Report must be made available at the same time as the draft plan or programme, as an integral part of the consultation process, and the relationship between the documents clearly indicated (Stage D).

STAGE E: MONITORING

3.3.11 This report sets out recommendations for monitoring the social, environmental and economic effects of implementing the Draft LTP4.

3.3.12 The purpose of monitoring is to measure the environmental outcome of a plan and the performance of a plan against pre-defined environmental objectives, targets, or inputs. If monitoring is carried out effectively it will contribute to managing uncertainty; improving knowledge; enhancing transparency, accountability and managing environmental information.

3.4 EQUALITIES IMPACT ASSESSMENT

3.4.1 The Equality Act 2010 includes a public-sector equality duty which requires public organisations and those delivering public functions to show due regard to the need to eliminate unlawful discrimination, harassment, victimisation; to advance equality of opportunity; and to foster good relations between communities.

3.4.2 The Equality Impact Assessment (EqIA) process focuses on assessing and recording the likely equalities effects as a result of a policy, project or plan. It seeks to ensure that the policy, project or plan does not discriminate or disadvantage people, and enables consideration of how equality can be improved or promoted. The equality duty came into force in April 2011 and covers the following Personal Protected Characteristics:

- Age;
- Disability;
- Sex and gender;
- Gender reassignment;

- Marriage and civil partnership;
- Pregnancy and maternity;
- Race;
- Religion or belief; and
- Sexual orientation.

3.4.3 The approach adopted for the EqIA of the Transport Strategy has been to combine it with the SEA process, with 'equalities' included as a topic for assessment alongside the environmental topics. There is also a separate EqIA provided at **Appendix B** to provide further context for the assessment.

3.5 HEALTH IMPACT ASSESSMENT

3.5.1 HIA is a process to identify the likely health effects of plans, policies or development and to implement measures to avoid negative impacts and / or promote opportunities to maximise the benefits.

3.5.2 There is no adopted formal methodology for HIA although there is a body of practice and guidance at policy level. Assessment of health can be undertaken as a discrete process within an HIA and can also be embedded within environmental assessments.

3.5.3 The approach adopted for the HIA of the Transport Strategy is therefore to combine it with the SEA process, with 'health' included as a topic for assessment alongside the environmental topics. There is also a separate HIA provided in **Appendix C** to provide further context for the assessment.

3.6 HABITATS REGULATIONS ASSESSMENT

3.6.1 Under Article 6 (3) of the EU Habitats Directive as transposed into the UK law by the Habitats Regulations[9], an assessment (referred to as a Habitats Regulations Assessment or HRA) needs to be undertaken in respect of any plan or project which:

- Either alone or in combination with other plans or projects would be likely to have a significant effect on a site designated within the Natura 2000 network – these are Special Areas of Conservation (SACs), candidate SACs (cSACs), and Special Protection Areas (SPAs). In addition, Ramsar sites (wetlands of international importance), potential SPAs (pSPA) and in England possible SACs (pSACs), are considered in this process as a matter of law or Government policy. [These sites are collectively termed 'European sites' in HRA]; and
- Is not directly connected with, or necessary to, the management of the site.

3.6.2 Guidance on the Habitats Directive sets out four distinct stages for assessment under the Directive:

- 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;

[9] The Conservation of Habitats and Species Regulations 2017. Available at: http://www.legislation.gov.uk/uksi/2017/1012/contents/made

- Stage 2: Appropriate Assessment: 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;
- Stage 3: Assessment of alternative solutions: the process which examines alternative ways of achieving the objectives of the plans or projects that avoid adverse impacts on the integrity of the Natura 2000 site; and
- 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.

3.6.3 The first stage of the HRA – Screening – is currently being undertaken in order to identify likely significant effects on European sites, as required by the legislation. Whilst feeding into the ISA process (specifically the 'biodiversity' topic), the HRA Screening has been undertaken as a standalone assessment. As work is still ongoing, the HRA will be consulted on separately.

3.6.4 Stages 2 to 4 of the HRA have not yet been progressed due to the strategic nature of the LTP4, and it's focus on policies and tools rather than specific interventions. Further screening and assessment will be required for any scheme identified or prioritised, as sufficient detail becomes available regarding the geography and nature of potential effects. WCC will ensure this is taken forward as part of the infrastructure scheme's delivery programme and undertaken by the scheme's promoter.

3.7 ASSUMPTIONS AND LIMITATIONS

3.7.1 The following assumptions and limitations have been identified:

- The preparation of the LTP alongside the ISA has allowed for an iterative process of assessment and refinement in the narrative and policies within the Plan. Therefore, some of the recommendations set out in this report may already have been addressed in the LTP and the ISA will be updated to reflect this.
- The assessment of policies, and alternatives, has been undertaken as a desk-based exercise using the baseline information from the Scoping Report. No site visits have been undertaken specifically for the purposes of the ISA.
- The LTP does not propose other specific development sites with defined boundaries above those mentioned. As such, the main focus of the assessment is of the strategic policies (policy alternatives) have been undertaken for the ISA.
- WSP have ensured that effects are predicted accurately; however, this can be challenging given limited understanding of precisely how the plan will be implemented. Given uncertainties there is inevitably a need to make some assumptions, however, these are made carefully and explained in detail within the assessment text.
- In some instances, given reasonable assumptions, it is not possible to predict 'significant effects', but it is possible to comment on the potential positive and negative effects of the draft plan and its alternatives in more general terms, therefore informing any likely developments of the LTP4 policy. This does mean that, at implementation phase, significant effects may not still occur depending on the nature and location context of specific interventions.

4 SUSTAINABILITY CONTEXT AND SUSTAINABILITY APPRAISAL FRAMEWORK

4.1 INTRODUCTION

4.1.1 This section sets out the sustainability issues and opportunities for the Transport Strategy and the ISA Appraisal Framework, against which the LTP has been assessed.

4.1.2 **Appendix D** sets out the Scoping Report baseline and review of plans, policies and programmes. Consultation on the Scoping Report has been completed and the baseline and ISA updated as appropriate, in line with comments from the Statutory Consultees (Environment Agency, Historic England and Natural England).

4.2 REVIEW OF PLANS, POLICIES AND PROGRAMMES

4.2.1 A plan may be influenced in various ways by other plans, policies or programmes, or by external environmental protection objectives such as those laid down in policies or legislation. These relationships enable the Responsible Authority to take advantage of potential synergies and to deal with any inconsistencies and constraints.

4.2.2 An initial review of policies, plans, programmes, strategies and initiatives that may have an impact on the preparation of relevant policies being reviewed has been undertaken as part of the Scoping Report. This review has helped to informed both the development of the LTP and the ISA framework.

4.2.3 **Appendix E** includes further details on the plans, policies and programmes identified during the Scoping Report.

4.2.4 **Table 4-1** overleaf sets out the key messages identified from this review.

Table 4-1 – Key Messages from Policy Review

ISA Topic	Key Messages from Review
Population and Equalities	▪ Transport is a key factor shaping experiences of poverty. The ability of households in poverty to find paid work often depends on access to affordable, regular and reliable transport; ▪ The delivery of new developments should not be of detriment to the interests of existing communities; ▪ There is a need to: – Reduce inequalities in care (both physical and mental) across and within communities; – Ensure fair and equal access to services and support irrespective of race, religion, sex, age, sexual orientation, disability, gender reassignment, marriage and civil partnership or pregnancy/maternity; – Plan for an aging population with complex needs, which will require inputs from all parts of the health and social care system; and – Ensure that there are appropriate facilities for people with disabilities and the elderly.
Economy	▪ The National Planning Policy Framework (NPPF)[10] states that planning policies should recognise and address the specific locational requirements of different sectors, which includes making provision for clusters or networks of knowledge and data-driven, high technology industries in suitably accessible locations; ▪ Working with businesses and infrastructure owners is necessary to develop proposals that meet the needs of the freight and logistics sector; ▪ Continued investment in the transport infrastructure is an essential part of post-pandemic economic recovery; ▪ There is a need to: – Promote a low carbon economy; – Support the sustainable growth and expansion of businesses particularly within the science, research and innovation sectors;

[10] Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf (Accessed 06/08/2021)

ISA Topic	Key Messages from Review
	– Ensure that housing growth requirements are accommodated in the most sustainable way, whilst also delivering a mix of high-quality housing of varying size and tenure to meet local needs; and ■ Deliver increased economic growth and decreased emissions.
Human Health & Wellbeing	■ Good placemaking is linked to a wider set of positive social, economic and environmental outcomes; ■ Twenty-minute neighbourhoods can provide an effective way to create healthy and active communities whilst improving equality, inclusion and help tackle climate change; ■ Regular physical activity provides a range of physical and mental health and social benefits; ■ The COVID-19 pandemic will have significant consequences for people's health outcomes in the short and longer term. There is a need to level-up in the wake of the pandemic in order to create a level playing field for both life and job opportunities; ■ Transport plays a key role in improving access to health services particularly for vulnerable groups; ■ There is a need to: – Promote healthy standards of living; – Prioritise walking, cycling and use of public transport; and – Enhance accessibility to key community facilities, services and jobs for all.
Community Safety	■ Safety is an important consideration for road users owing to the significant impact of serious and fatal accidents; ■ There is a need to: – Continue to improve safety by investing in the road network, both to prevent incidents from occurring and to reduce the severity of those that do; and – Reduce transport related crime and the fear of crime, as well as encourage reporting.
Biodiversity, Natural Capital and Ecosystem Services	■ Requirement for new developments to minimise adverse impacts on biodiversity and provide net gains in biodiversity where possible; ■ There is a need to:

ISA Topic	Key Messages from Review
	– Identify opportunities for green infrastructure provision, recognising the multiple functions that green infrastructure provides to the area and linking into regional and national green infrastructure networks; – Protect and enhance biodiversity, including designated sites, priority species, habitats and ecological networks; – Minimise the impact on biodiversity and ensure net gain wherever possible; – Maintain and enhance ecosystems and their services; and – Improve the long-term sustainability of ecological and physical processes that underpin the functioning of ecosystems.
Landscape and Townscape	▪ Landscapes and townscapes make up highly valued and widely appreciated aspects of the county's natural and cultural heritage that collectively make a significant contribution to Warwickshire's outcomes for the economy, health, place-making and sense of identity. ▪ The delivery of new developments should not have adverse impacts on the quality of the natural and built environment; ▪ There is a need to: – Protect and enhance the quality and distinctiveness of natural landscapes in ways that allow them to continue to evolve; – Provide greater access to greenspace, to help reconnect people to nature; and – Support high-quality design, taking into account the intrinsic and special value of its landscapes and townscapes.
Historic Environment	▪ The delivery of new developments should not have adverse impacts to the historic environment; ▪ There is a need to: – Conserve and enhance nationally and locally designated cultural and heritage assets, those which are non-designated as well as unidentified heritage assets and archaeological remains; – Seek opportunities to conserve heritage at risk; – Sustain and enhance the beauty of the natural scenery and improve its environmental value while being sensitive to considerations of its heritage; – Seek opportunities to draw on the contribution made by the historic environment to the character of a place; – Consider non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments; – Encourage engagement with the natural environment; and

ISA Topic	Key Messages from Review
	– Ensure that transport development adjacent, or in close proximity to the local conservation areas, designated assets, archaeological remains or listed buildings, respects their character and context, and does not detract from the quality of the built environment.
Water Environment	■ Water resources in the county are under increasing pressure from a rapidly growing population, climate change and environmental needs; ■ Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest flood risk; ■ Any 'essential infrastructure' proposed to be located in Flood Zone 3a or 3b should be designed and constructed to remain operational and safe for users in times of flood; ■ There is a need to: – Protect and enhance surface and groundwater quality and ensure that water quality is improved or maintained where possible; and – Avoid development in areas prone to flooding.
Air Quality, Climate Change and Greenhouse Gases	■ Take all possible action to mitigate climate change, while adapting to reduce its impact; ■ Avoid increased vulnerability to the range of impacts arising from climate change; ■ There is a need to: – Ensure that air quality is maintained (through net maintenance) or enhanced and that emissions of air pollutants are kept to a minimum; – Reduce emissions of greenhouse gases that may cause climate change; – Increase energy efficiency and move towards a low carbon economy; and – Support the transition to electric vehicles, especially in light of the ban on new petrol and diesel vehicles in the UK by 2030.
Soil, Land Use Resource and Waste	■ The delivery of new developments should not have adverse impacts on soils, land stability, or resources; ■ There is a need to:

ISA Topic	Key Messages from Review
	– Facilitate the sustainable use of minerals and minimise impacts on soil quality, considering any mitigation measures proposed; – Maintain and enhance geodiversity through the management of sites, areas and wider landscapes; and – Consider land stability in respect of new development; and encourage a circular economy.
Noise and Vibration	■ Development must be undertaken in accordance with statutory requirements for noise; and ■ There is a need to promote good health and a good quality of life through the effective management of noise within the context of UK Government policy on sustainable development.

4.2.5 Sustainability issues and opportunities of the plan have been identified following the review of plans, policies and programmes and the gathering of baseline information. **Table 4-2** below sets out the key sustainability issues and opportunities identified.

Table 4-2 – Sustainability Issues and Opportunities

ISA Topic	Key Sustainability Issues and Opportunities
Population and Equalities	■ Transport issues affect different groups to varying extents, and there is evidence to show that the barriers to accessing and using transport can be exacerbated by age, ethnicity and gender; ■ The rural nature of large parts of the county could pose significant challenges in providing good services for all residents. There will, therefore, be a need for increased access to transport; ■ The infrastructure and services in Warwickshire will need to accommodate the increasing and ageing population, particularly with 31% of people living in rural areas; ■ Changing work habits such as remote, internet-based jobs and working from home are likely to reduce transport demand, particularly after COVID-19, but may also increase social isolation, which could increase reliance on alternative social interaction; ■ There are opportunities to improve access to rural areas through transport services, digital services and by bringing services to people;

ISA Topic	Key Sustainability Issues and Opportunities
	▪ There will be a need for adequate support and greater access to services and facilities for the elderly population, families with young children and single parent families; and ▪ There were 3.5 million disabled people in work in 2017, with the UK Government aiming to increase this to 4.5 million by 2027[11]. Increasing and improving access to rural areas will enable more disabled people to access work, which will enable people to reach their potential and to achieve economic independence.
Economy and Employment	▪ If employment remains more concentrated in urban centres, this could put increased pressure on transport systems as commuting distances increase; ▪ If working populations continue to decline economic issues are likely to become more prominent in terms of supply of labour and reduced local economic activity levels; ▪ An ageing population is exerting pressure on the labour market; ▪ The impact of factors such as Brexit, Covid-19, new vehicle and energy technologies, disruptive digital technologies, changing working patterns and preferences and extreme climactic events will play a part in determining the types of transport investment which will most benefit the economy; ▪ Public transport will need to adapt to changes in commuting patterns as flexible working conditions are encouraged; and ▪ Improved connectivity between business clusters and housing markets (both planned and existing) in the county will improve access to the skills pool as well supporting improvements in productivity.
Human Health	▪ Warwickshire's population is ageing, therefore there will be a greater need for adequate access to public transport facilities;

[11] Department for Work and Pensions and Department of Health (2017) Improving Lives

The Future of Work, Health and Disability. Available online at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/663399/improving-lives-the-future-of-work-health-and-disability.PDF
(Accessed 01/07/2021)

ISA Topic	Key Sustainability Issues and Opportunities
	▪ As the population ages and the amount of people working from home increases, social isolation and loneliness and associated health impacts are likely to become more prevalent in Warwickshire; ▪ Health inequalities exist within the county - life expectancy is 6.6 years lower for men and 4.5 years lower for women in the most deprived areas of Warwickshire compared to the least deprived areas; ▪ Levels of obesity in adults is higher than the national average; ▪ There are disparities in health across the county; ▪ The transport plan should maximise opportunities to enhance walking and cycling routes and encourage the use of non-motorised forms of transport; ▪ There will be an ongoing need to provide inclusive services in order to meet the needs of older residents; and ▪ There will be a need to improve public transport users' confidence in returning to public transport post-COVID-19.
Community Safety	▪ Crime on public transport in the UK is on the rise, particularly with regards to sexual assault, violent crimes and disruption; ▪ Women often feel less safe on public transport than men, particularly after dark; ▪ Children in the 10% most deprived wards in England are four times more likely to be hit by a car than children in the 10% least deprived wards[12]; ▪ Vulnerable road uses such as cyclists and pedestrians are more likely to be casualties; and ▪ Young drivers and car passengers are more likely to be injured in a road accident than older car drivers and passengers[12]; ▪ There is a need to engage with communities and encourage the reporting of crimes as well as ensuring safety for all transport users;

[12] Department for Transport (2009) A Safer Way: Consultation on Making Britain's Roads the Safest in the World. Available online at: https://webarchive.nationalarchives.gov.uk/+/http:/www.dft.gov.uk/consultations/closed/roadsafetyconsultation/roadsafetyconsultation.pdf (Accessed 12/07/2021)

ISA Topic	Key Sustainability Issues and Opportunities
	▪ There are opportunities to introduce softer measures such as increase training and awareness and incorporation of safety by design measures; and ▪ There are opportunities to increase the safety of active transport modes, such as cycling or walking.
Biodiversity and Natural Capital	▪ There are a range of statutory local, national and international sites designated for nature conservation in Warwickshire, which may be affected by increased transport infrastructure development. Habitats and wildlife corridors outside of these protected areas are especially at risk of being lost, damaged or fragmented by transport development; ▪ New transport routes will need to be carefully planned so that they do not cause adverse effects on ecosystems with high (potential) ecosystem services provision; ▪ Given that ecosystem services are the benefits that nature provides to people, areas of high (potential) provision are often the green and blue spaces close to centres of population, as well as connecting habitats that link these with more remote designated habitats and landscapes; ▪ The LTP presents opportunities to be strategic in the enhancement of biodiversity at the landscape scale; ▪ The LTP presents opportunities to achieve biodiversity net gain (BNG) through the development of its policies and schemes; ▪ There is scope to encourage the redevelopment of existing assets as well as build new, to focus development away from areas of high biodiversity and ecosystem service provision, and to enhance the quality of the transport 'soft estate' alongside existing and new transport corridors in order to improve habitat connectivity; ▪ Enhancing the quality of transport 'soft estate' can also help improve the resilience of the transport network to future climate change (for example by reducing flood risk and providing shading and cooling benefits); ▪ Human health and quality of life can be improved by taking a natural capital approach to the LTP; and ▪ Mental wellbeing can be improved (reduced stress levels) by having views of vegetation from other modes of transport (e.g. along roads and railways). There is therefore an opportunity to enhance and improve vegetation alongside road and rail networks.
Landscape and Townscape	▪ Transport infrastructure has the potential to cause direct and indirect impacts on designated landscapes, eroding the character and quality of the landscapes, increasing pollution and eroding the visual amenity for residents and visitors alike;

ISA Topic	Key Sustainability Issues and Opportunities
	■ Future growth in some locations could risk compromising landscape and townscape character and features. However, a landscape-led design with green infrastructure principles in place could play a key role in the enhancement of the natural environment, visual amenity and physical and mental health of its people; ■ There is a need to protect locally valued tranquil areas and access to them as pressure for development grows; ■ The design of transport infrastructure requires a landscape-led approach to design, to ensure the best placement and integration of the proposed development into the existing landscape, especially in sensitive locations. Landscape-led designs can help contribute to the climate change agenda, health and wellbeing, and tackling pollution in all its forms (such as air, light and noise); ■ There is potential for transport to improve access to the countryside, to promote sustainable tourism and to provide greater awareness for the UK's Areas of Outstanding Natural Beauty (AONBs) and other designated areas; ■ Increasing access to the countryside, whilst increasing pressure on those resources, can greatly improve health and wellbeing, help combat air pollution, provide storm water management and reduce flooding (contributing to climate change adaption) and provide connectivity through urban built form to the countryside for wildlife. It can also bring new audiences to tourist attractions and enable better appreciation of historic landscape assets through creating new views and vistas, providing information and enhancing access; and ■ The incorporation of 'Future Ready' Landscape principles into landscape-led designs would help ensure transport infrastructure is designed for longevity in the 21st century, for both its people and its natural environment.

ISA Topic	Key Sustainability Issues and Opportunities
Historic Environment	■ The NPPF does address non-designated assets, unidentified heritage assets and archaeological remains and the direct physical impacts that occur on them. For archaeological resource, the impacts are permanent as they are destroyed; ■ New and/or upgraded transport infrastructure across Warwickshire has the potential to affect the survival, fabric, condition and setting of cultural heritage assets (both above and below ground) in addition to increased pressure from population growth; ■ There is potential for development to encroach on locally designated sites, unidentified heritage assets or areas of high archaeological value (particularly the Cotswold AONB) that do not have the same statutory protection as nationally listed sites; ■ Ancillary features of transport infrastructure can adversely impact upon the setting of heritage assets, especially those in urban areas; ■ Highly significant archaeological remains, whether designated or not, normally require preservation in situ. This clearly has implications and can represent a significant constraint to future scheme design, which should respect, retain and protect the remains (e.g. through avoidance and redesign); ■ Vehicle damage and pollution can adversely affect both listed buildings and scheduled monuments, so reducing vehicle movements within historic areas is also an important area to address; ■ The LTP presents opportunities for enhancing the understanding and appreciation of the significance of above and below ground heritage assets. This might be achieved for example, by reducing traffic volume, visibility and noise in the vicinity of a designated heritage asset and reducing existing detrimental effects on setting; ■ Asset enhancement has the potential to lead to an increase in tourism and associated revenue, and education opportunities associated with the Warwickshire's cultural heritage; and ■ There is potential for transport to improve access to heritage assets, landscapes and attractions.

ISA Topic	Key Sustainability Issues and Opportunities
Water Environment	▪ The physical and chemical quality of water resources is an important aspect of the natural environment and can be adversely affected by pollution associated with surface water runoff from new or existing transport infrastructure, as well as by changes to waterbodies which can affect their quality as a habitat; ▪ Of the 160 water bodies that sit inside the three river basin districts of Warwickshire (Humber, Severn and Thames), just two are achieving 'good' ecological status, falling far short of the WFD target; ▪ Upgrading existing infrastructure provides the opportunity to improve pollution control; ▪ Increased development (including transport infrastructure) can increase flood risk on a local and catchment scale; ▪ Climate change is likely to increase the occurrence of flooding and extreme weather events and hence raise the flood risk in Warwickshire and cause disruption and damage to property and transport networks; ▪ Upgrading existing infrastructure provides the opportunity to improve pollution control on older drainage systems; ▪ New transport infrastructure could result in improved drainage, reducing surface water flooding; and ▪ Maintaining or achieving a good standard of water quality and sufficient flows is a necessity when considering the potential impact of plans and projects on functionally linked watercourses. Longer term there should be an aspiration to restore connectivity by removing barriers and to improve the quality of our freshwater habitats.
Air Quality	▪ The number of vehicles on the roads is likely to increase as the population rises, putting air quality at further risk of degradation; ▪ More severe and frequent heat episodes as a result of climate change can contribute to the worsening of air quality; ▪ Whilst electric vehicles should have positive effects for air quality in terms of NO_2 reductions, there is concern that electric vehicles, which are currently heavier than 'conventional' vehicles, may generate more particulate (PM_{10}) pollution from brake and tyre wear; ▪ There is the potential that improved transport links will facilitate traffic flows, reduce idling times and thus improving air quality locally. However, an improved highway network could also result in increased usage, thus increasing emissions; ▪ The UK Government's plan to end the sale of all new conventional petrol and diesel cars and vans by 2030 and support for work and home-based electric charging facilities, will promote use of hybrid and electric vehicles, with positive effects for air quality; ▪ The UK Government's commitment to end diesel haulage on the rail network by 2040 and introduce at least 4,000 more zero emission buses;

ISA Topic	Key Sustainability Issues and Opportunities
	▪ Uptake of technological advances such as autonomous vehicles have the potential to further reduce emissions through reduction in the stop-start nature of traffic, opening up the possibility of vehicle platooning; ▪ Air quality issues across Warwickshire can be addressed via a modal shift towards less polluting methods of transport (low carbon transport initiatives) and inclusive of active transport (e.g. cycling, walking etc.) thereby leading to a higher standard of air quality; and ▪ Improved traffic management can decrease congestion having a beneficial effect on air quality. This is because "accelerating or decelerating too rapidly leads to inefficient driving and fuel consumption with harmful emissions being released into the environment unnecessarily"[13].
Climate Change and Greenhouse Gases	▪ The transport sector is the largest contributor to greenhouse gas emissions in the UK; ▪ In rural areas of Warwickshire, particularly, where there are limited local facilities and fewer public transport services, many people are reliant on private transport, use of which contributes to greenhouse gas emissions; ▪ There is a need to reduce the environmental impact of prosperity and the provision of infrastructure and housing to accommodate it, and the need to address the vulnerability of Warwickshire to ensure resilience; ▪ The extent of future climate change will be strongly affected by the amount of greenhouse gases that the population chooses to emit; ▪ There is a lack of baseline for the carbon emissions at a county level, which may make decarbonisation difficult to measure; ▪ There is a need to plan for and implement/ facilitate climate change adaptation, in respect of rising temperatures, water scarcity and extreme weather events, particularly heavy rainfall/ flooding; ▪ The LTP presents opportunities to facilitate active travel options, car sharing, car clubs and public transport as alternatives to continued personal car ownership and use; and

[13] National Institute for Health and Care Excellence (2016) Drive Smoothly to Reduce Harmful Effects of Air Pollution. Available online at: https://www.nice.org.uk/news/article/drive-smoothly-to-reduce-harmful-effects-of-air-pollution-says-nice (Accessed 15/07/2021)

ISA Topic	Key Sustainability Issues and Opportunities
	▪ There is a need to support the continued increase in infrastructure to support the demand in electric vehicles.
Soils, Resource and Waste	▪ It is important that any future development of the transport network across Warwickshire minimises the impact upon the degradation or sterilisation of the best and most versatile land, as this is important for the UK's self-sufficiency in food production; ▪ Minerals are a finite resource and materials will be required for any new transport infrastructure, with subsequent waste produced; ▪ There is currently a large reliance on road transport for importing and exporting minerals across the UK, which is unlikely to change; ▪ There is a need to avoid development on best and most versatile agricultural land; ▪ Resource efficiency is important in the reduction of waste and conservation of resources; ▪ The LTP could promote opportunities to support a circular economy; and ▪ Support the repurposing of existing infrastructure.
Noise and Vibration	▪ Increased transport development and infrastructure may adversely impact sensitive receptors and increase current noise levels in areas adjacent to roads and rail lines; ▪ Excessive noise exposure from transport can cause stress and sleep disturbance and is often perceived as a nuisance. This can result in adverse effects on human health; ▪ Transport noise can adversely affect biodiversity including nesting and feeding habits of many species; ▪ Increased noise exposure can also have negative impacts on designated sites including the Cotswolds AONB, and other designated sites with road or rail noise reducing amenity within these areas; ▪ There exists an opportunity to reforecast the understanding of transport noise profiles and exposure, accounting for the benefits from low-noise electrified road vehicles and reactions to climate change, to develop a plan that accounts for the future and realises benefits for Warwickshire; and ▪ Increased uptake of active travel for short journeys will therefore reduce car use and associated vehicle noise.

4.3 ISA APPRAISAL FRAMEWORK

4.3.1 The review of relevant plans, policies and programmes, collation of baseline information and identification of issues and opportunities, has been used to inform the ISA Appraisal Framework, which is set out in **Table 4-3** below.

4.3.2 Having considered the key sustainability issues, a series of sustainability objectives (ISA Objectives) have been identified and developed as part of the ISA Scoping Process, which form the framework against which the LTP4 objectives and implementation plans will be assessed.

4.3.3 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 ISA Objectives state what is needed, whilst indicators will measure LTP4's performance against the objectives.

4.3.4 Each ISA Objective is accompanied by supporting appraisal questions to help guide and inform the appraisal results.

Table 4-3 - ISA Appraisal Framework

ISA Topic	ISA Objective	ISA Supporting Appraisal Questions
Population and Equalities	**ISA1:** To increase the capacity, connectivity and efficiency of the transport network to support demographic changes, including improving access for all groups inclusively and reduce inequalities across the plan area.	Will the policy or proposal: ▪ Help to reduce inequalities, particularly for those people and communities most vulnerable? ▪ Improve access to transport for all inclusively? ▪ Provide better connectivity (particularly in rural areas) to facilities and services?
Economy and Employment	**ISA2:** To provide greater connectivity across Warwickshire to support greater access to employment, development in key sectors, attract inward investment and support economic growth.	Will the policy or proposal: ▪ Improve access to employment centres? ▪ Improve connectivity between business clusters and housing markets? ▪ Increase connectivity and help alleviate congestion, reducing journey times? ▪ Support flexible working patterns?
Human Health	**ISA3:** To protect and enhance both physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	Will the policy or proposal: ▪ Promote healthier lifestyles? ▪ Increase walking and cycling? ▪ Improve quality, quantity and equality of access to green and blue space and increase opportunities for recreation? ▪ Promote health enhancing environments, behaviours and activities for local communities? ▪ Help prevent risks to human health, which arise from the transport network (e.g., noise and air pollution)?

ISA Topic	ISA Objective	ISA Supporting Appraisal Questions
Community Safety	**ISA4:** To promote safe transport through reducing accidents, improving safety and reducing crime across the transport network.	Will the policy or proposal: ▪ Improve the safety of the transport system? ▪ Reduce the number of people killed or seriously injured on the roads? ▪ Ensure that all users feel safe, particularly after dark?
Biodiversity, Natural Capital and Ecosystem Services	**ISA5:** To protect and enhance protected habitats, species and valuable ecological networks that contribute to ecosystem functionality in Warwickshire, contributing to biodiversity net gain. **ISA6:** To maintain and enhance the provision of ecosystem services from the county's natural capital and contribute to biodiversity net gain. **ISA7**: To maintain and enhance existing green networks and improve habitat connectivity.	Will the policy or proposal: ▪ Cause damage to locally and nationally designated sites though infrastructure provision, traffic or maintenance? ▪ Maintain and enhance biodiversity in Warwickshire? ▪ Seek opportunities for biodiversity net gain? ▪ Enhances of increase provision of ecosystem services from the county's natural capital?
Landscape and Townscape	**ISA8:** To protect and enhance Warwickshire's townscapes and landscapes, including both the rural environment and town centres.	Will the policy or proposal: ▪ Improve the quality and condition of the landscape and townscape? ▪ Respect, maintain and strengthen local character and distinctiveness? ▪ Promote high quality design?
Historic Environment	**ISA9:** To conserve and enhance the historic environment, including heritage assets (designated and non-designated) and their unique settings.	Will the policy or proposal: ▪ Conserve and/or enhance heritage assets, their setting and the wider historic environment? ▪ Contribute to the better management of heritage assets and tackle heritage at risk?

ISA Topic	ISA Objective	ISA Supporting Appraisal Questions
		▪ Improve the quality and condition of the historic environment? ▪ Respect, maintain and strengthen local character and distinctiveness? ▪ Promote high quality design? ▪ Impact the historic environment through issues such as contamination, changes to the preservation conditions on a site etc? ▪ Impact the preservation of a waterlogged archaeological sites?
Water Environment	**ISA10:** To protect water quality and manage and reduce the risk of pollution from the transport network. **ISA11:** To reduce the risk and vulnerability to flooding.	Will the policy or proposal: ▪ Support the protection and enhancement of water bodies? ▪ Increase or decrease the risk of surface water flooding?
Air Quality	**ISA12:** To protect and enhance air quality by reducing transport related emissions.	Will the policy or proposal: ▪ Support measures to reduce levels of air pollution? ▪ Help to improve air quality? ▪ Support measures for the reduction of congestion and traffic levels particularly in AQMAs and congestion hot-spots?
Climate Change and Greenhouse Gases	**ISA13:** To reduce greenhouse gas emissions, support national and local decarbonisation initiatives and incorporate climate change adaptation to help maximise resilience.	Will the policy or proposal: ▪ Plan a transport system which is more resilient to cope with the impacts of climate change? ▪ Increase the resilience of people, infrastructure and the natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold?

ISA Topic	ISA Objective	ISA Supporting Appraisal Questions
		▪ Support the transition to net zero greenhouse gas emissions? ▪ Alleviate risk of flooding and support natural flood management?
Soil, Land Use, Resource and Waste	**ISA14:** To ensure the efficient use of land, promote sustainable use of resources and seek opportunities to promote a circular economy. **ISA15:** To protect Warwickshire's geological and agriculturally important land.	Will the policy or proposal: ▪ Reduce impacts from infrastructure development and maintenance on water, soil and mineral resources? ▪ Result in the loss of agriculturally important land? ▪ Result in substantial use of resource and generation of waste? ▪ Encourage the sustainable use of material assets and minimise waste? ▪ Promote a circular economy?
Noise and Vibration	**ISA16:** To reduce exposure to transport related noise and vibration, including noise pollution and nuisance.	Will the policy or proposal: ▪ Increase/ decrease levels of noise? ▪ Maintain levels of noise in NIAs

5 ASSESSMENT OF LTP DRAFT STRATEGY POLICIES

5.1 ISA ASSESSMENT OF DRAFT LTP STRATEGY POLICIES

5.1.1 This assessment of the Draft Local Plan policies is summarised below and presented in full in **Appendix A**.

5.1.2 A matrix approach (detailed in **Section 3.3**) has been used to assess the significance of overall strategies and individual policies.

5.1.3 The seven strategies assessed are:

- Core Strategy;
- Active Travel Strategy;
- Public Transport Strategy;
- Motor Vehicles Strategy;
- Managing Space Strategy;
- Safer Travel Strategy; and
- Freight Strategy.

5.1.4 Within these overall strategies, 35 policies have been individually assessed.

5.1.5 **Table 6-1** overleaf provides an overview on the performance of the Draft LTP4 overall strategies against each ISA objective.

Table 5-1 – Strategy Assessment Overview

Strategy	ISA1: Equality and Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
Core Strategy	+	+	+	+	?	?	?	+/-	+/-	?	?	+	+	?	?	+/-
Active Travel Strategy	+	+	+	+/-	?	?	?	+	+	0	0	+	+	0	0	+
Public Transport Strategy	++	++	+	+	0	0	0	+	+	?	0	+	+	0	0	+
Motor Vehicles Strategy	+	+	+	+	+/-	+/-	+/-	+/-	+/-	+/-	-	+/-	-	+/-	+/-	+/-
Managing Space Strategy	+	+	+	+	+/-	+/-	+/-	+/-	+/-	+/-	?	+	+	+	+	+
Safer Travel Strategy	+	+	0	++	+	0	0	0	0	0	0	0	0	0	0	0
Freight Strategy	0	++	+	+	-	-	-	+/-	+/-	-	-	-	-	-	-	+/-

ASSESSMENT SUMMARY

5.1.6 In general, LTP4 policies have performed well against most ISA objectives, with no significant negative effects being identified. All policies have resulted in positive effects on social and economic objectives (population and equalities, economy, health and wellbeing and community safety). This is mainly due to the emphasis the LTP4 places on increasing connectivity and accessibility, improving safety and supporting a modal shift away from private car use and towards active travel.

5.1.7 Some uncertain effects were identified for biodiversity (ISA5), natural capital (ISA6) and ecosystem services (ISA7), water (ISA10), flood risk (ISA11), land use resource and waste (ISA14) and soils (ISA15). These have generally been recorded due to the uncertainties surrounding location and scale of interventions that may be required to implement LTP4.

5.1.8 **Appendix A** contains the full assessment of LTP4's strategies and policies. **Table 5.2** below summarises the effects on each of the ISA objectives.

Table 5-2 - Draft LTP4 Plan Assessment Summary

ISA Objective	Summary of Effects
ISA1: Equality and Inclusion	Policies and strategies have either resulted in minor or significant positive effects on ISA1. The majority of policies will help to provide a more reliable and accessible transport network which will enable greater connectivity to jobs, services, healthcare, education and recreation. Policies aim to create an inclusive network for all users. LTP4 acknowledges the future demographic changes in the county (particularly with regards to an ageing population) and notes the challenges faced by those with disabilities and their dependence upon the public transport network. LTP4 also focuses on improving rural connectivity within the public transport network and aims to help rebuild confidence in public transport network, particularly through PT1 and PT3, which will help the county to encourage public transport use through improved connectivity and ticket improvements.
ISA2: Economy	Policies and strategies have mainly resulted in minor positive effects, with some significant positive effects anticipated. LTP4 includes policies to improve the connectivity across Warwickshire and beyond, through road, public transport and active transport developments. This will provide greater access for business, employment, and tourism. Economic benefits will also arise from improvements to the freight network, as this contributes to building Warwickshire's economy, and links with the wider economy which will help to ensure a strong and sustainable economy.
ISA3: Health	Policies and strategies have mainly resulted in mostly minor positive or negligible effects. LTP4 policies (particularly policies included within the active travel and public transport strategies) include plans for sustainable and active travel, which is likely to improve access for all groups inclusively and help support more active lifestyle. Provision of sustainable travel options between rural areas of Warwickshire to urban centres will reduce severance, improve accessibility to jobs, services, healthcare and amenities and will open up access to the countryside. The LTP also helps to reduce the impact of the transport network on human health through improvements in air quality. The LTP4 recognises the importance of improving air quality in relation to human health.
ISA4: Safety	Policies and strategies have resulted in minor positive, mixed positive and negative and significant positive effects on ISA4. Policies within the Safer Travel strategy, and policies F6 and F7, aim to improve the safety of the road network and reduce the number of people killed or seriously injured on the roads, whilst policy F3 promotes the improvement in safety of lorry parking facilities, improving safety. Other indirect positive effects have been identified. The LTP will introduce policies that will ensure the maintenance of roads and encourages behavioural changes. Similarly, increased rural connectivity and access to active travel as a result of the LTP will also work to increase the safety of the transport network.

ISA Objective	Summary of Effects
	The vision of reduced number of cars on the roads contributes to helping to reduce the number of accidents and improve the safety of the transport network. However, freight policies and some elements of the motor vehicle strategy are likely to increase the number of HGVs on Warwickshire's roads, raising safety risks.
ISA5: Biodiversity **ISA6:** Natura Capital **ISA7**: Ecosystem Services	Policies and strategies have resulted in uncertain, negligible mixed positive and negative and negative effects on biodiversity, natural capital and ecosystem services. Policies that encourage sustainable transport modes are likely to help decrease air quality emissions which may indirectly benefit the biodiversity in Warwickshire. Greater uptake in sustainable transport modes may also reduce the number of single occupancy journeys which could lessen the impact of disturbance on habitats and species. However, the majority of policies and associated interventions could result in the disturbance and loss of biodiversity as part of their construction and operation where physical interventions are required (particularly the motor vehicle and freight strategies). If not carefully aligned interventions could sever green infrastructure networks, degrade or isolate ecosystem services and adversely affect biodiversity through habitat destruction and increased noise and air pollution levels.
ISA8: Landscape and Townscape	Policies and strategies have predominantly resulted in effects that are either both positive and negative, minor positive, or minor negative. Some LTP4 policies could require significant road, rail or freight infrastructure which could significantly alter the landscape and townscape in certain locations. In addition, large numbers of concurrent smaller scale interventions could have similar effects, particularly during construction on townscape. However, increased connectivity across Warwickshire will enable greater and more tranquil access the county's unique landscapes, which could present opportunities to generate activity and vitality and help define the character of development distinctive to the surrounding areas. Effects on landscape and townscape will, therefore, be highly dependent upon the type and location of interventions that come forward as a result of LTP4, especially in relation to potential changes in noise that may contribute to improving or degrading tranquillity and setting.
ISA9: Historic Environment	Policies and strategies have predominantly resulted in effects that are either both positive and negative, minor positive, or negligible. Some LTP4 policies could require transport infrastructure and associated components such as street fixtures, lighting, furniture, signage, and maintenance equipment, can have a major visual impact, which has the potential to erode the character and the setting of heritage assets. Increasing the efficiency of the transport network, particularly through new route developments, may result in a negative impact on heritage assets may also impact on buried archaeology, historic landscapes and a potential impact on the setting of other historic assets such as scheduled monuments, listed buildings, historic parks and gardens, conservation areas and undesignated assets.

ISA Objective	Summary of Effects
	Effects on the historic environment will therefore be highly dependent upon the types of interventions that come forward as a result of LTP4.
ISA10: Water Quality	LTP4 policies and strategies result in predominantly uncertain, mixed positive and negative, negative or negligible effects on water quality in the county. Policies with the potential for construction works of new highways, rail services and stations, and other improvements, may negatively impact water quality through construction increasing mobility of pollutants and affected water quality and altering hydrology and geomorphology of watercourses if infrastructure in watercourses is required. Many policies focused on intra-town connectivity are likely to have negligible effects on watercourses so negative effects are mostly concerned with rural set interventions or those towns with watercourses intersecting them. As with other ISA objectives, the effects will be highly dependent on the location of interventions that come forward as a result of LTP4 implementation.
ISA11: Flood Risk	Policies and strategies have generally resulted in negligible, uncertain, or minor negative effects upon flooding. The majority of uncertainty comes from not knowing the extent or type of interventions to be implemented. Any intervention that increases impermeable surface areas in the county will contribute to increased flood risk and subsequently result in negative effects. Where clarity on the type of intervention is more certain (such as in the motor vehicle strategy) more negative effects can be observed.
ISA12: Air Quality	Policies and strategies have resulted in either minor positive, mixed positive and negative, negligible, or minor negative effects upon air quality. This range of effects represents the diversity of likely interventions associated with different policies. Active travel, Public Transport and Managing Space strategies will encourage a modal shift away from private car use, reducing the number of vehicles on Warwickshire's roads, improving air quality. However, other policies indicate a likely increase in construction of infrastructure and numbers of road-based vehicles, leading to a degradation of air quality. LTP4 focuses on a core shift away from private car use, contributing to the improvement of air quality in the county. Most of the policies within LTP4 are likely to reduce the number of vehicles on roads and thus lower transport related emissions, protecting the air quality in Warwickshire. Improvements in rural connectivity and accommodation of new developments through road building will result in potential negative effects upon air quality; however, LTP4 has a focus on improving accessibility to mobility hubs to support a modal shift and bringing further services and facilities directly to rural communities. This will help to reduce the need to travel and to reduce levels of air pollution, greenhouse gas emissions and noise pollution from the transport network. However, local road improvements could help to support a continued reliance upon private vehicles. The effects on these objectives will be dependent upon the number and scale of developments. If more sustainable solutions are favoured over highway improvements, there is potential for overall positive effects on air quality.

ISA Objective	Summary of Effects
ISA13: Climate Change and GHGs	Policies and strategies within LTP4 result in significant positive, minor positive, minor negative, and negligible effects on climate change and GHGs. The climate generally negatively effects the operation of the transport system. With future trends on climate change predicting more extreme climatic conditions, it is likely that there will be more significant effects in the future unless designed for and managed properly. Therefore, future proofing the network as part of LTP4 is likely to ensure the transport network will be resilient to future climate changes. Policies throughout the LTP, particularly Active Travel, Public Transport and Managing Space policies, work towards a more resilient transport network in the future, through decarbonisation of road-based transport and increasing the resistance of the transport infrastructure to climate change impacts. However, strategies such as Freight and Motor Vehicles encourage the continued use of motor vehicles, contributing to worsening GHG emissions.
ISA14: Land Use and Waste	Policies and strategies of LTP4 have been found to have uncertain, negligible, mixed positive and negative, and minor negative effects on the efficient use of land. New infrastructure development can be resource intensive which could have a negative impact on land and resources in Warwickshire. Despite possible negative effects, the Managing Space strategy policies could help to reduce negative impacts through the use of brownfield sites or previously developed land and avoid encroachment on valuable areas of land. Some uncertainty remains on the scale and extent of likely interventions in some cases, and the effects on land use that will bring. The transition towards a more sustainable transport network, with increased connectivity, could be resource intensive, however, the use of sustainable materials during maintenance and construction and sourcing them using a circular economy, will help to reduce this negative impact on resources.
ISA15: Soils	Policies and strategies within LTP4 result in uncertain, negligible, mixed positive and negative, and minor negative effects on Warwickshire's land. There may be a negative effects upon Warwickshire's agriculturally important land, as new infrastructure developments can be resource intensive which could require large land take and could result in the loss of the some of the best and most versatile land. Particular areas of concern arise in the motor vehicle and freight strategies, where policies indicate potentially extensive infrastructure (road) interventions taking place in previously undeveloped areas.
ISA16: Noise and Vibration	The effects upon noise from LTP4 policies and strategies are positive, negligible, and mixed positive and negative. As with other ISA objectives, this range of effects reflects the diversity of policies and likely interventions associated with them. The delivery of improved public transport and local walking and cycling networks, will have positive effects on noise across Warwickshire, particularly along heavily congested routes. The model shift to more active travel modes will likely reduce levels of congestion through less vehicles on the road and subsequently improve noise. Improving accessibility to mobility hubs will help support this modal shift and bringing further services and facilities directly to rural communities will help to reduce the need to travel.

ISA Objective	Summary of Effects
	However, the potential for new developments may result in increased noise pollution, particularly during the construction phase. Additionally, the increased connectivity proposed within all strategies may result in increased noise pollution in rural areas, and areas with existing low levels of noise. Lastly, local road improvements could help to support a continue reliance upon private vehicles. The effects on noise will be dependent upon the number and scale of developments.

FINDINGS OF OTHER ASSESSMENTS

EQIA

5.1.9 The EqIA (**Appendix B**) identified that the majority of policies included within the strategies are likely to be beneficial to all or the majority of users of the transport network, including those falling under protected characteristic groups.

5.1.10 A large number of actions will bring about benefits to air quality and active travel, which will subsequently result in improved physical and mental health of users of the transport networks along with other associated benefits, for which users in protected user groups will be particularly sensitive to.

5.1.11 The main protected characteristic groups that will particularly benefit include:

- Age – older people who have reduced mobility and require access to health and other services. Also children who are likely to benefit from air quality improvements that numerous policies look to achieve;
- Disability – people with a variety of disabilities will benefit from a more accessible environment; and
- Deprivation – people from low-incomes who require access to employment, education and housing and people with underlying health issues.

5.1.12 Key areas where further consideration of protected characteristic groups may be needed include:

- Parking provision;
- Implementation of digital services and technology;
- Development and implementation of active travel schemes, including walking and cycling infrastructure and implementation of schemes such as electric bikes and e-scooters; and
- Development and improvement to public transport provision, including the bus and rail network.

5.1.13 A large number of actions will benefit from input from relevant, representative stakeholders during development and implementation of interventions. It is recommended that proportionate, meaningful and inclusive consultation is undertaken to identify potential impacts and maximise opportunities where there is potential for disproportionate impacts that are not understood.

HIA

5.1.14 An assessment of health, population, environment and deprivation was undertaken for the strategic policies. The policies were assessed against the following determinants of health:

- Air Quality;
- Noise;
- Economy and employment;
- Access to services;
- Physical activity; and
- Road Safety.

5.1.15 As part of the assessment the following vulnerable groups were also identified:

- Children and young people;
- Older people;

- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

5.1.16 The HIA assessment (**Appendix C**) identified that LTP4 strategies generally result in positive effects upon health determinants due to the encouragement of sustainable and active transport modes and subsequent improvements to air quality and physical activity. Improving connectivity between rural areas and urban centres is also likely to result in positive health outcomes, through the reduction in severance, improved accessibility to jobs, services, healthcare, amenities and the environment.

5.1.17 Although predominantly positive, elements of the Motor Vehicle, Freight and Managing Space Strategies , could result in negative outcomes on health, particularly for air quality, noise and road safety, due a potential increase in the number of vehicles on the road.

5.1.18 With regards to vulnerable groups, those positive effects identified above are generally likely to benefit older people (65+), children and young people (0-16 years), low income and socially isolated groups, whilst the negative effects are most likely to affect older people (aged 75+) and those with existing health conditions.

HRA

5.1.19 The first stage of the HRA – Screening – is currently being undertaken in order to identify likely significant effects on European Sites, as required by the legislation. Whilst feeding into the ISA process (specifically the 'biodiversity' topic), the HRA Screening has been undertaken as a standalone assessment.

5.1.20 As work is still ongoing, the full findings of the HRA aren't currently available at the time of reporting. The post consultation version of the ISA Report will therefore incorporate the HRA findings (in respect to biodiversity, ecosystem services and natural capital).

6 ASSESSMENT OF ALTERNATIVES

6.1.1 The SEA Regulations require an assessment of the plan and its “reasonable alternatives”. Specific alternative policies were not identified during the LTP4 policy generation process, therefore, for the basis of this assessment, the continuation of the existing LTP3 policies has been assess as a ‘do nothing’ scenario.

6.1.2 The assessment of alternatives has highlighted that the current LTP3 is outdated, and no longer reflect global issues such as climate change and Covid-19. Therefore, these policies are not fit for purpose.

The full detailed assessment can be found in **Table 6-1** below

Table 6-1 - Assessment of Alternatives - continuation of LTP3 'do nothing' scenario

ISA Objective	Summary of Effects	Significance
ISA1: Equality and Inclusion	Warwickshire's LTP3 policies will continue in their addressal of current and future connectivity and efficiency issues of the transport network. A key part of LTP3 was work proposed to improve connectivity by public transport to edge of centre or out of town destinations through improving buses (including new buses and increased service frequency), improved passenger information before and during travel, new rail stations, and improved public transport interchange. Similarly, another priority of LTP3 was for the County Council to continue to identify efficiency gains where appropriate. An example of where this was to be realised was in Stratford, where improvements to overall efficiency of bus service schedules on Stratford town routes were proposed to make services more attractive to potential users. The LTP also acknowledges the presence of growing, ageing and rural populations and the difficulties each will bring to the county. An ageing population is well addressed in LTP3, with the primary aim of ensuring people can remain independent for as long as possible. This was to be done by improving buses, concessionary fare schemes, and better integration of transport to reduce the need to travel. Rural communities, who face significant accessibility barriers are also accounted for through improved connectivity, ensuring they have access to essential services like healthcare, employment and education. However, despite LTP3's recognition of a growing population, policies regarding capacity do not reflect this, and will likely not be robust enough as a result to support projected population growth in Warwickshire of 19.8% by 2043. Due to the historic nature of the road network in Warwick, Leamington Spa and Kenilworth, there is little scope to significantly improve the highway capacity within the urban area. Limited increases in highway capacity mean priority will be given to work on congestion mitigation, and not to enabling greater capacity of the transport network overall. Accessibility and inclusion are well addressed within LTP3, with one of its six overall objective being to promote greater equality of opportunity for all citizens in order to promote a fairer, more inclusive society. The recognition that vulnerable groups experience difficulties accessing transport as well as the existence of inequalities of both opportunity and aspiration among communities allow for the prioritisation of these objectives within planning. The County Council, in its role as Highway Authority, will aim to ensure that new developments support and encourage walking in terms of accessibility, design and layout and that they improve connectivity with new footways where required, and will help to narrow the gaps between economic growth rates for different areas by ensuring that transport does not act as a barrier to opportunity. Finally, LTP3 is outdated does not address the current feelings that some users may have post Covid-19, whereby they no longer feel comfortable or safe using public transport, especially vulnerable groups who may be unable to utilise public transport at this time.	+/-

ISA Objective	Summary of Effects	Significance
ISA2: Economy	LTP3 is still relevant to the improvement of connectivity across Warwickshire in order to support greater access to employment. The continued connectivity improvements through better buses (including new buses and increased service frequency), improved passenger information before and during travel such as bus information points to improve connectivity, new rail stations, improved public transport interchange will increase Warwickshire's residents' access to employment. Improved connectivity will also provide greater access to education which may also help bridge the skills gap in the county, resulting in a higher proportion of skilled workers in high wage industries, supporting the growth of their already present and diverse knowledge sectors. The county recognises their significant success in attracting inward investment, as well as the need to continue their growth of innovation and creative businesses in order to remain competitive within the global economy. A strategy for inward investment will be informed by the Town Centre Plan. Beyond their strong presence of knowledge intensive sectors, the immediate hinterland of the two main towns is predominantly made up of high-quality agricultural land contains approximately 500 farms and smallholdings, which emphasises the important role of agriculture to the local economy. However, with policies CS1, CS2, and HM7 setting out the possibility of newly constructed roads without a proposed location, there is potential for the loss of important agricultural land, a major economic asset in Warwickshire. LTP3 does not tackle any degree of investment to improve broadband infrastructure across the county, meaning it is not fit to account for the new shift towards working from home brought about by the Covid-19 pandemic. A lack of digital inclusion will disadvantage peoples access to employment under current circumstances, as well as opportunities for businesses to grow, however this is not significant enough to negate improvements made by LTP3.	+
ISA3: Health	LTP3 was informed by Warwickshire's Sustainable Community Strategy 2009-2026 which outlines a vision to maintain and enhance the health of those within the community. LTP3's role in delivering this outcome is clearly set out to be the promotion of physical activity and healthier lifestyles. The recognition of both the challenges of modern-day life (sedentary lifestyles, car use) and the problems they incur (increased prevalence of medical conditions such as obesity and heart disease) allows for the LTP to encourage active travel as an easy and beneficial mode for people to incorporate into their everyday lives in order to pursue healthier lifestyles. The LTP sets out to achieve this by making active travel easier and more attractive through infrastructural improvement, as well as addressing perceptions of key barriers to active travel like safety and convenience. Equally, LTP3's mission to transition to more sustainable modes of transport (including public transport) will also work to improve the overall health of the area by reducing noise pollution and improving air quality, both of which will have beneficial effects to the health and wellbeing of the population in Warwickshire.	-

ISA Objective	Summary of Effects	Significance
	While there is a recognition that active travel can improve mental wellbeing, there is no specific action to actively uphold this, and more could be done within the LTP3 to allow for the beneficial effects of active travel on mental health. Especially in the current wake of the Covid-19 pandemic, more people are finding comfort in connecting with outdoor spaces, and so greater emphasis should be placed on the importance of maintaining and enhancing this link. The current LTP3 is therefore insufficient to meet the needs of Warwickshire's changing behaviours when it comes to active travel and public transport.	
ISA4: Safety	The position of the County at the centre of England and the motorway network means that it has a high traffic volume and, consequently, a high number of casualties per head of population, and as such, safety is a key priority of LTP3. LTP3 recognises challenges regarding safety among the National Transport Goals, such as risk of death or injury due to accidents on the transport network, and therefore has formed its own local objectives in line with this. Under the objective, road safety improvements include speed reduction, engineering measures at casualty hotspots, safer routes to Schools and pedestrian crossings, education & promotional campaigns for road safety and better integration between transport and land use planning. Perceived safety is also a barrier to active travel and public transport for many. This will be addressed by the LTP through improved waiting and interchange facilities and enhanced staff presence. Although crime is low in Warwickshire, with levels below the national average, there are also interventions in place to address both crime and the perceived risk of it by working in partnership with police to address anti-social behaviour on transport networks and improving the security of public transport users using CCTV.	+
ISA5: Biodiversity **ISA6:** Natura Capital	Any new developments that may come forward have the potential to negatively impact habitats, species and natural capital through land take and both construction and operational disturbance, particularly through noise. The location of any potential development may occur in areas of high ecological value, where current levels of noise pollution is low and air quality is good. Upon analysis of current and future trends, it is clear that tLTP3 has failed to combat declining biodiversity in Warwickshire, as has been the national trend. This is particularly apparent by the net increase in private fossil fuel vehicles throughout Warwickshire. Biodiversity and natural capital is under threat from climate change, with changing temperatures and extreme weather events resulting in the loss, degradation and movement of species and habitats. The absence of a climate	-

ISA Objective	Summary of Effects	Significance
ISA7: Ecosystem Services	change policy within LTP3 means that climate change could continue to present a risk to biodiversity and natural capital. The LTP3 does also not address the need for protection of the natural environment, habitats or biodiversity net gain. Since the publication of the LTP3, the 25 Year Environment Plan (2018) has been published, which outlines the Government's ambition to leave our environment in a better state than we found it and the steps proposed to take to achieve that ambition. It is clear that the LTP3 is outdated and may not support the national agenda of environmental and biodiversity net gain.	
ISA8: Landscape and Townscape	As part of Goal 3 of the LTP the protection of Warwickshire's landscape, particularly its rural landscape, against the negative effects of traffic is outlined. Encouragement of alternative transport modes will aid in reducing traffic and therefore reducing the effects of noise and vibration on landscapes. However, new development and improving connectivity to rural areas may affect the tranquillity and setting due to the increased traffic, construction and operation phase disturbance (light, noise, and air pollution), and visitor pressure. Development may also require land take which could result in negative effects on the county's landscape. The LTP3 does not include a policy on the protection of the county's valuable townscapes and landscapes, therefore, it is unlikely that development will take potential negative effects into consideration. Without the support of the LTP, development could be insensitively designed, and a large amount of land could be taken leading to the degradation of landscape and townscape. Climate change will continue to put pressure on the Cotswolds AONB as new pests and diseases emerge and extreme weather increases stresses on nature conservation. LTP3 does acknowledge climate change policy (objective 6 and Goal 2), however this is no longer fit for purpose, and policy does not directly address climate change effects to the transportation network in Warwickshire. Therefore, climate change could continue to present a risk to the Cotswolds AONB as well as other valuable landscapes in Warwickshire.	?
ISA9: Historic Environment	Warwickshire has a rich cultural heritage, with both Warwick and Stratford-upon-Avon in particular containing a high concentration of Listed Buildings and Conservation Areas. The highly valuable cultural and historical environment in Warwickshire gives way to the importance of its conservation and enhancement. The transition to sustainable transport modes as part of LTP3 will help to reduce emissions and the number of vehicles on the road which will result in improving the air quality and noise pollution. As air pollution is a key factor in the degradation of surfaces of historical buildings and monuments, action to improve air quality has the potential to indirectly benefit the historic environment. The reduction in noise pollution will also help to improve tranquillity and unique setting of the heritage assets.	?

ISA Objective	Summary of Effects	Significance
	However, LTP3's only policy dedicated to the conservation of heritage assets is to ensure works are undertaken to conserve particular bridges which form a vital part of the county's cultural heritage, unless such works would be prohibitively expensive or impractical. As this policy is not inclusive of Warwickshire's many heritage assets, nor does it promote the enhancement of the assets it refers to (only their conservation) LTP3 is unlikely to continue to be fit for purpose. Without the support of the LTP, it is the case that development could be insensitively designed leading to the degradation of historic environment.	
ISA10: Water Quality	The transition to sustainable transport modes as part of LTP3 will help to reduce the number of vehicles using the transport network. This will help to reduce the concentration of pollutants from vehicles that can have detrimental impact on water quality, such as heavy metals and oils from combustion engines, going into nearby waterbodies. However, new transport infrastructure may have a negative impact on water quality due to associated pollutants during both construction and operational phases. These can include sediments, road salts, fertilisers and pesticides.	--
ISA11: Flood Risk	Due to the topography of Warwickshire many areas are susceptible to flooding, with the latest widespread flooding in Warwickshire occurring in Summer 2007 (June and July). The floods impacted on more than 75 communities in Warwickshire with over 2000 properties affected by the flood water. This risk is only going to increase with climate change, particularly with the increases and changes to rainfall patterns. The current LTP3 does consider the risk of flooding on additional transport infrastructure, with an initial Strategic Flood Risk Assessment taking place in 2008, producing county wide flood maps as a result. It also considers the heightened flood risk as a result of climate change within its climate change adaptation policies, but with little implementation to mitigate this. Consequently, it can be considered that the LTP is unlikely to continue to be fit for purpose under our changing climate.	
ISA12: Air Quality	Air quality is identified as a key issue to society within LTP3, effecting both the environment and human health. In Warwickshire the air quality is generally good, with localised hot spots for air quality problems being caused by road transport. In these locations, measures to ease congestion such as the improvement of junctions will mitigate any negative effects on air quality. More generally, most of the policies in LTP3 which encourage or improve public transport and active transport modes will have a positive effect on the air quality in Warwickshire. The increased use of public transport, walking and cycling will help to reduce the number of vehicles on the road, in particular the number of private cars, resulting in a reduction in emissions and therefore, an improvement on the air quality. There are also specific policies (AQA1-AQA6) targeted directly at improving and maintaining areas of good air quality. However, LTP3 has failed to reduce the number of vehicles on Warwickshire's roads, contributing to reductions in air quality.	-

ISA Objective	Summary of Effects	Significance
ISA13: Climate Change and GHGs	An additional objective to the five overarching objectives identified for improvements to transport in the Warwickshire was to reduce transport's emissions of carbon dioxide and other greenhouse gases and address the need to adapt to climate change. Most of the policies in LTP3 that encourage or improve sustainable and active transport modes and support will work to realise this objective and help to reduce greenhouse gas emissions. However, LTP3 has failed to see a tangible reduction in private vehicle use, contributing to increasing emissions and failing to reduce emissions as necessary to decarbonise Warwickshire's network. The LTP also states its prioritisation of the national transport goal 'Tackling climate change' at a local level, and alongside its recognition of government GHG reduction targets and the size of the transport sector's role in this (21%) the LTP is well geared towards supporting national decarbonisation initiatives. However, the national decarbonisation initiatives LTP3 is geared towards supporting are now outdated. The UK Government committed itself to reducing carbon dioxide emissions by 20% below 1990 levels by 2010, and to cut overall greenhouse gas emissions by 12.5% below 1990 levels by 2008 – 2012, but recently a more ambitious target has been set by the UK in 2020 to achieve carbon net zero by 2050 (a target never set out by the government at the time of LTP3's publication.) As the urgency with which we need to act regarding climate change has been revised since the publication of LTP3, it is now no longer relevant to be able to inform GHG reduction action.	--
ISA14: Land Use and Waste	Developments to the transport network which may come forward as a result of LPT3 such as new roads, rail stations and interchanges all have the potential to be resource intensive and result in large amounts of land take. Since the adoption of LTP3, there has been more of a drive towards efficient use of resources and supporting a circular economy, as encouraged through the publication of the Clean Growth Strategy and the 25 Year Environment Plan. This may mean that the potential for intensive land use as a result of LTP3 may no longer be up to date with current standards surrounding the use of environmental resources. Despite this the LTP does state intentions for any new land use to be efficient and better integrated with transport options to reduce the need to travel, as well as considering accessibility when revising land use planning and the location of new services.	-
ISA15: Soils	Developments to the transport network which may come forward as a result of LPT3 such as new roads, rail stations and interchanges all have the potential to negatively impact Warwickshire's agriculturally and geologically important land through land take, sterilisation, contamination and disturbance during both construction and operational phases. These developments could result in the loss of the county's best and most versatile land. There are no specific objectives targeting the protection of geological and agriculturally important land in place to mitigate this, which could ultimately lead to their degradation should the proposed developments to the transport network go ahead.	

ISA Objective	Summary of Effects	Significance
ISA16: Noise and Vibration	LTP3 relates challenges facing quality of life with the intrusive effects of transport, such as noise and vibration from high volumes of traffic. The policies within LTP3 that encourage or improve sustainable and active transport modes will in turn help to reduce noise pollution. LTP3 does, however, support a number of schemes to increase the number and frequency of public transport vehicles like buses and trains, which will ultimately contribute to noise pollution through both construction and operational phases. Additionally, LTP3 does not address the current and future changes in to the transport network in Warwickshire, for example through increasing numbers of private vehicles. The future changes to Warwickshire's population are likely to contribute to increases in noise pollution, which the LTP3 does not address.	-

7 ASSESSMENT OF CUMULATIVE EFFECTS

7.1.1 The SEA Regulations require that cumulative effects are considered when identifying likely significant effects.

7.1.2 Cumulative effects arise, for instance:

- Where several individual policies have a combined effect on an objective; or
- Where several plans each have insignificant effects but together have a significant effect.

7.1.3 A review of plans and policies identified a number of plans for cumulative effects assessment, in addition to cumulative effects within the Transport Plan. This is set out in **Table 7-1** below.

7.1.4 It should be noted that this list is not exhaustive and cumulative effects arising from individual projects and plans should be revisited as part of a project level assessment. For example, noise, dust and visual have a combined effect which can only be determined at the project level. In addition, current events are leading to rapid short-term changes in the transport sector, as well as creating greater uncertainty about future transport approaches in the medium to longer term (post 2022).

Table 7-1 - Cumulative effects

Policies, Plans and Schemes	Potential Source of Cumulative Effects
Warwickshire County Council LTP4	There is potential for cumulative regional impacts on all topics from development of multiple corridors. The nature and extent of the effects will depend on final schemes selected but, in particular, there is potential for cumulative effects from multiple new road or rail developments.
Neighbouring Local Transport Plans	Local Transport Plans in neighbouring counties (Leicestershire, Staffordshire, Worcestershire, Northamptonshire, Gloucestershire and Oxfordshire) influence cross-boundary transport improvements and major road networks. These developments have potential cumulative effects on noise, biodiversity, cultural heritage, landscape and townscape and soils, water resources and flooding in Warwickshire.
Local Plans – ▪ North Warwickshire Local Plan 2014 ▪ Rugby Borough Council Local Plan 2011-2031 ▪ Warwick District Council Local Plan 2011-2019	Warwickshire has local plans for various areas within the county. Local plans are prepared by the Local Planning Authority and provide a vision for the future of each area and a framework for addressing housing needs and other economic, social and environmental priorities. Allocations for economic and residential development are likely to stimulate transport demand and furthermore improvements in economic transport corridors are likely to stimulate development. There is potential from local plans to influence all topics, particularly with positive impacts on economy and potential negative cumulative impacts on biodiversity. Sustainability assessment undertaken for Local Plans have similar topics to those listed for this ISA and identify potential for significant effects.

Policies, Plans and Schemes	Potential Source of Cumulative Effects
▪ Midlands Engine Rail	Midlands Engine Rail combines seven of Midlands Connect's rail projects under one banner, with the overall plan for a more sustainable, productive and mobile Midlands. Midlands Engine Rail includes: • 736 extra passenger services a day; • 60 stations in the Midlands to benefit from faster, more frequent and/or new direct services; • 72 more freight trains per day; and • Fully integrated with High Speed Two. The delivery of Midlands Engine Rail is likely to have cumulative impacts on all topics. There is the potential for the project to have both positive and negative cumulative impacts on noise, air quality, health, noise and vibration, climate change, greenhouse gases, the water environment, the historic environment and landscape and townscape. It is likely to have positive cumulative effects on the regional economy and equalities.
East West Rail	The East West Rail is a focus of Midlands Connect and interacts with Warwickshire. The delivery of East West Rail is likely to have cumulative impacts on all topics. This is likely to be dependent upon the type, number and scale of future proposals which may occur within close proximity to East West Rail and future associated developments. There is potential for the expansion to have both positive and negative cumulative impacts on the economy, noise, air quality, health, noise and vibration, climate change, greenhouse gases, the water environment, the historic environment and landscape and townscape.
HS2 Phase 1 and 2	The route of HS2 Phase 1 and Phase 2 travels through Warwickshire. The delivery of this project, alongside WCC LTP4, may have positive cumulative effects on the economy in Warwickshire. The development may also have negative cumulative impacts on air quality in the county.
Birmingham Airport Expansion	The expansion and improvement of Birmingham Airport, and surrounding transport links, extends into the North of Warwickshire. The expansion and improvement of the airport's capacity has cumulative effects on air quality, noise and vibration, climate change, greenhouse gases, and landscape and townscape. The expansion also has positive cumulative impacts to the economy.
Nationally Significant Infrastructure Projects (NSIP's)	There are eight NSIP's located in the West Midlands region, these are: • M54 to M6 Link Road; • M42 Junction 6 Improvements; • West Midlands Interchange; • Willington C Gas Pipeline; • Reinforcement to North Shropshire Electricity Distribution Network;

Policies, Plans and Schemes	Potential Source of Cumulative Effects
	• Meaford Energy Centre; • Stafford Area Improvements – Norton Bridge Railway; and • Redditch Branch Enhancement Scheme. The development of NSIP's in the region have cumulative effects upon the noise and vibration, climate change and greenhouse gases, air quality, economy, landscape and townscape, and historic environment. These potential effects are due to the potential for concurrent construction phase activities acting on sensitive receptors and operational changes to baseline conditions leading to increased permanent pressures on receptors.

7.1.5 The review of plans and policies has identified a number of areas for cumulative effects:

- **ISA1 Population and Equalities:** There is likely to be cumulative benefits from the integration of multiple transport schemes and policies. These would likely enable more reliable, and accessible services, particularly public transport services that can be accessed by walking or cycling, to those in rural Warwickshire as well as elderly and disabled users.
- **ISA2 Economy:** There are likely to be significant cumulative benefits to the economic across Warwickshire following the policy developments outlined above, specifically Local Plans, Midlands Engine Rail, East West Rail and HS2 Phase 1 and 2. Alongside the LTP4 policies, these developments are likely to result in increased connectivity throughout the county and with the wider region, improving access to jobs and increasing tourism into Warwickshire through improved transportation links.
- **ISA3 Health and Wellbeing:** There are likely to be cumulative positive and negative effects upon health and wellbeing as a result of policies and schemes. This is likely to affect health outcomes related to social isolation, physical inactivity and obesity. Additionally, there are likely to be cumulative effects on health relating to air quality and noise.
- **ISA4 Community Safety:** There may be cumulative benefits on community safety as a result on the policies and schemes outlined above. These would likely reduce road traffic accidents and fear of crime on transport, due to opportunities to improve safety standards across all forms of transport.
- **ISA5 Biodiversity, ISA6 Natural Capital and ISA7 Ecosystem Services:** There is potential for cumulative loss, damage or fragmentation of statutory and non-statutory wildlife sites and habitats if multiple developments (particularly road developments) were to come forward. Although it is assumed that protected species would be mitigated at a project level, there are wider impacts on biodiversity. Net gain over multiple development plans may be difficult to achieve, however, the commitment of East West Rail to biodiversity net gain could set a precedent for future developments within the region and Warwickshire. This could have some beneficial cumulative effects on biodiversity. There is also a potential for deterioration in quality, and severance/loss of connectivity of ecosystems and green infrastructure, with consequent reductions in ecosystem service provision. This may be particularly prevalent where there is development from a number of sources (e.g. from local plans) close to population centres, or that stimulated by transport corridors.

- **ISA8 Landscape and Townscape:** There is potential for both positive and negative cumulative impacts on the setting of landscapes and townscapes, depending on the nature of the schemes put forward. This includes opportunities for positive placemaking through improvements to local and neighbouring infrastructure, but also potential for cumulative erosion of the character and quality of Warwickshire's unique landscapes and townscapes due to disruption to the tranquillity of the setting from projects like the Birmingham Airport expansion. Increased outward connectivity provided by all future developments could result in more people being able to access and explore the county's unique landscape and townscape, with additional cumulative benefits on the places identity.
- **ISA9 Historic Environment:** There is potential for both positive and negative, direct and indirect cumulative impacts on internationally, nationally and locally designated heritage assets, and their unique settings. This is in addition to cumulative effects on undesignated and unknown assets, which are also important. There is also the potential for new developments, such as new roads, to effect buried archaeological assets. However, well-designed transport infrastructure could present opportunities to enhance the quality of visual amenity of heritage assets by managing public access to or from the historic features and through the region's towns. This could have additional cumulative benefits for identity, health and wellbeing and placemaking.
- **ISA10 Water Environment and ISA11 Flood Risk:** There is potential for negative cumulative effects on the water environment as a result of the schemes put forward, in particular from road developments (such as the M54 to M6 Link Road). Increase in surface water runoff and subsequent flood risk as well as impacts on surface water and groundwater, arise particularly from physical alteration such as land take as a result of development. The degradation of water quality and increase in flood risk will be specific to each development, but if land take is implemented county wide, the cumulative effects will likely be negative.
- **ISA12 Air Quality and ISA13 Climate Change and Greenhouse Gases:** There may be cumulative benefits from transport initiatives in Warwickshire in improving air quality, but increased uptake of vehicular traffic (especially in the short term) may worsen air quality in some areas. This could have additional cumulative effects on health and wellbeing, tranquillity and biodiversity. Improvements to road infrastructure across the county (as with Birmingham Airport) may see reduced journey times and therefore limit impacts on air quality. There may be cumulative benefits from transport initiatives in Warwickshire in reducing greenhouse gases, but increased development is also likely to increase transport related greenhouse gas emissions, particularly where this leads to increases in vehicular traffic and embodied carbon due to the development. Climate change adaptation measures are likely to be specific to each development, but there may be cumulative benefits if implemented county-wide.
- **ISA14 Land use Resource and Waste and ISA15 Soils:** There is potential for negative cumulative effects on soil and land use as a result of particularly the local plans and neighbouring local transport plans put forward. The risk of deterioration in quality of, and potential loss of soils arise particularly from physical alteration such as land take as a result of development. Equally, if multiple schemes where to be put forward as outlined above, there would be a cumulative use of resources and production and disposal of waste in construction.
- **ISA16 Noise and Vibration:** There are likely to be negative cumulative effects arising from noise from increased development, particularly transport related developments such as road and rail developments. These effects are likely to have cumulative effects on health and wellbeing, tranquillity and biodiversity as there would be heightened noise levels from multiple projects in close proximity to human and ecological receptors, especially during simultaneous construction.

8 MITIGATION, ENHANCEMENTS AND MONITORING

8.1 PROPOSED MITIGATION AND ENHANCEMENTS

8.1.1 Mitigation of significant negative effects of the plan and enhancement of positive effects are a key purpose of ISA. The SEA Regulations require that mitigation measures are considered to prevent, reduce or offset any significant adverse effects on the environment of implementing the plan. The measures are known as 'mitigation' measures. Mitigation measures include both proactive avoidance of adverse effects and actions taken after potential effects are identified.

8.1.2 The mitigation measures proposed in **Table 8-1** are designed to avoid or reduce the effects identified as potentially negative through the policy assessments on the ISA Objectives. The table also includes enhancement measures, that aim to optimise positive impacts and enhance sustainability.

8.1.3 These mitigation measures should be used to inform the subsequent development of specific schemes in line with the strategic objectives and policies.

Table 8-1 – Proposed Mitigation and Enhancements

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA1: Population and Equalities HIA EqIA	The LTP 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.	Ensure the needs and aspirations of groups with protected characteristics are considered in delivering transport solutions, in addition, including those from low income households. This could include measures such as: • Fair pricing for public transport; • Consideration of grants and exemptions for electric vehicles, clean air zones and other vehicle restriction and charging schemes; • Engagement with protected characteristic groups specifically to ensure the needs of these groups are identified; and • Consideration needs to be given to those who may not have the same understanding of or access to technology (for example the elderly, those with learning difficulties or in low income groups).	N/A
ISA2: Economy	The LTP 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.	None Required	N/A

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA3: Human Health and Wellbeing HIA EqIA	The LTP make a mostly positive contribution to addressing health and wellbeing through providing non-car-based options of transport alongside measures to increase accessibility to services and reduce air pollution and noise levels.	• The incorporation of natural features such as tree planting, green roofs on bus stops, hedgerows and wildflower planting along walk/cycleways to enhance connections to nature and reduced stress levels, contributing to mental health and wellbeing benefits. • 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.	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.
ISA4: Community Safety EqIA	The LTP make a mostly positive contribution to addressing community safety within Warwickshire, with a particular focus on enabling active travel through increased safety measures.	• Ensure that improvements are considerate of appropriate lighting schemes and security measures. There should be considerate placement of infrastructure such as cycle parking, to ensure visibility of users to discourage criminal activity (both to property and people).	N/A

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA5: Biodiversity	Issues arise in relation to these 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. 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.	• In order to maximise sustainability benefits, transport interventions must commit to at least 10% biodiversity net gain to ensure environmental net gain over and above that of decarbonisation. • Infrastructure schemes should incorporate design measures to lessen the impact on biodiversity. • 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. • Development should consider impacts on international, national and local important sites (including sites such as SACs, AONBs, SSSIs and local nature reserves). This includes the potential impacts of noise, air and light pollution. • Where a transport project is likely to have a significant effect on the natural environment the avoidance-mitigation-compensation hierarchy applies, for example, less damaging alternatives should be sought with regards impacts to high value ecological and landscape receptors.	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.
ISA6: Natural Capital		• In order to maximise sustainability benefits, transport interventions must make use of the natural capital approach to ensure environmental net gain over and above that of decarbonisation.	For smaller scale interventions, mitigation measures are likely to minimise negative effects;

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA7: Ecosystem Services		• 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. • Where a transport project is likely to have a significant effect on the natural environment the avoidance-mitigation-compensation hierarchy applies, for example, less damaging alternatives should be sought with regards impacts to high value ecological and landscape receptors.	For larger interventions, namely new highway schemes, mitigation measures will reduce but may not eliminate negative effects.
ISA8: Landscape and Townscape	The setting and context of these designated areas is inherently rural. Any physical intervention taking place in or near these areas has the potential to negatively impact the character, setting and, tranquillity, even if the purpose is to improve access to these.	• Where transport infrastructure is being built and/or improved within, or within the zone of influence of a designated landscape, a landscape and visual impacts assessment should be undertaken to determine magnitude of impact and possible mitigation. • Development should consider impacts on designated landscape areas such as the Cotswolds AONB. This includes the potential impacts of noise, air and light pollution. • Transport solutions must seek to maximise sustainability benefits from existing landscape, townscape and heritage assets by valuing them inherently and for the wider services they provide.	In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA9: Historic Environments	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.	• Promoters and designers should liaise closely with WCC and Historic England to avoid or minimise negative impacts, such as land take and light pollution, whilst seeking to maximise benefits, such as tranquillity. • Transport solutions must seek to maximise sustainability benefits from existing landscape, townscape and heritage assets by valuing them inherently and for the wider services they provide. • 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; and • As with other receptors, avoidance of heritage assets in should be a key consideration. 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.	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.

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA10: Water Environment	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. Increased trips and capacity on the existing road network would increase rates of runoff and pollution without appropriate measures to mitigate this.	• The incorporation of Sustainable Drainage Systems (SuDS) into all interventions where practicable; and • 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 LTP4.	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.
ISA11: Flood Risk	Physical interventions will result in increased 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 Warwickshire's flood risk context.	• Carry out an updating Strategic Floor Risk Assessment (SFRA) in support of LTP4, applying the outcomes to LTP4 strategies and policies. 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.	In general, commitments to the outlined mitigation measures will see an improvement at point of implementation.

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA12: Air Quality HIA	Although the LTP proposes a modal shift to more sustainable travel options with subsequent improvements to air quality, any new infrastructure to obtain this will, in their construction phase, contribute negatively to air quality, as well as the operational phase of new roads proposed.	• Incorporate Air Quality Action Plans into the strategies to ensure exceedances are minimised. 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.	N/A

ISA13: Climate Change and GHG's	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 likely implementation of the Motor Vehicle Strategy and Freight Strategy will have an unavoidable negative effect on GHG emissions.	• Any form of construction and operation should be undertaken as sustainably as possible, making use of tools and processes, such as circular economy, waste hierarchy, CEEQUAL and BREEAM. • Sustainable design and construction techniques should be promoted such as low energy lighting. • 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.	Opportunities for renewable energy capture should be integrated into interventions where practicable.

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA14: Land Use, Resource and Waste	Construction of new infrastructure requires both land take and increased resource use. This will result in waste generation. Capacity increases to elements of the transport network will similarly increase resource use.	• Where land take is required, preference should be given to brownfield land/ previously developed land and avoidance of the best and valuable land; • 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.	Opportunities for renewable energy capture should be integrated into interventions where practicable.
ISA15: Soils	Issues may arise when interventions are required on areas of previously non-disturbed or valuable soils. 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.	• 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, alternatives should be considered; and • Development should aim to minimise soil disturbance as possible through careful soil management during the construction process. Reference should be given to Defra's Code of Practice for the Sustainable Use of Soils on Construction Sites.	N/A

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
ISA16: Noise and Vibration	Although the LTP proposes a modal shift to more sustainable travel options with subsequent improvements to noise and vibration, any new infrastructure to obtain this will, in their construction phase, contribute negatively to noise and vibration, as well as the operational phase of new roads proposed.	• Sustainable design and construction techniques should be promoted such as low noise road surfaces. • Incorporate Noise Action plans into the strategies to ensure exceedances are minimised. • 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.	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.

ISA Objective/ Assessment	Issue	Mitigation Proposed	Opportunities for Enhancement
EqIA HIA	Although the LTP proposes improvements to active and sustainable travel networks, these options may not be accessible to those with protected characteristics.	• Ensure the needs and aspirations of groups with protected characteristics are considered in delivering transport solutions, in addition, including those from low income households. • Streetscape, spacing and infrastructure design for electric infrastructure (charging, parking, signposting) will need to take account of accessibility for all including those with reduced mobility or disability. • Community safety, health and equalities should be considered in design, for example, pedestrian networks, including linking new developments into existing infrastructure, integrating modes of transport (both public and active), lighting and other safety design considerations, materials used (contrasting colours, non-slip surfaces), accessibility for all including those with reduced mobility or disability, well-being, affordability of schemes, active travel. • New active travel routes should be made wide enough to enable access for all users, including those with reduced mobility or disabilities. • In implementing interventions for reducing car dependency, provision should be maintained for those for those with limited mobility, such as retention or provision of new designated blue badge parking. • Accessible surfacing should be considered for mobility aid users and people with mobility restrictions.	N/A

8.2 MONITORING

8.2.1 The SEA Regulations require that monitoring is undertaken on a plan so that the residual effects of implementation can be identified, and remedial action imposed. The purpose of the monitoring is to provide an important measure of the sustainability outcome of the final LTP, and to measure the performance of the plan against sustainability objectives and targets. Monitoring is also used to manage uncertainty, improve knowledge, enhance transparency and accountability, and to manage sustainability information.

8.2.2 The aim of monitoring is to check whether the effects of the implementation of the LTP are comparable to those that were predicted in the ISA, and to deal with any unforeseen problems. **Table 8.2** below outlines potential monitoring measures for the residual effects that remain uncertain.

Table 8-2 - Proposed Monitoring

ISA Objective	What could be monitored
ISA5: Biodiversity	The number of biodiversity enhancement schemes implemented through the LTP. Number of new green infrastructure projects associated with new developments. Seek the achievement of the biodiversity net gain through application of Natural England's Biodiversity Metric 3.014
ISA6: Natural Capital	Record the length of GI net gain through the transport network.
ISA7: Ecosystem Services	Incorporate into Benefit Realisation Plans and collate a record of BNG and biodiversity enhancement provision for interventions throughout the lifetime of the plan. 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.
ISA8: Landscape and Townscape	The total loss of greenfield land to development. Landscapes benefiting from conservation and enhancement measure as a result of the LTP.
ISA9: Historic Environments	The number of historic assets (statutory and non-statutory) negatively affected by the LTP. The number of historic assets (statutory and non-statutory) benefiting from conservation and enhancement measure as a result of the LTP.

[14] Natural England, Biodiversity Metric 3.0, 2021 [online] available at: http://publications.naturalengland.org.uk/publication/6049804846366720 [last accessed: 04/08/21]

ISA Objective	What could be monitored
ISA10: Water Environment	Coordinate with EA monitoring of water quality and review annual results.
ISA11: Flood Risk	Monitoring around flood risk reduction and prevention targets as developed in the SFRA.
ISA12: Air Quality	To monitor levels of noise with existing AQMAs and ensure they don't exceed existing baseline levels.
ISA13: Climate Change and GHG's	Baselining and measuring the Warwickshire plan area's aggregated carbon estimate and baseline measuring of air quality levels. Percentage increase / decrease in overall carbon emissions and air quality.
ISA14: Land Use, Resource and Waste	To monitor the number of schemes promoting the reuse of existing infrastructure and/ or use of sustainable materials.
ISA15: Soils	Review areas of brownfield land to determine if they are being utilised in support of the LTP4. Review areas of valuable agricultural land change over time to ensure that transport infrastructure and related developments are not responsible for reductions in area.
ISA16: Noise and Vibration	Monitor the number of noise important areas. Develop Noise Action Plans to tackle specific arising issues if required.

8.3 SEA PROCESS CONCLUSION

8.3.1 The SEA process is not yet complete due to the recommendations detailed above in Table 6-8. The LTP4 lifetime extends to 2026, and the monitoring and implementation process will continue throughout this lifetime. As projects are progressed as part of LTP4 throughout this time will require detailed environmental assessment, and LTP4 should influence the design and implementation of these projects.

8.3.2 A system to monitor the mitigation measures recommended in the SEA as well as the overall performance of LTP4 in relation to the sustainability objectives will need to be established. It is intended that these will be part of LTP4 objective and target monitoring process and carried out in parallel with other monitoring efforts.

8.3.3 As projects are implemented impacts can be assessed at a specific and local level. Risks of negative impacts may arise through the methods of implementation for a project. 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, with reference to both the ISA and LTP4.

9 RECOMMENDATIONS

9.1.1 This section sets out the recommendations identified throughout the ISA assessment. These have been taken from the ISA, HIA and EqIA. It should be noted that these are different from the mitigation measure outline in **Section 8** above, as they focus on potential changes to the LTP4, rather than measures identified in response significant effects.

9.1.2 **Table 9-1** below outlines these recommendations.

Table 9-1 - Recommendations for LTP4

Recommendations
Details of the implementation phase of all policies would allow for a more accurate and fuller appraisal of effects in relation to ISA objectives. In particular, the ISA has appraised uncertain effects in some cases on ISA5-7, 10, 11, 14 and 15 due to lack of information on potential interventions to be implemented. As more information on the implementation of LTP4 becomes available, these policies should be revisited to reappraise the likely effects.
Incorporate mitigation recommendations detailed in **Section 8.1** into the draft LTP4. Key measures that are recommended to implement include, but are not limited to: ▪ Incorporate BNG and make use of the natural capital approach into the LTP4; ▪ Incorporate Air Quality Action Plans and Noise Action Plans into strategies; ▪ Incorporate clarity, commitments and targets in relation to climate greenhouse gas emissions, water quality and flood risk into LTP4; ▪ Update Warwickshire's SFRA (from 2013) to reflect the baseline environment of LTP4 ▪ Where possible, new developments should be located on brownfield land, or land that has previously been developed; and ▪ In the case of highway and freight interventions, if alternative interventions are not feasible, then avoidance of receptors should be pursued alongside appropriate measures for environmental and human receptors.
Incorporate monitoring recommendations detailed in **Section 8.2** into the monitoring framework of the draft LTP4. Key measures that are recommended to implement include, but are not limited to: ▪ Establishing a record for the number of biodiversity enhancement schemes implemented, the number of new green infrastructure projects and BNG; ▪ Monitoring of the loss of greenfield land or BMV to developments; ▪ Record the number of historic assets affected (negatively or positively) by the LTP implementation; ▪ Establish and monitor Warwickshire's increase/decrease in carbon emissions; and ▪ Monitor air quality and noise within existing AQMAs and NIAs to ensure they do not exceed baseline levels.
Both the Motor Vehicle and Freight Strategies result in negative effects on multiple ISA objectives. The associated road interventions and new freight parks may result in negative effects in relation to biodiversity, air quality, cultural heritage, townscape and landscape, health, noise and GHG ISA objectives. It is recommended that the incorporation of these new highway and freight interventions be minimised where practicable to interventions that upgrade existing infrastructure with an aim to address congestion and improve safety. New road interventions and interventions with an aim to increase road freight capacity should be avoided as this will conflict with LTP4's thematic aims.

Recommendations
The nature of the Motor Vehicle and Freight Strategies will not contribute to deliver the change in the transport network required to address the Climate Change Emergency or meet national targets for GHG emissions reduction given their encouragement of continued motor vehicle use. While much of the plan shifts Warwickshire in the right direction to begin transformative change to shared, active travel, and public transport, the continued place of private fossil fuel vehicles as the primary mode of transport and the apparent intention to accommodate and promote road based freight as the primary freight delivery method remains a key barrier to achieving net zero. It is recommended that interventions focusing on improving capacity of the road network for private motor vehicles road based freight is minimised and avoided where practicable. These interventions should only be pursued if alternatives have been considered and ruled out as not feasible.
Clear targets and commitments to BNG and biodiversity protection and enhancement are currently not included in LTP4. It is recommended that commitments are adopted and mitigation, in particular regarding protected sites and habitats, are further developed for the implementation phase of LTP4.
There are no statements within the draft LTP4 for how flood risk issues arising from the implementation of strategies would be mitigated. It is recommended that flood risk commitments be adopted within LTP4, with mitigation for flood risk being further developed.
The effects of the LTP4 on water resources in Warwickshire currently has a high proportion of uncertainty. Any interventions proposed that intersect water courses, come in close proximity to watercourses or do works in areas of groundwater have the potential to adversely affect water quality, ecology, geomorphology and hydrology of said watercourses. Targets regarding water quality preservation and enhancement should be included within LTP4, along with proposed methods for avoiding and mitigating adverse effects.
More information on the data collection and monitoring policies KP4, KP5, MS4 and MV2 is required, alongside details of how the collected data and review process will be utilised to inform developments would allow for a more accurate appraisal of these policies.
EqIA – It is recommended that inclusive stakeholder engagement is undertaken with relevant groups when appropriate to ensure that proposed interventions as a result of the implementation of these strategies, consider the needs of all protected characteristic groups.
EqIA/ HIA – It is recommended that the Public Transport Strategy incorporates fair pricing for public transport to ensure the needs and aspirations of groups with protected characteristics are considered, including those from low income households.
EqIA/ HIA- The Active Travel Strategy should ensure that active travel infrastructure should be accessible and inclusive for all groups. Consideration should be made for removing other barriers towards active travel for disabled people, such as affordability. This could be incorporated within the policies.

10 NEXT STEPS

10.1.1 In accordance with the SEA Regulations, the ISA Report must be made available at the same time as the draft plan or programme, as an integral part of the consultation process, and the relationship between the documents clearly indicated.

10.1.2 This ISA Report will be issued to the statutory consultees (Environment Agency, Historic England and Natural England) for an 8-week consultation period, alongside the draft LTP4.

10.1.3 The general public will also be encouraged to comment on the ISA Report and guided by the following questions:

- To what extent do you agree with the assessment outcomes of the Integrated Sustainability Appraisal report?
- Do you think the proposed measures are sufficient to address the outcomes in the Integrated Sustainability Appraisal?

10.1.4 Following consultation on this report, any necessary amendments will be made in responses to consultation comments and a finalised version of the report will be issued, alongside a post-adoption statement.

10.1.5 It should be noted that the HRA undertaken for the LTP4, will be consulted on separately with just Natural England.

10.1.6 The LTP timetable is set out in **Table 10-1** below.

Table 10-1 - ISA and Transport Plan Timetable

Transport Plan Activity	Timeframe
ISA Report and LTP Consultation	24th September – 20th November 2022
Post-consultation ISA and LTP updates	Winter/ Spring 2023
Publication of Transport Plan and final ISA	Winter/ Spring 2023
Post Adoption Statement	Winter/ Spring 2023

Appendix A

ASSESSMENT OF DRAFT LTP4 POLICIES

CORE STRATEGY

ASSESSMENT OVERVIEW

Table A-1 below provides an overview of the assessment of strategic policies.

Table A-1 - Core Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
KP1	+	+	+	+	+/-	+/-	+/-	+/-	+/-	?	?	+	+	0	0	+
KP2	+	++	+	+	+	+	+	+	0	0	0	+	+	+	+	+
KP3	+	+	+	+	+	+	+	+	+	+	0	+	+	?	?	+
KP4	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
Core Strategy	+	+	+	+	?	?	?	+/-	+/-	?	?	+	+	?	?	+/-

POLICY ASSESSMENT SUMMARY

The following four Policies are within the Core Strategy:

- **KP1** – Engaging with communities to provide transport options which recognise the unique travel needs of Warwickshire's different places;
- **KP2** – Transport interventions which align with our Council Vision, government policy and as many of our four key strategy themes as possible;
- **KP3** – Decarbonising transport and transport related infrastructure; and
- **KP4** – Data and evidence-led monitoring and evaluation of our transport interventions.

KP1

It is anticipated that **KP1** will result in minor positive effects to multiple ISA objectives. The policy's tailoring of interventions to suit local requirements will likely result in the ageing and rural populations in Warwickshire seeing improvements to services, therefore minor positive benefits to **ISA1** are expected. Minor positive effects are also anticipated for **ISA2** as sustainable, modern travel choices will likely support flexible working and increase connectivity to employment areas. **KP1** will also likely bring minor positive benefits for both **ISA3** and **ISA4** as the provision of more sustainable travel options is likely to result in encouraging a modal shift away from private car use, reducing vehicle emissions and subsequently improving health through a reduced exacerbation of conditions such as asthma. Additionally, sustainable modes infer more active travel networks, which will improve physical activity rates and promote healthier lifestyles.

A reduced number of private vehicles on the road will also have the potential to reduce road traffic accidents, improving the overall safety of the county. **KP1** is anticipated to have a similar minor positive effect for **ISA12.** More sustainable travel options may involve a reduced number of private vehicles on the road and fewer emissions, resulting in improved air quality. Similarly, GHG emissions would be reduced resulting in a likely minor positive effect for **ISA13**. Finally, **KP1** may have a positive effect on **ISA16**. As more sustainable travel options encourage a modal shift away from private vehicles use, it is anticipated there will be reductions in noise, which in the long term will outweigh any generated through construction.

There is potential for mixed positive and negative effects for **ISA8** and **ISA9** as a result of **KP1**. Where the policy states the opportunity to maximise modern travel choices, there is potential for improved quality of the landscape and townscape with the promotion of high-quality design. However, in doing so, infrastructure may fail to maintain the character and distinctiveness of the local area and could adversely affect heritage assets during their construction. Similarly, there is potential for mixed positive and negative effects on **ISA5, ISA6** and **ISA7**. Negatives may be experienced by biodiversity as a result of nearby construction activities causing disturbance, fragmentation and injury/death to species, habitats and protected areas. However, positives may be realised on completion of interventions due to the new infrastructure working to improve air quality, reduce noise pollution and lower disturbances to habitats overall through a modal shift away from private motor vehicles.

More information is required to fully assess the effect **KP1** will have on **ISA10** and **ISA11**. The impact on both water quality and flood risk will depend highly on the ways in options will be implemented. If construction is required, there is potential for groundwater contamination as a result. Additionally, if there are more impermeable surfaces built as part of the policy, this may increase flood risk.

It is expected that there will be negligible effects on **ISA14** and **ISA15** as a result of **KP1** as there is unlikely to be any landtake required beyond existing roads, besides potentially for cycle routes. As a result, pressures will not be put on agricultural land areas and potentially contaminated or valuable soils will not be disturbed.

KP2

It is anticipated that **KP2** may bring minor positive effects to **ISA1**, as the policy supports young demographics through training benefits, as well as safety and independence improvements that will provide support to the elderly and those with disabilities, enabling them to access Warwickshire, improving their connectivity.

Significant positive effects are anticipated for **ISA2** through the facilitation of jobs, training, skills, education and infrastructure allowing further employability for Warwickshire's population through increasing access to these facilities and economic hubs. This will also improve connectivity through improving infrastructure. **ISA3** will likely experience minor positive effects as a result of **KP2,** through encouraging net zero and sustainable modes, increasing active travel uptake and encouraging communities live healthy and happy lives, as well as ensuring communities live safely, meeting **ISA4**.

KP2 will bring minor benefits to **ISA8**, as intervention is designed to facilitate place and support communities within it, which will enhance the overall setting of the landscape and townscape. It is assumed that any new developments will be designed to enhance the current townscape setting.

With the aim of being a sustainable county, it can be assumed that **KP2** refers to a shift from private car use to more public and active transport. This would bring minor positive effects to **ISA12**, through reducing private car use, and fewer emissions resulting in improved air quality. Similarly, fewer emissions would mean fewer GHG's being released, and so **ISA13** is also likely to experience minor positive effects.

The effects of KP2 on **ISA5, ISA6, ISA7, ISA10, ISA11, ISA14, ISA15** and **ISA16** are anticipated to be positive. Although information is lacking on the makeup of the interventions, there is potential for positive effects if the objectives of the policy are matched in the implementation of associated interventions.

Finally, mixed positive and negative effects are anticipated for **ISA16**. As more sustainable travel options encourages a modal shift away from private cars, there will likely be reduced noise pollution as a result. However, the introduction of more public transport services, such as bus and rail, will contribute to noise pollution.

KP3

It is anticipated that **KP3** will bring minor positive effects to **ISA1.** By discouraging car use in favour of sustainable modes, it may be assumed these alternative modes be made more accessible, particularly to lower income groups and those in previously unserved areas such as rural Warwickshire. Minor positive effects are also anticipated for **ISA2** – by discouraging car use, congestion may be eased reducing travel time to work. **ISA3** and **ISA4** will also likely experience minor positive effects as a reduced number of private vehicles on the road will mean less emissions and so improved air quality and improved overall health, as well as reduced number of private vehicles meaning fewer road traffic accidents.

KP3's discouragement of private car use will likely bring minor positive effects to **ISA12** and **ISA13**. Less private vehicles on the roads means fewer emissions, resulting in improved air quality. Similarly, fewer emissions would mean fewer GHG's being released. Similarly, **KP3's** statement of discouraging car use will work to reduce noise pollution.

The effects on **ISA5**, **ISA6**, **ISA7**, **ISA8, ISA9,** and **ISA10** are anticipated to be positive due to the indirect positive effects on decarbonisation **KP3** is likely to have. **KP3**'s impact on both **ISA14** and **ISA15** is also largely unknown at this stage, due to the unspecified nature of how the council intend to implement sustainable travel options. More information will be required to fully assess any land lost or important soil resources impacted. Finally, **KP3** may bring positive effects to **ISA16** as the operational reality of this policy will mean reduced private vehicles and increased active travel, benefitting noise pollution.

KP4

KP4 involves data collection to inform future work, which will not bring direct or immediate benefits to any ISA objective but may have the potential to bring benefits in the future. More information on the monitoring programme as well as what would be done with the data is needed to be enable full appraisal of this policy.

OVERALL STRATEGY SUMMARY

Minor positive effects are anticipated for **ISA1** (Equality and Inclusion) mainly from policies **KP1** and **KP2**. Policy **KP1** aims to increase connectivity within Warwickshire, including its rural areas, and work with communities to provide suitable travel options. This is anticipated to positively contribute to **ISA1** through improving inclusion. Similarly, policy **KP2** supports this through measures to live safety and independently. This is likely to improve equalities through providing increased travel options.

Minor positive effects are also anticipated for **ISA2** (Economy). This is attributed mainly to policy **KP2** as this aims to deliver benefits to the economy, and facilitate jobs, training and education to support economic growth. Policy **KP1** also contributes to minor positive effects on **ISA2** due to improving connectivity contributing to improve access to town centres, and areas of jobs. Minor positive effects have also been identified as likely for **ISA4** (Safety) through a reduction in car use reducing the number of collisions on Warwickshire's roads, as encouraged in **KP3** and **KP1**, as well as improvements from **KP2** whereby encouraging communities to live safely.

As a result of policy **KP1**, **KP2** and largely **KP3**, there are anticipated minor positive effects on **ISA3** (Health), **ISA12** (Air Quality) and **ISA13** (Climate change and GHGs). The promotion of sustainable, low carbon, modes of transport aids in reducing emissions within Warwickshire (**ISA13**). A reduction in transport related emissions will likely contribute positively to improving air quality (**ISA12**) and subsequently improve health. Poor air quality is a contributing factor to exacerbations incidents of health conditions and improvements in air quality are likely to improve respiratory health for those in Warwickshire, particularly those living next to the county's most congested roads. Additional positive effects identified for **ISA13** are likely due to the assumed resilience of any new designed transport network within Warwickshire. It is assumed that new developments will include measures to increase flood resilience, as well as measures to minimise the effects of chronic and acute climate change.

Mixes positive and negative effects have been identified for both **ISA8** (Landscape and Townscape) and **ISA9** (Historic Environment). These effects are likely due to the reduction in congestion and vehicle traffic contributing to improve the setting of current landscapes and heritage assets. However, any transportation developments, such as the new networks proposed within **KP1**, may have negative effects on landscape and heritage assets through increased disturbance and altering the setting of these assets. Additionally, most of the

proposed interventions are likely to be located within Warwickshire's towns (as these areas have the highest number of residents and transport hubs), meaning development may alter the distinctive townscapes of Warwickshire.

Effects on **ISA16** (Noise and Vibration) have also been identified as likely mixed positive and negative. These impacts are attributed to potential reductions in traffic noise through the promotion and development of sustainable transport and discouragement of car dependency identified in **KP3**. However, new developments to improve connectivity, such as those proposed within **KP1**, have the potential to increase noise and vibration in rural and semi-rural areas that previously may have had low levels of noise.

Uncertain effects have been identified for **ISA5** (Biodiversity), **ISA6** (Natural Capital), **ISA7** (Ecosystem Services), **ISA10** (Water), **ISA11** (Flood Risk) **ISA14** (Land Use and Waste) and **ISA15** (Soils). These uncertain effects are due to the lack of clarity surrounding possible schemes or improvements to current transport networks as it is uncertain where these will occur, their nature, and if sensitive sites, such as valuable agricultural land, will be affected. Uncertain effects on flood risk are also attributed to the potential for any increase in non-permeable surfaces, such as tarmac, has the potential to negatively impact upon flooding, particularly if located within Flood Zones. However, the location of schemes within Flood Zones is currently uncertain.

Information on the implementation of the Core Strategy and its policies is very limited at this stage. As such, the appraisal of the strategy and policies has been based on the assumption that the implementation of projects corresponds with these policies and is successful at achieving policy aims.

ACTIVE TRAVEL STRATEGY

ASSESSMENT OVERVIEW

Table A-2 below provides an overview of the assessment of strategic policies.

Table A-2 - Active Travel Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
AT1	+	+	+	+	0	0	0	+	0	0	0	+	+	0	0	+
AT2	+	+	+	+	?	?	?	+	+	0	0	+	+	+	0	+
AT3	+	+	+	0	0	0	0	+	+	0	0	+	+	0	0	+

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
Active Travel Strategy	+	+	+	+/-	?	?	?	+	+	0	0	+	+	0	0	+

POLICY ASSESSMENT SUMMARY

The three policies included within the Active Travel Strategy are:

- **AT1** – Improving accessibility and attractiveness of active travel options;
- **AT2** – Better, safer routes for walking and cycling; and
- **AT3** – Information and Promotion.

AT1

It is anticipated that **AT1** will result in minor positive and major positive effects to multiple ISA objectives. **AT1** is highly inclusive of various age groups, providing improvements to transport like rail and bus to support the elderly, and cycle schemes to support a youthful workforce, therefore potentially bringing minor positive effects to **ISA1. AT1** will likely bring minor positive effects to **ISA2** as improved transport through increased provision of active travel as well as improvements to town centres and public transport will likely lead to improved access to employment, as well as improved accessibility to economic hubs. **AT1** will work to improve accessibility and

attractiveness of active travel options, which is anticipated to promote healthier lifestyles and therefore, a likely minor positive effect on **ISA3. AT1** is also anticipated to bring minor positive effects to **ISA4** by providing safe and secure cycle parking facilities as part of improving the attractiveness of active transport.

The effect **AT1** will have on **ISA5**, **ISA6**, **ISA7** and **ISA14** is negligible as the interventions suggested in the policy would be focused in areas of existing infrastructure, meaning there will likely be no landtake and subsequently no pressures on agricultural and and soils.

AT1 is expected to have minor positive effects on **ISA8** due to the introduction of low carbon last mile goods that will reduce the number of vehicles on the roads, therefore alleviating both congestion and emissions, which will improve the overall setting of the townscape and landscape. **AT1** will likely not have any impact on **ISA9, ISA10, ISA11, and ISA15.**

AT1 is anticipated to have minor positive effects on both **ISA12** and **ISA13.** The combination of increased active travel and low carbon last mile goods deliveries will likely reduce the number of private vehicles on the road, leading to less emissions, meaning both improved air quality and fewer GHG's being released. Finally, **AT1** will likely have a minor positive effect on **ISA16**, as private car usage being replaced by active travel is expected to lower noise pollution.

AT2

It is anticipated that **AT2** will result in minor positive and major positive effects to multiple ISA objectives**. AT2** will likely create minor positive effects for **ISA1** as it sets out to create connections that are accessible to all groups. By promoting active transport as a first choice travel option. **AT2** is expected to have a minor positive effect on **ISA2** as by improving connectivity as well as the reliability of journey times, travel to work may become easier and more flexible working patterns are able to be supported. **AT2** works to enable healthy lifestyles for residents through improved rates of physical activity, improved mental health from exposure and accessibility to greenspace, and improved health as a result of reduced congestion and resultant better air quality. Because of these, **ISA3** is anticipated to experience minor positive effects. **AT2** is expected to create minor positive effects for **ISA4**, as its primary aim is to create safer walking and cycling routes.

AT2 will likely have negligible effects on **ISA10** and **ISA11** and **ISA15** as the implementation of active travel routes will likely build on existing infrastructure and thereby avoiding increasing nonpermeable surfaces (contributing to flood risk) or altering conditions in existing watercourses.

The effect **AT2** will have on **ISA5**, **ISA6** and **ISA7** is unable to be assessed at this stage as insufficient information is provided as to the nature of improvements to infrastructure. For example, upgrades to routes may involve routing through areas of biodiversity and valuable habitats such as woodland, which could result in potential negative effects from disturbances from construction activities and operational conditions of increased footfall. However, as with other policies, a modal shift to active travel and away from private motor vehicles will have a county wide positive effect on biodiversity due to a suite of positive (reduced collisions with animals, noise level reduction, air quality improvement, emissions reductions etc.).

Routes that are safer and more comfortable will likely improve the setting of the townscape and landscape, through a reduction in road noise, as well as the community's perception of it, therefore **AT2** is likely to have a minor positive effect on **ISA8**. Reduced congestion is likely to improve air quality which contribute positively to the setting of heritage assets, as well as slow their degradation, meaning **AT2** may also have minor positive effects for **ISA9**. Similarly, **AT2** is anticipated to have positive effects on both **ISA12**, **ISA13** and **ISA14.** The increased accessibility and attractiveness of active travel will likely lead to a reduced number of private vehicles on the road, leading to less emissions meaning both improved air quality, reduced GHG emissions and reduced pressures on agricultural land and waste generation. Finally, **AT2** will likely have a minor positive effect on **ISA16**, as private car usage being replaced by active travel is expected to lower noise pollution.

AT3

It is anticipated that **AT3** will result in minor positive effects to multiple ISA objectives. By making mapping and signing more "user-friendly" **AT3** will likely result in minor positive impacts for **ISA1**, as active travel routes will become more accessible for the elderly and those with disabilities. **AT3** will likely bring minor positive effects to **ISA2** as with greater communication residents may discover more convenient/cheaper routes to work, which would improve access to employment. Similarly, with increased communication residents may discover new modes of active transport such as rental bike hubs, and therefore encourage uptake and enable healthier lifestyles, meaning **AT3** is also anticipated to result in minor positive effects for **ISA3**.

AT3 will likely have negligible effects **ISA4-7, ISA10, ISA11, ISA14** and **ISA15** as the policy is a behavioural based policy designed to encourage use of infrastructure in more urban settings specified under other policies.

AT3 is anticipated to have minor positive effects on **ISA8 and ISA9** as it is likely that greater communication and information will lead to increases in active transport uptake. This is likely to reduce congestion caused by car use and therefore improve the overall setting of the landscape and townscape, particularly on heavily congested routes.

Similarly, **AT3** is anticipated to have minor positive effects on both **ISA12** and **ISA13.** The increased communication and information of active travel options will likely lead to greater uptake and a reduced number of private vehicles on the road, leading to lower emissions meaning both improved air quality and fewer GHG's being released. Finally, **AT3** will likely have a minor positive effect on **ISA16**, as private car usage being replaced by active travel is expected to lower noise pollution.

OVERALL STRATEGY SUMMARY

Minor positive effects are anticipated for **ISA1** as a result of policies **AT1**, **AT2** and **AT3**. The proposed developments to active travel options also improve accessibility to the access of these active travel routes. Additionally, measures are intended to include accessibility for those living in rural areas as well as those in urban areas. Additionally, minor positive effects are anticipated for **ISA2**. The improvement of active travel networks provides another access point for those who do not have access to a private car, allowing access to areas of employment.

The development to active travel networks, as outlined throughout policies **AT1**, **AT2** and **AT3**, contribute to encouraging a modal shift away from private car use, towards modes such as walking and cycling. Policy **AT3** works to combine all three strategy policies to create a comprehensive active travel strategy through its identification of the need to provide and encourage a modal shift away from private car use. **AT3** specifically, works in conjunction with **AT1** and **AT2** to improve the outcomes of these policies. The encouragement towards walking and cycling is likely to improve both physical health and mental wellbeing among those in Warwickshire (**ISA3**). Additionally, encouraging this shift away from private car use will see a positive influence on improving air quality (**ISA12**), and therefore improve health. Positive effects are also identified for **ISA13** due to the potential for reduction in road traffic emissions and greenhouse gases as a result of reduced congestion and reduced car use.

Improvements identified within policy **AT2** focus on improving the safety of Warwickshire's active travel routes (**ISA4**), ensuring that they are safe from crime and also safe for use. Measures such as this also aid in improving the feeling of safety, particularly at night, on these routes. Additionally, policy **AT1** outlines measures for safe cycle parking facilities, this also contributes to improved safety. However, thee are potential negative effects upon **ISA4**, as increasing the number of active travel users, particularly cyclists, on Warwickshire's roads may see an increase in collisions involving cyclists, reducing road safety.

Minor positive effects are anticipated for **ISA8** and **ISA9**. The reduction in road traffic numbers is likely to have a positive effect in enhancing both the landscape setting and setting of heritage assets. Additionally, enhancements to active travel routes may also

contribute positively to setting. Additional minor positive effects have also been identified for **ISA16** as the reduction in road traffic is also likely to contribute to reduced noise on Warwickshire's roads.

Uncertain effects have been identified for **ISA5**, **6**, and **7** as it is currently unclear on the location of potential interventions, the key indicator on potential effects.

PUBLIC TRANSPORT STRATEGY

ASSESSMENT OVERVIEW

Table A-3 below provides an overview of the assessment of strategic policies.

Table A-3 - Public Transport Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
PT1	++	+	+	+	?	?	?	+	+	?	?	+	+	0	0	+
PT2	+	+	+	+	0	0	0	+	+	?	?	+	+	0	0	+
PT3	++	++	0	0	0	0	0	+	+	0	0	+	+	0	0	+
PT4	+	++	+	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+	0	0	+/-

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
PT5	+	+	0	+	0	0	0	+	0	0	0	0	0	0	0	0
Public Transport Strategy	++	++	+	+	0	0	0	+	+	?	0	+	+	0	0	+

POLICY ASSESSMENT SUMMARY

Within the Public Transport Strategy there are five policies:

- **PT1** – Working with partner organisations to improve public transport;
- **PT2** – Improved accessibility and attractiveness of public transport as a travel choice;
- **PT3** – Information and ticketing;
- **PT4** – New developments and connectivity to public transport services; and
- **PT5** – Community Rail Partnership.

PT1

It is anticipated that **PT1** will result in minor positive and major positive effects to multiple ISA objectives**. PT1** will likely have a minor positive effect on **ISA1** as the monitoring of effectiveness and value for money will be expected to ensure lower income

groups are not priced out of accessing public transport through maintaining cheaper ticketing. **ISA2** is also likely to experience minor positive effects as a result of **PT1** as funding towards improving existing transport services may involve additional connections and routes, increasing access to employment and improving connectivity in the County. An increase in public transport and its accessibility and attractiveness is likely to reduce the number of private vehicles on the roads, potentially improving air quality and overall health in the area, and so **PT1** is expected to have minor positive effects on **ISA3**. Similarly, a reduced number of private vehicles on the roads as a result of increased public transport provision will likely reduce the number of road traffic accidents, therefore PT1 is anticipated to have minor positive effects on **ISA4**.

The effect **PT1** will have on **ISA5**, **ISA6**, **ISA7, ISA10, and ISA11** is unable to be assessed at this stage as insufficient information is provided as to the nature of improvements to infrastructure and their respective location across the county. For example, improvements to existing public transport services may require land take, which could result in potential negative effects for habitats and biodiversity, as well as negatively affect soil and water quality through sterilisation and contamination during construction and operational phases. Incorporations of biodiversity net gain may result in positive effects for **ISA5, ISA6** and **ISA7**, although remaining effects cannot be determined due to the uncertainty of intervention locations.

PT1 will likely have a negligible effect on **ISA14** and **ISA15** as it will likely not involve the creation of new physical infrastructure, and will largely be focused in towns.

It is anticipated that **PT1** may bring positive effects to **ISA8 and ISA9.** Anticipated positive effects are attributed to the modal shift encouraged and the reduction in private car vehicles on the road. Additionally, improvements in air quality through car reductions contributes to preserving heritage assets, as air pollution contributes to the degradation of assets such as scheduled monuments.

PT1 is anticipated to have minor positive effects on both **ISA12** and **ISA13.** The increased availability of public transport will likely lead to a reduced number of private vehicles on the road, leading to less emission meaning both improved air quality and fewer GHG's being released. Finally, **PT1** will likely have a positive effect on **ISA16**. Reducing the number of private vehicles on the road leading to reduced noise pollution is an anticipated positive effect.

PT2

appraisal results arising from **PT2** may vary depending on the nature and location of projects that come froward, and as a result there are mixed positive and negative as well as some negligible effects identified throughout.

The effects **PT2** will likely have on **ISA5, ISA6** and **ISA7** are negligible. This is because they will mostly effect towns whilst also making use of existing infrastructure, therefore not creating any disruption to habitats. Negligible effects will also be experienced by **ISA14** and **ISA15** as land take will likely not be required to any significant degree.

The effects **PT2** will have on**, ISA10 and ISA11** are unable to be assessed at this stage as insufficient information is provided as to the nature and location of improvements to infrastructure. For example, new stations and interchanges may require land take, which could result in potential negative effects for habitats and biodiversity, as well as negatively affect soil and water quality through sterilisation and contamination during construction and operational phases. Remaining effects cannot be determined due to the uncertainty of intervention locations.

PT2 may have minor positive effects on **ISA1** as improved services and connectivity is likely to make usage easier and will work to reduce isolation, especially for residents in rural areas. **PT2** may have minor positive effects on **ISA2,** as greater connectivity between places and different modes of travel will likely mean greater access to employment and economic hubs like town centres. **PT2** is expected to have minor positive effects on **ISA3** as more public transport will likely reduce the number of private vehicles on the road, improving air quality and therefore overall health in the area. **PT2** is also expected to have minor positive effects on **ISA4** due to its commitment to making cycle parking safer. It is also assumed that any new developments will be designed and built to the most up-to-date safety standards.

It is anticipated that **PT2** may bring positive **ISA8 and ISA9.** Anticipated positive effects are attributed to the modal shift encouraged and the reduction in private car vehicles on the road. Additionally, improvements in air quality through car reductions contributes to preserving heritage assets, as air pollution contributes to the degradation of assets such as scheduled monuments.

PT2 is anticipated to have minor positive effects on both **ISA12** and **ISA13.** An increased capacity for public transport will likely lead to a reduced number of private vehicles on the road, leading to less emission meaning both improved air quality and fewer GHG's being released. Finally, **PT2** will likely have a minor positive **ISA16**, as reducing the number of private vehicles on the road leading to reduced noise pollution is an anticipated positive effect.

PT3

It is anticipated that **PT3** will result in minor positive and major positive effects to multiple ISA objectives**. PT3** is anticipated to bring major benefits to **ISA1,** as not only will more flexible methods of payment be helpful for low income groups, but improved communication and clearer information will aid elderly groups, or those with disabilities, with utilisation of public transport. **PT3** is likely to bring major positive

effects to **ISA2** as more convenient journeys that can involve multiple forms of travel in one ticketed journey may provide new or improved routes to employment opportunities. This will also likely improve economic links within Warwickshire and the wider region.

It is expected that **PT3** will have no effect on **ISA3, ISA4, ISA5, ISA6, ISA7, ISA8, ISA9, ISA10, ISA11, ISA14,** and **ISA15.** As effects would be indirect, a very significant uptake and modal shift would be required to see positive effects, which is unlikely to occur from this policy alone.

PT3 will likely have minor positive effects on **ISA8** and **ISA9** as more attractive public transport may cause less congestion by private vehicles and therefore improve the overall setting of the townscape and landscape. Additionally, this policy will enable a modal shift for people commuting into towns where heritage assets and noise would be affected by cars, allowing for the conservation of these assets.

PT3 is likely have minor positive effects on **ISA12** and **ISA13** as more attractive public transport leading to a reduced number of private vehicles on the road, will result in less emission meaning both improved air quality and fewer GHG's being released. Equally a modal shift away from private vehicles will aid in reducing noise pollution, meaning minor positives are anticipated to be experienced by **ISA16.**

PT4

appraisal results arising from **PT4** may vary depending on the nature and location of projects that come froward, and as a result there are mixed positive and negative as well as some negligible effects identified throughout.

PT4 is anticipated to bring minor positive effects to **ISA1** as the policy states an awareness of future demographic change and an ability to adapt to the growing demand for public transport this will entail. **PT4** is expected to have a major positive effect on **ISA2,** not only by creating better connectivity between places and therefore greater access to employment, but by improving transport to provide a focus for growth and investment in the county. **PT4** may have minor positive effects for **ISA3** as more attractive facilities associated with public transport have the potential to increase uptake, therefore reducing the number of private vehicles on the road, improving air quality and overall health in turn. **PT4** may also have minor positive effects on **ISA4** as improved waiting spaces may have the potential to improve users perceived safety.

The effects **PT4** will have on **ISA5**, **ISA6, ISA7, ISA9, ISA10, ISA11, ISA12** and **ISA16** likely to be mixed positive and negative. The construction phase of new infrastructure involved in this policy will be negative for all present receptors, especially as this is a county wide initiative, and it can be expected that receptors for each ISA will be affected by interventions. However, the operational reality of this policy is expected to bring positive effects to these ISA's through reduction in private vehicle usage enabled through increased public transport.

Effects on **ISA14** and **ISA15** are anticipated to be negligible. The nature of interventions likely to be implemented would be concentrated around areas of existing infrastructure and in urban environments. As a result, adverse effects on agricultural land and soils are not anticipated.

PT4 is anticipated to bring major positive effects to **ISA8**, as new and improved facilities will boost the quality of local centres, improving the townscape and landscape settings. **PT4** is anticipated to have minor positive effects on both **ISA12** and **ISA13.** Increased connectivity of public transport will likely lead to a reduced number of private vehicles on the road, leading to less emission meaning both improved air quality and fewer GHG's being released. Finally, **PT4** will likely have both minor positive and minor negative effects on **ISA16**. While reducing the number of private vehicles on the road leading to reduced noise pollution is an anticipated positive effect, the introduction of more public transport route and vehicles will also contribute to noise pollution, being an anticipated negative effect.

PT5

PT5 is anticipated to have minor positive effects on **ISA1, ISA2** and **ISA4** due to the community improvements that may be brought about as a result of improvements made to stations.

It is expected that **PT5** will have a negligible effect on **ISA5, ISA6, ISA7, ISA8, ISA9, ISA10, ISA11, ISA12, ISA13, ISA14, ISA15** and **ISA16.** This is because improvements to stations will not necessarily increase the use of trains over private vehicles, but will instead work to make stations more useful to the community for more than just travel.

OVERALL STRATEGY SUMMARY

Significant positive effects are anticipated for **ISA1**, particularly as a result of **PT1**, **PT2** and **PT3**. Improvements to public transport will ensure the provision of public transport services are maintained within Warwickshire. This also includes developing new services to improve accessibility. Additionally, improvements to ticketing will reduce confusion among passengers, particularly those with disabilities. Significant positive effects are also anticipated for **ISA2**. Maintaining and improving public transport, including the provision of new services as proposed within **PT2**, will ensure that links to economic hubs and employment areas within Warwickshire are maintained and improved.

Minor positive effects have been identified for **ISA3** as a result of public transport encouraging the modal shift away from private car use and towards public transport. This shift will improve health through improved air quality, but also encourage active travel (such as walking and cycling) to bus stops and train stations. Minor positive effects have also been identified for **ISA4**. Policy **PT2** identifies improvements

through safe cycle parking at bus and train stations. Additionally, it is assumed that new stations will be built with safety measures included within the design. Additionally, minor positive effects have been identified for **ISA16**. This is likely to be particularly relevant to town centres in Warwickshire, where an encouragement of public transport is likely to reduce private car use, and therefore noise. Positive effects have been identified for **ISA12** and **ISA13**. The preservation and enhancement of public transport contributes to the modal shift away from private car use and towards more sustainable transport modes. This development will contribute to improved air quality and GHG levels through emissions reductions. It is noted that the construction phase of these interventions and operational increases in capacity are in many cases likely to be carbon intensive. However, these negative effects are outweighed by the overall positive contribution to county wide air quality and GHG emissions.

Minor positive effects are anticipated for **ISA8** and **ISA9**. Anticipated positive effects are attributed to the modal shift encouraged and the reduction in private car vehicles on the road. This is likely to reduce noise pollution and improve the tranquillity and settings of Warwickshire's landscapes, and particularly in townscapes. However, the development of new rail routes and stations (**PT2**) have the potential to negatively impact the setting of assets and also may alter the landscape, particularly during construction.

Uncertain effects have been identified for **ISA10**. This is due to the lack of description around the proposed new services, stations and interchanges and their nature. These developments have the potential to negatively affect this ISA objective if located in areas of sensitive receptors, for example water courses. However, there is potential that new designs may incorporate biodiversity net gain principles that will aid in potential positive effects. More information is required in order to determine likely effects.

Overall, policies PT2 and PT4 are likely to have the most influence on the ISA objectives, due to the inclusion of likely physical projects. Therefore, effects from these policies on implementation have the most weight (e.g. if schemes demolish woodland to extend a railway station, that effect would outweigh indirect positive effects on biodiversity from increased rail uptake from cheaper tickets).

MOTOR VEHICLES STRATEGY

ASSESSMENT OVERVIEW

Table A-4 below provides an overview of the assessment of strategic policies.

Table A-4 - Motor Vehicles Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
MV1	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
MV2	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
MV3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
MV4	++	++	++	+	+/-	+/-	+/-	+	+	-	-	+	+/-	?	?	+

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
Motor Vehicles Strategy	+	+	+	+	+/-	+/-	+/-	+/-	+/-	+/-	-	+/-	-	+/-	+/-	+/-

POLICY ASSESSMENT SUMMARY

The four policies included within the Motor Vehicles Strategy:

- **MV1** – Using out influence with partners to provide a modern fit-for-purpose route network;
- **MV2** – Increased use of technology in network monitoring;
- **MV3** – Maximising funding options; and
- **MV4** – Making our towns and villages and the routes that connect them better places to be.

MV1

It is anticipated that **MV1** will result in minor positive effects to multiple ISA objectives. **MV1** is anticipated to bring minor positive effects to **ISA1** as the policy states an awareness of future demographic change and an ability to adapt to the growing demand for public transport this will entail. **MV1** will likely have a minor positive effect on **ISA2,** as a more convenient and fit for purpose road network will provide good employment accessibility. The policy also references more sustainable transport choices, and so may bring minor positive effects to

ISA3 a these suggest increased public transport and active travel, meaning a reduced number of private vehicles on the roads, so improved air quality and therefore improved health in the area. Similarly, a reduced number of private vehicles on the road will likely have a minor positive effect on **ISA4** as it could result in fewer road traffic accidents. Additionally, improvements to develop a fit for purpose highway network is likely to contribute to improved safety.

MV1 is, however, expected to have a minor negative effect on the remaining **ISA's 6-16.** This is due to the implication that new road networks will be built, and as a result, landtake will be required which will impact negatively on biodiversity, water and soil quality. Equally, new road networks will allow for greater capacity of private vehicles on the roads, leading to greater emissions, lowered air quality and greater noise.

MV2

MV2 involves data collection to inform future work, which will not bring direct or immediate benefits to any ISA objective but may have the potential to bring benefits in the future. More information on the monitoring programme as well as what would be done with the data is needed to be enable full appraisal of this policy. At this time, all effects have been appraised as uncertain.

MV3

All effects of **MV3** have been found to result in minor positive effects for ISA objectives. The purpose of the policy is to provided funding opportunities to development to promote sustainable transport options and environmental enhancements. As a result the effects of this policy would create conditions where already proposed interventions are mitigated or enhanced in line with sustainability objectives.

MV4

It is anticipated that **MV4** will result in a mix of minor positive and major positive effects to multiple ISA objectives. **MV4** is expected to bring major positive effects to **ISA1**. By retaining disabled access in plans to reduce traffic in towns helps to reduce inequalities, and by improving rural areas to reduce isolation. Major positive effects can also be expected for **ISA2** as a result of **MV4**, as by ensuring connectivity between places there will be greater employability access. Equally, by responding to traffic volume issues congestion may be alleviated making travel time to work shorter. **MV4** will likely have major positive effects for **ISA3**, as by reducing traffic volumes there is an increased opportunity for active travel, therefore promoting healthier lifestyles. As well as this, reduced traffic volumes would improve air quality and health in the area in turn. Similarly, reduced traffic volume would potentially reduce the number of road traffic accidents, and so **MV4** would also bring minor positive effects for **ISA4.**

MV4 will likely have mixed minor positive and minor negative effects for **ISA5, ISA6** and **ISA7.** The policy states an aim to ensure benefits to the environment by providing alternatives to car use. Reductions in car use will likely reduce disturbance to habitats through reduced noise pollution and emissions from congestion. However, potential development in rural/town edge spaces to provide better freight routes and park and ride options are more likely to cause disturbances to habitats and biodiversity, bringing negative effects. **ISA8** and **ISA9** are also likely to experience minor positive effects as a result of **MV4.** By reducing traffic volumes, the policy will work to improve the overall setting of the landscape and townscape.

More information is required to fully assess the effect **MV4** will have on **ISA10**. Following a worse case assumption these effects have been appraised as negative. The impact on water quality will depend on the location of the intervention and the nature of interventions that will be implemented. If construction is required, there is potential for groundwater contamination, run-off into watercourse and changes to channel ecology, hydrology and geomorphology as a result. Additionally, the potential effects of **MV4** on **ISA11** may be negative, as increased capacity for motor vehicles could include new lanes on carriageways or new car parks, which would increase the area of impermeable surfaces in the county and increase flood risk, particularly if interventions are located within flood zone areas.

MV4 is anticipated to have minor positive effects on both **ISA12**. Reduction in traffic volumes will lead to less emission meaning improved air quality. **MV4** will likely have mixed positive and negative effects on **ISA13** as the interventions focusing on providing freight routes and improving car capacity will likely be carbon intensive and lead to more operational emissions due to a capacity increase.

Similarly, **MV4** will likely have a minor positive effect on **ISA16**, the policy outcomes of reduced traffic volumes are expected to lower noise pollution in town centres.

More information is required to fully assess the effect **MV4** will have on **ISA14** and **ISA15**. The impact on land and soils will depend on the location of proposed new infrastructure. At this time these have been appraised as uncertain.

OVERALL STRATEGY SUMMARY

Minor positive effects are anticipated for **ISA1** and **ISA2** as a result of these policies, specifically policies **MV1** and **MV4**.These policies outline continued and improved connectivity within Warwickshire, which will contribute to improving access to town centres and economic hubs, including serving community needs. Similarly, minor positive effects have been identified for **ISA3** and **ISA4**. Minor positive effects on **ISA3** are attributed to the potential for reduced traffic emissions. Improvements proposed within these policies will contribute to the likely reduction in private vehicle usage and therefore improve health. Additionally, reductions in road traffic numbers are likely to improve safety on roads due to lower vehicle numbers. Policies **MV2** and **MV3** specifically contribute to magnifying the positive effects of the

strategy as a whole. This combination creates a more sustainable Motor Vehicles Strategy that is likely to better suit physical and social changes in Warwickshire for the future though do not outweigh the forecasted negative effects discussed below.

Mixed positive and negative effects have been identified as likely for the majority of ISA objectives (**ISA5**-**10**, **12** and **14-16**). This is largely due to the input from policy **MV1**, where the effects are largely negative from the likely new road developments to support other developments in Warwickshire. Policies **MV2**, **MV3** and **MV4** are likely to counteract these negative effects through their potential traffic reductions and associated indirect effects, such as reduced traffic noise. These effects are also contributed to by a reduction in vehicle numbers improving the setting of heritage assets and reducing disturbance within landscapes. Policy **MV4** also contributes to improved traffic within town centres, positively impacting upon the townscape. However, there is potential that new infrastructure developments, such as new park and ride facilities, may negatively impact upon **ISA8** and **ISA9** depending on their scale and location. Additionally, **MV4** outlines potential electric and hydrogen vehicle refuelling options that contribute positively to **ISA12**.

Minor negative effects have been identified as likely for **ISA11** and **ISA13** due to new car based schemes and road developments. The negative effects associated with these, for example the encouragement of car use increasing GHG emissions, the embedded carbon of construction of these developments and the increased flood risk of new road surfaces, outweigh any positive elements of development.

MANAGING SPACE STRATEGY

ASSESSMENT OVERVIEW

Table A-5 below provides an overview of the assessment of strategic policies.

Table A-5 - Managing Space Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
MS1	+	+	+	+	+	+	+	+	+	?	?	+	+	0	0	+
MS2	++	+	+	+	+/-	+/-	+/-	+/-	+	+/-	0	+	+	+	+/-	+
MS3	+	+	+	+	?	?	?	+	+/-	?	?	+	+	?	?	+
MS4	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
MS5	+	0	+	+	0	0	0	0	0	0	0	+	0	0	0	+
MS6	+	+	+	+	0	0	0	0	0	0	0	0	0	0	0	0
Managing Space Strategy	+	+	+	+	+/-	+/-	+/-	+/-	+/-	+/-	?	+	+	+	+	+

POLICY ASSESSMENT SUMMARY

There are six policies within the Managing Space Strategy:

- **MS1** – Increasing sustainable development and travel;
- **MS2** – Travel options which are accessible to all;
- **MS3** – Prioritising use of space to promote sustainable travel options;
- **MS4** – Robust data-led decision making in assessing new developments;
- **MS5** – Construction to best available standards; and

- **MS6** – Influencing planning authorities and developers.

MS1

It is anticipated that **MS1** will result in minor positive effects on all ISA objectives. Traffic management measures might improve traffic volume and congestion, reducing travel time and making access to employment easier, contributing to likely positive effects on **ISA2**. The policy involves providing cycling and pedestrian routes as well as traffic management measurers, facilitating active travel which works to promote healthy lifestyles among residents. Equally, traffic management measurers will likely reduce private vehicle emissions, contributing to improved health through improved air quality and reductions in exacerbations of diseases such as asthma, positively influencing **ISA3**.

Similarly, a reduced number of private vehicles on the road could result in fewer road traffic accidents, resulting in likely positive effects on **ISA4**. **MS1** will likely bring positive effects to **ISA5-7** and **14-15**, as assuming this policy is achieved, it would work to reduce pressures on biodiversity and rural assets. Developments to existing landscape and townscape through the inclusion of new cycling and pedestrian facilities as well as traffic management measures will likely preserve the setting of the area, positively influencing **ISA8** and **ISA9** due to reductions in noise and disturbance. More sustainable travel options provided under this policy will likely work to reduce the number of private vehicles on the roads, reducing congestion and improving air quality (**ISA12**) as well as attributed GHGs (**ISA13**). Similarly, reducing congestion is likely to lower noise pollution in the area (**ISA16**). There is insufficient information provided to fully assess the effects of **MS1** on **ISA10,** and **ISA11.** For example, the provision of cycling and pedestrian facilities and traffic management measures may require land take, which could result in potential negative effects for habitats and biodiversity, as well as negatively affect soil and water quality through sterilisation and contamination during construction and operational phases.

MS2

It is anticipated that **MS2** will result in a mix of minor positive and major positive effects to multiple ISA objectives. **MS2** is anticipated to have a major positive effect on **ISA1**, as it involves accessibility and inclusion of all vulnerable groups. The policy will work to ensure access to a variety of travel options to all. **MS2** is likely to have a minor positive effect on **ISA2, ISA3, ISA4**, **ISA9, ISA12, ISA14, ISA13** and **ISA16**. Improved connectivity involved in the policy will likely enable greater access to employability, likely contributing positive effects to **ISA2**. Various active travel routes becoming better integrated within wider networks will encourage residents' usage of them, promoting healthier lifestyles, positively influencing **ISA3**. The policy may also have positive effects on **ISA4** as it promotes the aim of enabling both residents and visitors to travel around the county safely. There will be an improved quality of townscape and landscape as a result of this

policy, positively effecting **ISA8** and **ISA9** as it sets out that designs and layouts of new developments will contribute to and improve the local area. Greater access to active travel provided under this policy will likely work to reduce the number of private vehicles on the roads, reducing congestion and improving air quality (**ISA12**) as well as attributed GHGs (**ISA13**.) Similarly, reducing congestion is likely to lower noise pollution in the area (**ISA16**.) By ensuring new developments are both accessible and integrated, this policy ensures an efficient use of land, positively influencing **ISA14**

MS2 will likely have mixed positive and negative effects on **ISA5, ISA6, ISA7, ISA8, ISA10** and **ISA15**. This is because any interventions are likely to directly interact with more attractive assets such as boundary woodland and existing footpath networks which would adversely affect them in construction phases, as well as increase footfall in sensitive area. But by providing a positive operational effect by reducing pressures from private vehicle usage as well as minimising the need for road dominated provision for new developments such as new housing developments, there is potential for positive effects.

MS2 will likely have negligible effects on **ISA11** as any associated intervention is not anticipated to increase or decrease flood risk.

MS3

It is anticipated that **MS3** will result in minor positive to multiple ISA objectives **ISA2-, ISA8-9, ISA12-13**, and **ISA16**. In urban areas reducing congestion will improve journey time to work, as well as improved connectivity will mean that workers have more varied travel options to access employment, likely contributing positive effects to **ISA2**. Reducing the number of polluting vehicles in urban areas will likely contribute to improved health through improved air quality, positively influencing **ISA3**. Positive effects may be experienced by **ISA4** as the policy states safer walking and cycling routes as a potential intervention. Reducing private vehicle usage in the city centres will improve the overall setting and usability of the landscape and townscape, positively effecting **ISA8**. The promotion of public transport and aim to reduce car dependency under this policy will likely work to reduce the number of private vehicles on the roads, reducing congestion and improving air quality **ISA12**) as well as attributed GHGs (**ISA13**). Similarly, reducing congestion is likely to lower noise pollution in the area (**ISA16**). By ensuring new developments are both accessible and integrated, this policy ensures an efficient use of land positively influencing **ISA14**. **MS3** is likely to have both positive and negative effects on **ISA9**. The policy implies potential for multiple construction projects in urban areas which would be expected to cause negative effects, but with a positive end result outcome bringing positive effects.

There is insufficient information provided to fully assess the effects of **MS3** on **ISA5-7, ISA10-11, ISA14** and **ISA15**. This is due to uncertainty surrounding the nature and location of potential interventions. For example, interventions aimed to improve connectivity such

as cycle route connectivity may require land take in areas with valuable assets, which could result in potential negative effects for habitats and biodiversity, impact watercourses or take place in areas of valuable agricultural land and soils. More information is needed particularly on and intervention in rural settings.

MS4

MS4 involves data collection to inform future work, which will not bring direct or immediate benefits to any ISA objective but may have the potential to bring benefits in the future. More information on the monitoring programme as well as what would be done with the data is needed to be enable full appraisal of this policy. At this time, all effects have been appraised as uncertain.

MS5

It is anticipated that **MS5** will result in likely minor positive effects on **ISA1, ISA3, ISA4, ISA12** and **ISA16**. These developments are likely to ensure adequate highways for all communities. Roads that are built to the best possible standard might involve less congestion and therefore delays to journeys, increasing ease off access to employment, positively effecting **ISA3**. Reductions in congestion are also likely to result in reductions in noise pollution on heavily congested routes, positively affecting **ISA16**. Similarly, roads built to best standard and to a sufficient standard to be adopted by the county as a public highway must involve quality safety regulations, positively influencing **ISA4**. Carbon reduction embedded into design frameworks will likely result in improved air quality, and attributed health, positively effecting **ISA3**. The embedded carbon reduction within this policy will also likely work to improve air quality (**ISA12**).

There are negligible effects identified for the remaining ISA objectives as the policy outlines measures already being undertaken by WCC and developers. Therefore, the effects on the remaining ISA objectives are determined by the nature of the development, rather than contractor standards.

MS6

It is anticipated that **MS6** will result in minor positive effects to multiple ISA objectives, including **ISA1-4**. The policy states that information regarding disability access on new builds is required from developers to ensure inclusion is maintained, positively influencing **ISA1**. Similarly, information regarding safe routes around schools is required to ensure safety, positively influencing **ISA3**. By keeping major roads in the county efficient, travel times to work will not increase, making it easier for some to access employment, positively influencing **ISA2**. **ISA4** will likely experience positive effects as a result of **MS6**. The policy sets out to avoid travel being rerouted through

neighbourhoods which will likely reduce congestion and emissions, contributing to improved health through improved air quality and reductions in exacerbations of diseases such as asthma.

MS6 will likely have a negligible effect on all other ISA objectives. This is because positive outcomes on these may be likely but will be indirect and hard to measure compared to if this policy wasn't in place.

OVERALL STRATEGY SUMMARY

Minor positive effects are anticipated as a result of policy **MS2** on **ISA1**. Policies **MS1** and **MS2** contribute to this. **MS2** outlines travel options that are accessible to all through design and layout, this also includes improved connectivity between active travel and public transport modes. Increased connectivity and accessibility contribute to positive anticipated effects. Similarly, this policy also contributes to positive effects on **ISA2** through its increased connectivity potential. Improving connectivity also contributes to improving access to economic centres and employment centres.

Minor positive effects are also anticipated for **ISA3** as a result of sustainable transport modes, including walking and cycling, proposed within policies **MS1**, **MS2**, **MS3** and **MS6**. Improved physical activity through the promotion of active travel is likely to result in minor positive effects for health. Similarly, minor positive effects are anticipated for **ISA4** as a result of **MS3**, **MS5** and **MS6**. These policies propose introductions of safer cycling and walking routes across Warwickshire and its town centres.

Mixed positive and negative effects are anticipated for **ISA5-10**. Positive effects on these ISA objectives are attributed to the continued use of land, preserving current landscape and heritage assets. However, the potential proposals for new developments, as outlined in **MS3** and **MS6**, present a risk of possible negative effects as a result of new developments altering the setting of the landscape and heritage assets. The development proposed in **MS2** also is likely to require land take, and therefore result in likely negative effects. The negative effects from these policies are unable to be counteracted by other policies within the strategy, despite a reduction in car use resulting in positive effects on assets such as landscape and heritage assets. Minor positive effects are also likely for **ISA12-13**, and **ISA14**. The promotion of sustainable transport modes within this theme's policies results in likely reductions to road traffic emissions, thus improving **ISA12** and **ISA13**. Additionally, **MS3** includes measures for electric vehicles, low emission zones, and future technologies that all support low carbon initiatives to reduce GHGs, contributing to the anticipated minor positive effects. The positive effects upon **ISA14** are attributed to the policies' effective land use through improving current infrastructure routes.

Minor positive effects are anticipated for **ISA15** and **ISA16**. As previously identified, the policies promote use of land and upgrading current networks, contributing to positive effects on **ISA15**. Additionally, these improvements are based largely in urban centres away

from the best and most valuable agricultural land, preserving valuable soils. The minor positive effects upon **ISA16** are due to the promotion of sustainable transport modes, contributing to the reduction in private car use and therefore reduced noise.

Uncertain impacts have been identified for **ISA11** as the policies do not provide sufficient detail to identify impacts upon this objective, particularly with regard to any future developments and their locations within flood zones, or the reduction of flood risk.

SAFER TRAVEL STRATEGY

ASSESSMENT OVERVIEW

Table A-6 below provides an overview of the assessment of strategic policies.

Table A-6 - Safer Travel Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
ST1	?	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0
ST2	0	+	+	+	+	0	0	0	0	0	0	+	0	0	0	+
ST3	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0
ST4	0	+	0	+	0	0	0	0	0	0	0	+/-	+/-	0	0	+/-
ST5	+	+	+	+	0	0	0	0	0	0	0	+	+	0	0	+

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
Safer Travel Strategy	+	+	0	++	+	0	0	0	0	0	0	0	0	0	0	0

POLICY ASSESSMENT SUMMARY

There are five policies included within the Safer Travel Strategy:

- **ST1** – Working with partners to deliver road safety improvements;
- **ST2** – Evidence-led road safety engineering interventions;
- **ST3** – Wide-ranging community engagement to improve road safety;
- **ST4** – Road engineering design to align with appropriate quality standards; and
- **ST5** – Promoting safety in all travel choices.

ST1

Uncertain effects have been identified for **ISA1** in relation to policy **ST1**. There is a lack of clarity surrounding the possible improvements that may be brought about as a result of the partnership improvements. For example, if engineering works contribute to improving safety

of highways and footpaths, this is likely to have positive effects on **ISA1**. Similarly, improvements to rural networks will also result in likely positive effects. However, at this stage it is unclear what any likely interventions may look like, or what the focus of partnerships and WCC improvements are specifically.

Minor positive effects are likely for **ISA4** due to the partnership approach outlined in **ST1**. This approach will ensure cohesive improvements that are likely to benefit all travel users, including drivers, pedestrians and those using public transport. These measures are also likely to improve not only physical safety, but also perceived safety of users, including after dark.

A large number of negligible effects have been identified for **ST1** due to the policy's focus on safety for targeted behavioural interventions and minor specific physical interventions to deal with safety concerns. This makes the policy unlikely to have effects (direct or indirect) upon the majority of ISA objectives.

ST2

Policy **ST2** is likely to contribute to minor positive effects upon **ISA4** through its safety approach. The measures within this policy contribute to overall reductions in collisions on Warwickshire's roads, with an evidence-led approach to support further improvements, as well as improving the safety of all road users.

Minor positive effects are also anticipated for **ISA2**. The proposed approach includes measures of traffic calming and speed management. Whilst not directly related to **ISA2**, traffic management initiatives are likely to contributed to reduced congestion on Warwickshire's roads, and therefore improve the reliability of journey times for road users. This is particularly relevant to those who commute by private car. Additionally, reductions in congestion such as these can contribute to lowering stress levels of drivers in the County, contributing to improvements in health and the minor positive effects likely for **ISA3**.

ISA3 is also likely to experience minor positive effects as the initiatives proposed, including traffic calming, are likely to contribute to improvements in air quality through reduced traffic levels and lower congestion, improving air quality. This subsequently contributes to the minor positive effects likely for **ISA12**, as well as improving health. These health benefits through improved air quality are likely to be experienced on heavily congested routes, or junctions, and positively impact local residents. As well as positively influencing these ISA objectives, traffic calming initiatives and speed management measures are also likely to positively effect **ISA16**, through the same congestion reductions reducing noise. A reduction in noise is also likely to minimise disturbance to biodiversity (**ISA5**) and result in likely positive effects.

ST3

Policy **ST3**, in its current form, is unlikely to affect most ISA objectives, other than **ISA4** due to the policy's heavy focus upon safety improvements. The policy focuses on improving community engagement and awareness of road safety, resulting in minor negative effects on **ISA4**. However, in its current form, this policy does not contribute to likely effects on any other ISA objective as this policy does not practically implement any physical changes to the transport network.

ST4

Policy **ST4** is likely to have minor positive effects on **ISA2** as a result of indirect effects. These effects are likely to improve journey times and connectivity with new road constructions.

Minor positive effects have been identified as being likely for **ISA4**. This policy outlines safety improvements to existing roads, improving the focus on safety. This is also likely to improve safety through reducing the number of accidents on Warwickshire's roads and reducing the number of people killed and seriously injured on roads within the county. Additionally, these improvements may include lighting improvements, improving perceived safety for users of the network.

Mixed positive and negative effects are anticipated for **ISA12**, **ISA13** and **ISA16**. The likely positive effects are anticipated as a result of improvements within the network reducing congestion and traffic, therefore reducing GHG emissions through idling time reductions and subsequently improving air quality. Similarly, this contributes to reductions in noise in congested areas. However, any new development, as is proposed within **ST4**, is likely to contribute to construction related emissions that temporarily increase GHG emissions and reduce air quality, as well as contributing increases in noise and vibration.

Negligible effects have been identified as likely for **ISA5**-**11**, **ISA14** and **ISA15**. This is due to the focus of the policy upon safety and improvements when new highways projects are developed. Therefore, at its current stage these ISA objectives are unlikely to be affected.

ST5

Minor positive effects are anticipated upon **ISA1** as a result of improvements to public transport services, bus stops and stations, as well as active travel routes. The improvements to this infrastructure, despite being safety focussed, may also allow for improvements to accessibility, for example, improving footpaths and bus stops for disabled or elderly users. Additionally, improving safety on these networks is likely to result in increased usage and improved connectivity for socially isolated groups who may have previously felt unsafe

on these services. Similarly, this increased uptake contributes to minor positive effects that are likely for **ISA2**. As with improvements in uptake, more community members will have improved access to economic and employment areas.

Improvements to public transport uptake as a result of safety improvements is also likely to have minor positive impacts upon **ISA3** as a result of encouragement of the modal shift away from private car use and improving air quality (**ISA12**). Increasing the safety of public transport services will likely make them more attractive to use, reducing the number of cars. This is also likely to have a positive effect on **ISA13** through a reduction in car use. This also contributes to likely positive effects on **ISA16**.

Likely minor positive effects are anticipated for **ISA4** through the outlined safety improvements to buses, rail services, and active travel routes. These improvements will likely not only improve physical safety, but also perceived safety.

OVERALL STRATEGY SUMMARY

Minor positive effects have been identified for **ISA1** and **ISA2** as a result of the Safe Travel strategy. Policies **ST5** and **ST3** contribute to the likely positive effects on **ISA1** as these include community engagement to ensure that improvements are appropriate to a range of social groups, including children and cyclists. Additionally measures outlined within **ST5** detail improvements to the safety of public transportation services – these services are often utilised by those who may be disadvantaged or cannot afford a private car, or those younger and older in society. These inclusions in community engagement and public transport are likely to positively influence **ISA1**. Additionally, the improvements outlined throughout the policies in Safer Travel provide an opportunity to reduce congestion on Warwickshire's roads and improve the reliability of travel times into employment areas, resulting in minor positive effects on **ISA2**.

Significant positive effects on **ISA4** are likely as a result of all policies within this Strategy. These policies focus on improving safety, both through road improvements to reduce accidents and the number of killed and seriously injured on roads, as well as improving safety on buses and rail services and facilities. The improvements also include improving cycle and pedestrian routes. All policies, working in combination, contribute to these likely significant positive effects, with many of the improvements also improving the perceived feeling of safety among the community.

Negligible effects are likely for **ISA6**-**16**. This is due to the focus of policies upon safety. Effects on these ISAs would be very minor and indirect and be associated only with specific interventions on safety improvements, rather than safety standards on other interventions.

Additional minor positive effects have been identified as likely for **ISA5**. A reduction in traffic volumes and speeds, as outlined through Safer Travel Strategy policies, is likely to not only reduce the number of traffic collisions, but also reduce the number of collisions with biodiversity in Warwickshire.

FREIGHT STRATEGY

ASSESSMENT OVERVIEW

Table A-7 below provides an overview of the assessment of strategic policies.

Table A-7 - Freight Strategy Overview

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
F1	0	+	+	+	+/-	+/-	+/-	+/-	+/-	+/-	?	+	+	+/-	+/-	+
F2	0	+	+	0	0	0	0	0	0	0	0	+	+	0	0	+
F3	?	++	0	+	-	-	-	-	-	-	-	-	-	-	-	-
F4	0	++	+	0	-	-	-	-	-	-	-	+/-	-	-	-	+/-

	ISA1: Equality & Inclusion	ISA2: Economy	ISA3: Health	ISA4: Safety	ISA5: Biodiversity	ISA6: Natural Capital	ISA7: Ecosystem Services	ISA8: Landscape & Townscape	ISA9: Historic Environment	ISA10: Water Quality	ISA11: Flood Risk	ISA12: Air Quality	ISA13: Climate Change & GHGs	ISA14: Land Use & Waste	ISA15: Soils	ISA16: Noise and Vibration
F5	+	+	+	+	0	0	0	+	+	0	0	+	+	0	0	+
F6	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0
F7	+	++	+	+	+	+	+	+	+	+	0	+	0	0	0	+
Freight Strategy	0	++	+	+	-	-	-	+/-	+/-	-	-	-	-	-	-	+/-

POLICY ASSESSMENT SUMMARY

There are seven policies included within the Freight Strategy:

- **F1** – Promote shift from road to rail and active travel modes;
- **F2** – Facilitate the transition to alternative fuels for freight vehicles;
- **F3** – Support efforts to deliver a better network of lorry parking in the county;

- **F4** – Support and deliver initiatives that improve journey time reliability for freight movements;
- **F5** – Reduce the impact of 'last mile' deliveries;
- **F6** – Reduce incidents involving freight vehicles;
- **F7** – Encourage freight vehicles to use appropriate routes.

F1

Minor positive effects are anticipated upon **ISA2-4**. Policy **F1** includes the promotion of sustainable transport modes, and improved infrastructure, which will improve the reliability of the transport network, ensuring freight delivery time, as well as improving the connectivity of the Warwickshire region with the wider UK economy. As a result of sustainable transport modes, especially electric vehicles, there will likely be a reduction in freight emissions, contributing to improved health through improved air quality and reductions in exacerbations of health conditions. As well as this, a shift to sustainable modes is likely to reduce freight noise within Warwickshire. Additionally, improvements to the transport network to support these modes are likely to improve safety through developments and reduce accidents involving freight vehicles.

Minor positive effects are also anticipated for **ISA12-13** and **ISA16** through the reduction in traditional petrol and diesel powered freight vehicles. Encouraging sustainable transport, such as electric vehicles, and improving networks to reduce congestion is likely to improve air quality across Warwickshire's freight routes, reduce freight attributed GHGs and lead to reduced noise levels.

Mixed positive and negative effects have been identified for **ISA5**-**9**, **14** and **15**. This is due to the anticipated modal shift away from road vehicle use as encouraged by the policy. However, there is likely to be a requirement for rail interventions or road based infrastructure to facilitate this transition. Construction of these developments would be carbon intensive and potentially result in temporary localised degradation of air quality.

Uncertain effects have also been identified for **ISA11** due to the uncertainty surrounding potential rail interventions, and their scale. More detail is required to appraise this and any effect on flood risk.

F2

Minor positive effects are anticipated upon **ISA2** as a result of policy **F2**. Improvements of refuelling and charging facilities will contribute to improving streamlined freight journeys, and reliable journey times through a comprehensive fuelling network. This will also contribute to growing the regional economy through improving links with the wider economy and freight routes.

Minor positive effects have also been anticipated for **ISA3**, **ISA12**-**13** and **ISA16**. Improvements to recharging facilities will contribute to encouraging sustainable freight vehicle usage, such as electric vehicles. This usage is likely to contribute to improving air quality and reducing GHGs and emissions attributed to freight vehicles. This subsequently improves health, particularly on those routes used heavily by freight vehicles. Similarly, encouragements to utilise electric vehicles contributes to reduced freight vehicle noise.

All other effects have been appraised as negligible, any transition would not necessarily alter vehicle numbers and the associated pressures on biodiversity, landscape, water and heritage asset. Conversely, infrastructure to implement said interventions (namely charging stations) is likely to be small scale and concentrated on existing facilities, thereby not resulting in negative effects on these ISA objectives.

F3

Minor positive effects are anticipated upon **ISA2** as a result of policy **F3**. The improvement of lorry parking facilities will aid in ensuring Warwickshire is connected with the UK through lorry freight, encouraging drivers to park overnight within the County, contributing to reliable journey times and ensuring the consistency of freight deliveries. As a result of these safety improvements to lorry parking, minor positive effects are also likely upon **ISA4**. This policy focuses specifically on improving the safety of lorry parks, and perceived safety, and therefore results in likely minor positive effects.

Minor negative effects are likely for **ISA5**-**16** due to the likely impact of developing new lorry parking infrastructure. These new developments are likely to be in rural areas/boundaries of towns in Warwickshire and take up large areas of land for development, resulting in negative effects for many of the ISA objectives, particularly through habitat disturbance and altering the setting and tranquillity of landscapes and heritage assets, increases in flood risk and creation of new sources of noise, air quality and GHG emissions. The addition of lorry parking facilities encourages the continuation of lorry freight as Warwickshire's primary freight movement. This is likely to increase the number of lorries on Warwickshire's roads and work against policy **F1**.

Uncertain effects have been identified for **ISA1** due to the uncertainty surrounding the location of said interventions and the effects these may place on disadvantaged groups.

F4

Policy **F4** is likely to result in minor positive effects upon **ISA3** through likely reductions in congestion improving air quality at these locations, and thus health, as well as likely reducing the number of road traffic accidents on current road networks utilised by freight vehicles. It is assumed that new SRN and MRN developments will be designed to the most up-to-date design codes to ensure safety.

Significant positive effects are likely for **ISA2** as a result of the significant improvements to infrastructure within Warwickshire, improving reliability of journey times for freight vehicles. Further to this, improvements to the network are likely to improve connectivity between the County, wider region and the UK, encouraging economic growth. Improvements to the network for the purpose of freight improvement also provides the opportunity for residents to utilise these upgraded networks, improving accessibility to economic hubs and employment areas.

Minor negative effects have been identified as being likely for **ISA5-11, ISA13-15**. The expansion of the SRN and other road improvements is likely to encourage use road based freight, as well as private car use as journeys will be easier. This will likely overall result in a longer term increase in GHG emissions due to traffic and freight, contributing to negative impacts. Additionally, interventions to support expansion will adversely effect nearby biodiversity, heritage, water and agricultural assets in proximity to the roads. Flood risk will also be increased due to the increased surface area of roads and landscape character and views will be further degraded by construction and operation of expanded roads.

Mixed positive and negative effects are likely for **ISA12** and **ISA16**. This is due to potential positive effects from reducing congestion, reducing idling emissions and noise pollution, particularly on heavily used routes. However, the encouragement of road based freight is likely to result in long term increased noise and worsening air quality due to an increase in the number of freight lorries using the network.

F5

Minor positive effects are anticipated for **ISA1** as a result of the proposed last mile improvements within policy **F5**. The timing of deliveries to fit local communities is likely to improve delivery services of goods and provide reliability benefits to local communities. Additionally, the removal of unnecessary delivery vans is likely to see positive effects upon **ISA1** as delivery vans commonly park on footpaths when delivering, negatively impacting local communities. Therefore, minimising van proliferation may improve accessibility and journeys for

those with disabilities. Similarly, the removal of unnecessary vans will likely improve safety (**ISA4**) on footpaths and roads as there are likely to be reductions in collisions as vans may be parked in incorrect areas.

Improving the reliability of last mile deliveries will likely have minor positive impacts upon **ISA2** due to continued goods delivery services, whilst improving efficiency and saving costs, creating an economic benefit. The promotion of active travel goods delivery services is also likely to have a minor positive effect on **ISA3** through increased physical activity rates.

Minor positive effects have also been anticipated for **ISA8**-**9**, **ISA12**-**13** and **ISA16**. The reduction in unnecessary vans is likely to contribute to improving the setting of landscape, townscape and the historic environment through reduced noise, and reductions in parking congestion or issues caused by parked vans. Additionally, reductions in vans are likely to reduce noise and emissions, improving air quality and reducing GHGs.

As this policy and intervention would be focused in towns and other urban areas, negligible effects on biodiversity, water and agricultural/soil assets (**ISA5-7**, **ISA10** and **ISA14-15**). Additionally, the lack of physical infrastructure required to facilitate the policy would result in no noticeable change to Flood Risk in Warwickshire (**ISA11**).

F6

Minor positive effects are anticipated for **ISA4** as a result of policy **F6**. The policy focuses on improving safety of Warwickshire's roads, reducing collisions and therefore likely reducing the number of people killed and seriously injured on Warwickshire's roads and is heavily safety focussed. As a result of this, all other ISA objectives are unlikely to be affected, resulting in negligible effects.

F7

As a result of minimising HGVs using unsuitable roads, minor positive effects are anticipated for **ISA1**. This is due to increased usability of local highways from local communities with minimal HGV traffic.

Minor positive effects are also anticipated for **ISA2** due to this policy improving HGV routes, therefore minimising traffic and improving journey times through utilisation of appropriate highways. Additionally, residential journey times are likely to be improved through a reduction in HGV traffic. Shorter, easier journey times is also likely to reduce stress and congestion among both HGV drivers and residential drivers, contributing positively to health (**ISA3**). Improvements in air quality through HGV reduction on rural roads is also likely to contribute to positive effects on health.

It is anticipated that minor positive effects are likely for **ISA4** through the reduction in HGVs using inappropriate routes, there is likely to be a reduction in the likelihood of collisions on smaller roads within Warwickshire. Additionally, safety of pedestrians on footpaths is likely to be improved with an absence of HGVs risking mounting pavements.

Minor positive effects are likely for **ISA5**- **10** due to this policy. Reducing the number of HGVs on unsuitable roads in Warwickshire is likely to reduce disturbance to habitats, species, designated sites and water bodies located close to roads, particularly in rural areas. Similarly, the reduction is likely to contribute to improved settings of heritage assets, such as scheduled monuments, as well as improving the landscape setting through minimising noise disturbance on smaller, rural routes.

Minor positive effects are also anticipated for **ISA12** and **ISA16**. Positive effects are anticipated through reductions in noise as a result of HGVs on rural, unsuitable routes. Similarly localised AQ improvements would be seen and through a more efficient routing of vehicles easing congestion on unsuitable roads.

Negligible effects on **ISA11** and **ISA13-15**. No changes to flood risk (**ISA11**) or pressures on agricultural and soil assets (**ISA 13-14**) would result from the policy as infrastructure conditions are not being altered. Similarly, GHGs would likely reduce slightly through increased efficiency but the level of change would be unlikely to be measurable compared to existing conditions.

OVERALL STRATEGY SUMMARY

All policies will contribute to the strategy's significant positive effects on the economy (I**SA2**) through improving the reliability of journey times, increased efficiency, increased capacity and improving the resilience/diversity of the freight network. Improvements identified within these policies include congestion reductions, support for lorry drivers, and support for reliable journey times. The effects on ISA1 of the strategy have been determined to be negligible. The scope of interventions, while not in most cases adversely affecting receptors (with the exception of potentially F3), will not lead to measurable improvements in conditions for disadvantage groups.

Regarding **IS3**, policies are likely to reduce accidents on highways, as well as improve safety for lorry drivers and other road users due to congestion reduction, and appropriate road use. Similarly, measures are included to promote non-road based delivery, use of appropriate routes and utilising active travel for last mile deliveries. The combination of these effects contributes to an overall positive effect of the strategy on **ISA3**. However, this effect is limited as many groups of the population would not take part in these modes, or jobs, and therefore result in likely negligible effects.

Minor negative effects are anticipated for **ISA12** and **ISA13**. Multiple policies within the Freight Strategy work to encourage increased road based freight across Warwickshire. Despite appropriate routing of freight vehicles, and encouragement of rail and active travel alternatives, GHG emissions (**ISA13**) will increase as a result of the strategy as well as accompanying increases in air pollution (**ISA12**).

Mixed positive and negative effects have been likely identified for **ISA16**. These effects are attributed to anticipated noise reductions through reduced freight congestion, and not utilising congested routes. However, there may be increased noise as a result of any additional work to improve infrastructure in policy **F1** and **F4**. Mixed positive and negative effects re also likely for **ISA4** due to the improvements in freight routing improving road safety. However, there are likely to be increases in overall freight movement throughout the county that is likely to contribute to possible increases in collisions, particularly on the SRN. Mixed positive and negative effects have also been identified as likely for **ISA8** and **ISA9**. The positive effects in this case is due to the improvements in freight routing, resulting in improvements to the setting and tranquillity of landscape and heritage assets, particularly in urban areas, through a reduction in noise pollution. However, the policies within this strategy encourage the use of road freight, which is likely to increase overall vehicle movements and associated noise pollution. Therefore negatively affecting setting and tranquillity of landscape and heritage assets along the SRN.

Minor negative effects have been identified as likely for **ISA5-7, ISA10**-**11** and **ISA14**-**15**. This is due to the policies within the freight strategy facilitating an increase in road based freight in Warwickshire. This increase includes associated infrastructure which is likely to require land take, particularly in rural areas for lorry park facilities, and result in increased pollution events for water bodies and protected especially where roads and developments are located close to these assets. Biodiversity in proximity to the SRN is also likely to be adversely affected by increased collisions and noise from increased freight numbers using these roads. Additionally, any increase in impermeable surfaces is likely to contribute to increased flood risk and no policy within the freight strategy minimises this risk.

Appendix B

EQUALITIES IMPACT ASSESSMENT

Quality control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft for Client Review	Updated following Client Review	Final for Consultation	
Date	July 2022	July 2022	September 2022	
Prepared by	Emily Bonnet	Emily Bonnett	Charlotte Town	
Signature				
Checked by	Correne Murray	Jerome Kreule	Katie Dean	
Signature				
Authorised by	Sophie Collins	Sophie Collings	Sophie Collins	
Signature				
Project number	70096755	70096755		
Report number	1.0	1.1		

Contents

Tables

Figures

1 INTRODUCTION

1.1 Overview

1.1.1. Warwickshire is a county in the West Midlands, England. It is located south-east of Birmingham and includes the towns of Atherstone, Nuneaton, Bedworth, Rugby, Kenilworth, Royal Leamington Spa, Stratford-Upon-Avon and Warwick.

1.1.2. Warwickshire County Council (WCC) is in the process of updating the current Local Transport Plan (LTP), LTP3[1], which came into effect in 2011 and covers the period 2011-2026. The updated LTP will come into effect in 2023 and then be reviewed after a maximum of five years.

1.1.3. LTP4 is being developed to allow WCC to address new and emerging transport needs. LTP4 will identify transport policies and strategies needed to manage and maintain Warwickshire's transport network in a safe, sustainable and integrated way. The proposed main themes for LTP4 are environment, economy, place and wellbeing.

1.2 Integrated Sustainability Appraisal

1.2.1. An Integrated Sustainability Appraisal (ISA) has been undertaken to ensure that sustainability aspects are incorporated into the LTP. The ISA enables synergies and cross-cutting impacts to be identified and avoids the need to undertake and report on separate assessments and seeks to reduce any duplication of assessment work. This process also helps to simplify outcomes and recommendations for policymakers.

1.2.2. As part of the ISA, an Equalities Impact Assessment (EqIA) has been undertaken to assess from an equality perspective the impacts and likely effects of policies in the LTP on different groups protected by equalities legislation, notably the Equalities Act 2010. It will also seek to identify whether such policy categories might have an adverse impact on equality of opportunity.

1.2.3. The outcomes of the EqIA have informed the ISA.

[1] Warwickshire County Council, Warwickshire Local Transport Plan (LTP3) 2011 [online] available at: https://www.warwickshire.gov.uk/directory-record/2149/local-transport-plan-2011-2026.

2 LEGISLATION

2.1.1. The Equality Act 20102 provides a legal framework to protect the rights of individuals that share defined "protected characteristics" from discrimination (being treated worse than someone else because of who they are). The Equality Act 2010 also introduced the Public Sector Equality Duty (PSED) on all public authorities. In fulfilling this duty, the County Council in all its activities must have 'due regard' to the need to:

- eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act.
- advance equality of opportunity between people who share a protected characteristic and those who do not.
- foster good relations between people who share a protected characteristic and those who do not.

2.1.2. In addition, the Act states that, when making decisions, an authority must consider methods to reduce any inequalities which may arise for those from a disadvantaged socio-economic background.

2.1.3. The "protected characteristics" which identify the groups who may be disproportionately impacted upon or discriminated against are outlined in **Table 2-1.** Protection extends to those who are perceived to have these characteristics or who suffer discrimination because they are associated with someone who has that characteristic, e.g. cares for someone with a disability.

Table 2-1 – Protected groups listed under the Equality Act 2010

Protected Characteristic	People and Aspects Included
Sex	Men and women; parenting, caring, flexible working and equal pay concerns.
Religion or belief	Religion refers to any religion, including a lack of religion. Belief refers to any religious or philosophical belief and includes a lack of belief. Generally, a belief should affect your life choices or the way you live for it to be included in the definition.
Age	Children (0-16), young people (17-25), working age people (15-64) and elderly people (65 and over).
Disability	People who have a physical or mental impairment which has a substantial and long-term adverse effect on that person's ability to carry out normal day-to-day activities. This includes sensory, visible or hidden impairments (e.g. cancer, HIV, dyslexia).

[2] The Stationary Office, Equality Act 2010. Available at: http://www.legislation.gov.uk/ukpga/2010/15/pdfs/ukpga_20100015_en.pdf (Accessed: 17 January 2022)

Protected Characteristic	People and Aspects Included
Race	Refers to a group of people defined by their race, colour, and nationality (including citizenship) ethnic or national origins. The Census categories can be used for reference, e.g. White British, Chinese, British Asians, Travellers, Gypsies, Roma, those who are of Caribbean origin, people of mixed heritage, White Irish communities, and people of other nationalities who reside in Britain.
Sexual orientation	Includes a wide range of sexual orientations, including but not limited to; heterosexual/straight, gay, lesbian, bisexual, asexual, pansexual
Gender reassignment (Transgender)	Anyone who is proposing to undergo, are undergoing or have undergone a process for the purpose of reassigning their sex, this includes non-binary people as well.
Pregnancy and maternity	People who are pregnant – protection against maternity discrimination (including as a result of breast feeding).
Marriage and civil partnership	People who are married or are in civil partnerships
Deprivation *	People at risk of socio-economic disadvantage.

* Although it is not included as a protected characteristic within the Equality Act 2010, deprivation has been included in the assessment as the Act also requires due regard to reducing the inequalities of outcome which result from socio-economic disadvantage.

3 EQUALITY IMPACT ASSESSMENT (EIA)

3.1 What is an EIA?

3.1.1. An EIA considers the impact of your proposed activity on persons or groups of persons who share characteristics which are protected under section 4 of the Equality Act 2010 ("protected characteristics") and might also include others considered to be vulnerable within society such as low-income groups. It is an information gathering tool which enables decision makers within public bodies to implement their equality duty under the Equality Act 2010.

3.1.2. An EIA guides decision makers and designers to:

- Consider the effects of existing and proposed activity on people who share a “protected characteristic”; and
- Identify opportunities to improve equality of opportunity and eliminate discrimination.

3.1.3. An EIA should be carried out before making decisions, to inform and shape the outcomes. They should be updated throughout the decision-making process as necessary, as the proposed activity is developed.

4 SOCIAL PROFILE

4.1 Introduction

4.1.1. A social profile for Warwickshire has been compiled from publicly available data to provide context for the assessment. This comprises information on the following:

- Protected characteristic groups (PCGs);
- Local communities; and
- Sensitive receptors, local community facilities and public transport.

4.2 Local Community and Facilities

Warwickshire Community and Character

4.2.1. Warwickshire is a county situated in the West Midlands, South-East of Birmingham and consists of Atherstone, Nuneaton, Bedworth, Rugby, Kenilworth, Royal Leamington Spa, Stratford-Upon-Avon and Warwick. Warwickshire is best known for being the birthplace of William Shakespeare as well as Victorian novelist George Eliot, making it a cultural landmark for British literature.

4.2.2. The county is a site of significant medieval history, being home to Warwick Castle, and Kenilworth Castle. Both of these showcase important architectural progress in the middle ages from the 10th to 12th century and are the best surviving examples to display and understand royalty through the medieval era. Warwickshire is also an area of great scenic value, with 23 local nature reserves, including 10 country parks.

4.2.3. Warwickshire town has a variety of places to shop including Warwickshire shopping park, Hatton shopping village, Leamington shopping park and Arena shopping park. As well as these, Warwick district holds regular markets, where seasonal producers, artisan traders and antique vendors are all on offer.

4.2.4. Warwickshire offers a range of transport facilities to serve its residents. These include an extensive bus network and timetable with over five different operators running, 19 train stations countywide with major station Warwick having bus connections to nearby big towns such as Coventry, Kenilworth and Leamington Spa, and both a park and ride and parkway in Stratford with over 700 parking spaces, allowing users to take connecting buses or trains onwards to their destination. There are cycle routes mapped in each of the five major districts of the county, as well as numerous walkways to enhance active travel in the area. Finally, a community car share initiative exists within the county, particularly in Birch Coppice.

4.2.5. All new developments should drive up the quality of design, constructed to the highest safety standards and improve the county's built environment and liveability.

4.2.6. Further information on the county and sensitive receptors:

Home:

- The median house price in Warwickshire is 8.9 times the median income level in the local authority[3].The Office for National Statistics (ONS) reports that the median price paid for homes at the end of September 2021 was £226,995 in the West Midlands.[4]

Businesses:

- Over 27,695 businesses operate in Warwickshire, split across sectors such as agriculture, construction, retail, property, and administration services. The largest portion at 19% are involved in professional, scientific and technical activities.[5]

Social infrastructure:

- Warwickshire has 7 NHS hospitals;
- There are 61 sixth form colleges, 77 secondary schools and 248 primary schools[6]; and
- Warwickshire also holds the major UK University of Warwick, as well as the smaller WCG with campuses across the county.

4.3 Protected characteristics profile

4.3.1. Data from the Office of National Statistics (ONS) has been gathered on the following protected characteristics from Section 4 of the Equality Act 2010:

- Sex;
- Religion;
- Age;
- Disability;
- Race;
- Sexual orientation;
- Pregnancy and maternity;
- Marriage and civil partnership; and
- Gender reassignment.

[3] ONS (2022) House price to workplace-based earnings ratio [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian (Accessed 06/07/2022).

[4] ONS (2022) Median house prices for administrative geographies: HPSSA dataset 9 [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09 (Accessed 06/07/2022).

[5] ONS (2022) UK business: activity, size and location [online] Available at: https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation (Accessed 06/07/2022).

[6] GOV.UK (20190 All Schools and Colleges in Warwickshire [online] Available at: https://www.compare-school-performance.service.gov.uk/schools-by-type?step=default&table=schools&region=937&geographic=la&datasetFilter=final&for=16to18 (Accessed 06/07/2022).

4.3.2. Certain protected characteristics, including sexual orientation, gender reassignment, pregnancy and maternity, and marriage and civil partnerships have not been included in the baseline due to a lack of publicly available data at the time of writing. Although not a protected characteristic under the Equality Act 2010, the social profile also includes data on deprivation as it provides a measure of a combination of social-economic metrics.

4.3.3. It should be noted that the most recent Census taken in 2021 and has been used to provide population data where possible. However, as this data is still emerging the 2011 Census has been used where data has not yet been published and substituted with more recent information where possible. Percentages may not add up to 100% with rounding.

4.4 Sex and gender

4.4.1. The total population in Warwickshire was recorded in 2021 as 596,800 people. Within the county approximately 49.4% of the population were recorded as male and 50.6% as female, which is comparable with the male and female percentage for the West Midlands of 49.6% and 50.4%[7]. The gender profile in the Warwickshire area is largely representative of the national average, as shown in **Table 4-1.**

Table 4-1 – Sex and Gender Profile

Sex	Warwickshire	West Midlands	England
All people (total no)	596,800	5,950,800	56,489,800
Male (%)	49.3%	49.2%	49.0%
Female (%)	50.7%	50.8%	51.0%

4.5 Religion

4.5.1. As stated in the 2011 Census, of those in Warwickshire who identify with a religion, the majority identify as Christian (64.5%), which is in line with the national trend[8]. There proportion of Muslims in Warwickshire is smaller than the national average by 3.9%. The second largest proportion of the population identify as having no religion (24.1%) as shown in Table 4-2**.**

[7] Population and household estimates, England and Wales: Census 2021 [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhouseholdestimatesenglandandwalescensus2021 (Accessed: 25/07/2022).

[8] NOMIS (2011) QS210EW - Religion [online] Available at: https://www.nomisweb.co.uk/census/2011/qs210ew (Accessed: 06/07/2022)

Table 4-2 – Religion Profile

Religion	Warwickshire		England %
	Number in 2011	% Total pop in 2011	
Christian	351,891	64.5%	59.4%
Buddhist	1,733	0.3%	0.5%
Hindu	5,699	1%	1.5%
Jewish	505	0.1%	0.5%
Muslim	5,820	1.1%	5%
Sikh	9,434	1.7%	0.8%
Other Religion	2,008	0.4%	0.4%
No religion	131,408	24.1%	24.7%
Religion not stated	36,976	6.8%	7.2%

4.6 Population and age

4.6.1. The total population of the Warwickshire area was recorded in in 2021 as 596,800 people[7]. According to the 2021 Census, Warwickshire has an older age structure to England and the West Midlands, with 20.8% of the population aged 65+ compared to 18.7% in the West Midlands and 18.5% England. The age category with the greatest percentage of the population in the Warwickshire area is 16-64 years at 61%%. This is lower than both the West Midlands average and England average, due to these locations having a greater percentage of people aged 0-15 than Warwickshire at 19.6% and 19.2% respectively compared to Warwickshire's smaller 18.3% (**Table 4-3**[9]).

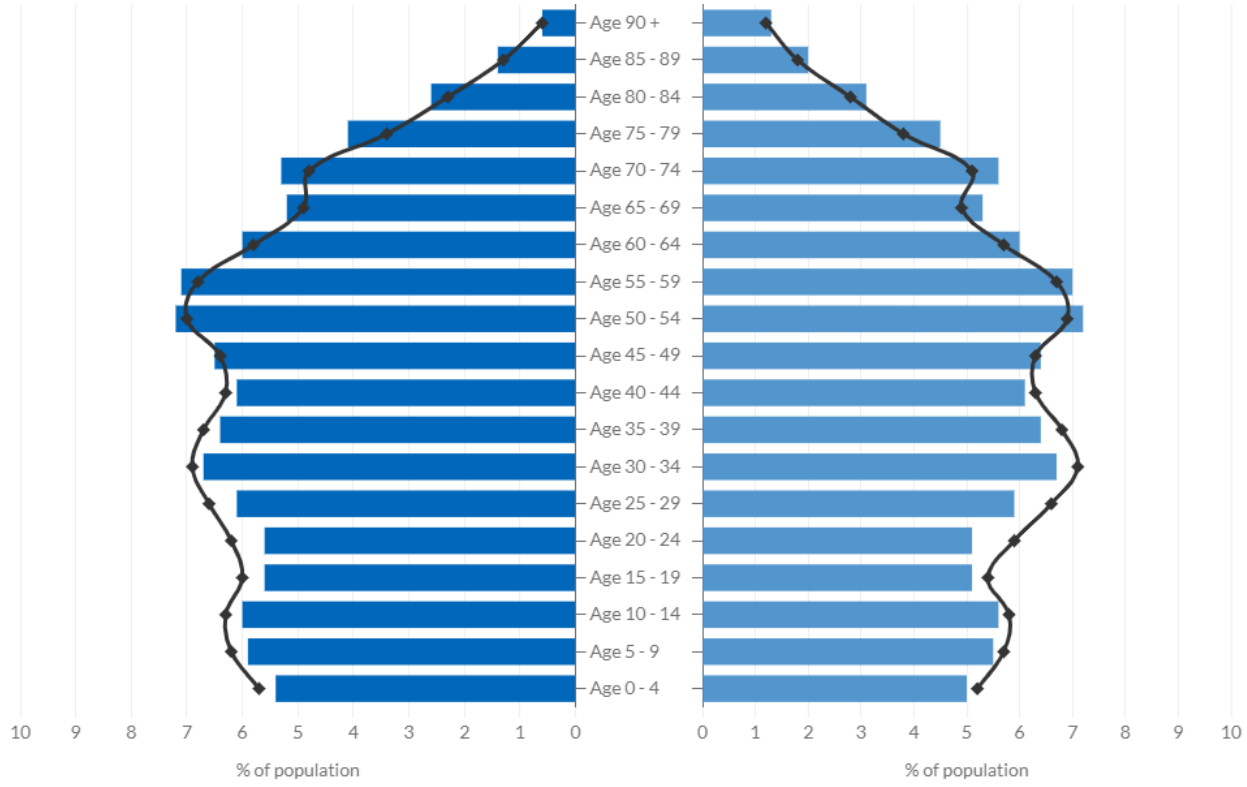
4.6.2. **Figure 4-1**[9] shows the population pyramid of Warwickshire population in 2019.

[9] WCC Population – Warwickshire [online] Available at: https://data.warwickshire.gov.uk/population/reports/#/viewreport/63aeddf1d7fc44b8b4dffcd868e84eac/E10000031/G3 (Accessed: 25/07/2022).

Table 4-3 –Age Profile[9]

Age	Warwickshire		West Midlands %	England %
	Number in 2021	% Total pop in 2021		
0-15 years old	106,704	18.3%	19.6%	19.2%
16-64 years old	355,847	61%	61.7%	62.3%
65+ years old	121,235	20.8%	18.7%	18.5%

Figure 4-1 – Population age profile of Warwickshire in 2021[9]



Projected Population

4.6.3. The total population between 2018 and 2043 in Warwickshire is set to increase by 19.8%, which is well above the national projected population increase, of 10.3%, and 6.2% above the West Midlands projected population increase, which is 13.8%. There are no projected decreases in population over any of the age categories, with the greatest increase being seen in the over 75's, indicating an aging population (**Table 4-4**)[10].

Table 4-4 – Population Projections 2018-2043

Age Group	2018	2043	% Increase
0-4	31,584	37,200	17.8
5-9	33,742	37,627	11.5
10-14	32,335	37,832	17.0
15-19	30,358	35,478	16.9
20-24	33,010	35,465	7.4
25-29	36,024	40,171	11.5
30-34	33,303	42,456	27.5
35-39	34,726	41,552	19.7
40-44	33,804	40,294	19.2
45-49	40,334	43,562	8.0
50-54	42,186	44,948	6.5
55-59	38,597	41,274	6.9
60-64	32,763	39,045	19.2
65-69	31,715	34,672	9.3
70-74	32,468	37,699	16.1
75-79	21,973	35,507	61.6
80-84	16,284	28,091	72.5
85-89	9,845	18,014	83.0

[10] ONS (2018) 2018-Based Subnational Population Projections for Local Authorities and Higher Administrative Areas in England. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/population projections/datasets/localauthoritiesinenglandtable2 (Accessed 06/07/2022)

Age Group	2018	2043	% Increase
90+	5,959	13,427	125.3
All ages	571,010	684,310	19.8

4.7 Disability

4.7.1. Disability can be assessed in terms of ability to undertake an activity. **Table 4-5** shows the proportion of the population whose day-to-day activities are limited a lot, limited a little or not limited by a long-term health problem or disability[11]. As shown, Warwickshire has a slightly higher percentage of the population than the national average who experience some form of limitation, and a lower percentage of the population who experience greater levels of limitation.

Table 4-5 – Proportion of those living with limiting health problems or disability (2011)

Day to Day activities	Warwickshire		England %
	Number in 2011	% Total pop in 2011	
Limited a Lot	41,946	7.7%	8.3%
Limited a little	51,227	9.4%	9.3%
Not limited	452,301	82.9%	82.4%

4.7.2. In Warwickshire, there is an estimated 21,200 people living with sight loss, including around 18,300 people living with partial sight and 2,850 people living with blindness[12]. By 2030, people living with sight loss is expected to increase by 21%. These figures include people whose vision is better than the levels that qualify for registration, but that still has a significant impact on their daily life (for example, not being able to drive).

4.7.3. The estimated prevalence of sight loss is higher in Warwickshire compared to the average for England, with 3.6% of the population living with sight loss, compared to 3.2% nationally. The age profile of those living with sight loss in Warwickshire is however in line with the national averages as shown in **Table 4-6** overleaf.

[11] Nomis (2011). *QS303EW - Long-term health problem or disability*. Available at: https://www.nomisweb.co.uk/census/2011/qs303ew (Accessed 06/07/2022).

[12] RNIB (2021) Sight Loss Data Tool [online]. Local Authority Reports: Warwickshire. Available at: https://www.rnib.org.uk/professionals/knowledge-and-research-hub/key-information-and-statistics/sight-loss-data-tool (Accessed 06/07/2022).

Table 4-6 – Age profile of those living with sight loss (2021)

Age	Warwickshire		England %
	Number in 2021 living with sight loss	% of Total in 2021 living with sight loss	
Under 18	250	1.2	1.0
18 to 64 years old	3,670	17.3	19.2
65 to 74 years old	4,080	19.2	19.9
75 to 84 years old	6,170	29.1	27.8
85 years and over	7,030	33.2	32.1

4.7.4. In Warwickshire, it is estimated that 1,600 people (0.3%) are living with severe dual sensory loss, which is lower compared to the average for England of 10.5%. 4,050 people (0.7%) are estimated to be living with some degree of dual sensory loss, which is in line with the national average of 0.6%. Of the 21,200 people living with sight loss for the period 2019/2020 in Warwickshire, 265 are registered with a vision impairment and deaf or hard of hearing. This is lower than average for England, where 1.4% registered blind and partially sighted are also deaf or hard of hearing[12].

4.8 Race

4.8.1. The 2011 Census data indicates that the majority of the population in Warwickshire identifies as white (92.7%). This is 7.4% higher than the national average[13]. All other ethnicities are recorded as lower or equal to the national average, as outlined in **Table 4-7**.

Table 4-7 – Ethnicity Profile

Ethnic Group	Warwickshire		England %
	Number in 2011	% Total pop in 2011	
White	505,688	92.7%	85.3%
Mixed/multiple ethnic groups	7,949	1.5%	2.3%
Asian/Asian British	25,096	4.6%	7.7%
Black/African/Caribbean/Black British	4,443	0.8%	0.8%
Other ethnic group	2,298	0.4%	1%

[13] NOMIS (2011) QS201EW - Ethnic group [online] Available at: https://www.nomisweb.co.uk/census/2011/qs201ew (Accessed 06/07/2022)

4.9 Sexual orientation

4.9.1. The sexual orientation estimates used here reports on data from a survey question designed to capture self-perceived sexual identity. The estimates are Experimental Statistics that provide 2020 estimates of the UK household population aged 16 years and over broken down into heterosexual or straight, gay or lesbian, bisexual, or other. Robust data for Warwickshire was not available so the estimates for the West Midlands and England are presented.

4.9.2. In the West Midlands the majority of the population aged 16 years and over identify as heterosexual or straight (94.6%). This is 1.3% higher than the national average, whilst those who identify as gay or lesbian is 0.3% below the national average. In addition, the percentage of people in the West Midlands who identify with the 'Don't know or refuse' category is slightly lower (0.8%) than the national average **Table 4-8**.[14]

Table 4-8 – Sexual Orientation Profile of the West Midlands and England.

	West Midlands Estimate		England Estimate	
Sexual Orientation	**Number in 2020**	**% in 2020**	**Number in 2020**	**% in 2020**
Heterosexual or straight	4,442	94.6%	41,990	93.3%
Gay or lesbian	70**	1.5%	825	1.8%
Bisexual	59**	1.6%	598	1.3%
Other	29**	0.6%	286*	0.6%
Don't know or refuse	98*	2.1%	1,295	2.9%

Estimates are considered reasonably precise, (*) Estimates are considered acceptable (**)

4.10 Pregnancy and maternity

4.10.1. A maternity is a pregnancy resulting in the birth of one or more children, including stillbirths. In 2016 the maternity rate in Warwickshire was 60.2 (maternities per 1,000 women aged 15 to 44), which was significantly lower than the maternity rates for the West Midlands at 67.3.[15] The greatest number of live births in Warwickshire are from women in the age

[14] ONS (2021) Sexual orientation, UK: 2020 [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/datasets/sexualidentityuk (Accessed 06/07/2022)

[15] ONS (2021) Births in England and Wales: 2016 summary [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthsummarytables (Accessed 06/07/2022).

category 30-34, which is in line with the West Midlands and England. The percentage of births outside of marriage or civil partnership is slightly lower in Warwickshire than nationally, by 0.6%.

4.10.2. **Table 4-9** shows that the highest number of births across Warwickshire, the West Midlands and England come from mothers aged 30-34[16]. Births in the 45 and over category in Warwickshire are also representative of regional and national totals. Warwickshire has fewer births by mothers aged 20-24 and 25-29 than the regional totals, at 3.3% and 4.6% less respectively.

Table 4-9 – Average age of Mother's at Birth[16]

Age of Mother at Birth	Warwickshire		West Midlands %	England %
	Number in 2020	% of Total live births in 2020		
20 to 24	691	12.3%	15.6%	13.1%
25 to 29	1,455	25.9%	30.5%	27.4%
30 to 34	2,082	37.1%	32.7%	34.4%
35 to 39	1,145	20.4%	16.9%	19.9%
40 to 44	218	3.8%	3.7%	4.5%
45 and over	32	0.2%	0.3%	0.3%

4.11 Marriage and civil partnership

4.11.1. The percentage of the population which is married or in a civil partnership in Warwickshire is 3.9% higher than the national average, and the number of single people is 4% lower than the national average (**Table 4-10**). All other marriage and civil partnership categories are similar to the national averages[17].

[16] ONS (2020) Births by parents' characteristics [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthsbyparentscharacteristics (Accessed: 04/08/2022)

[17] NOMIS (2011). KS103EW - Marital and Civil Partnership Status [online] available at: https://www.nomisweb.co.uk/census/2011/ks103ew (accessed 05/07/2022).

Table 4-10 – Marriage and Civil Partnership Profile

Marriage / Civil Partnership	Warwickshire		England %
	Number in 2011	% Total pop in 2011	
Single (never married or never registered a same-sex civil partnership)	136,687	30.6%	34.6%
Married	225,821	50.5%	46.6%
In a registered same-sex civil partnership	732	0.2%	0.2%
Separated (but still legally married or still legally in a same-sex civil partnership)	10,643	2.4%	2.7%
Divorced or formerly in a same-sex civil partnership which is now legally dissolved	40,801	9.1%	9%
Widowed or surviving partner from a same-sex civil partnership	32,391	7.2%	6.9%

4.12 Unemployment and deprivation

4.12.1. The proportion of unemployment in Warwickshire is lower than the national average for the UK by 2%, but the average gross weekly pay is higher than the UK national average by £28.50/week (**Table 4-11**)[18].

Table 4-11 – Economic Profile (January 2021-December 2021)

Unemployment and Deprivation	Economically inactive: Unemployment (%)	Economically active (%)	Average Gross Weekly Pay of Full Time workers (£)
Warwickshire	2.4%	82.1%	£641.6
West Midlands	5%	77.6%	£581.8
Great Britain	4.4%	78.4%	£613.1

[18] NOMIS (2021) Labour Market Profile – Warwickshire [online] available at:https://www.nomisweb.co.uk/reports/lmp/la/1941962817/report.aspx#tabrespop

4.12.2. The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small neighbourhoods in England. IMD is used by local governments to focus programmes in the most deprived areas and develop strategies, such as the NLPR.

4.12.3. In Warwickshire, there are 339 Lower Super Output Areas (LSOAs). In 2019 of the 339 LSOAs[19]:

- 6 LSOAs are within the top 10% most deprived neighbourhoods;
- 42 LSOAs are within the 20-30% most deprived neighbourhoods;
- 61 LSOA's are within the 40-50% of most deprived neighbourhoods;
- 90 LSOA's are within the 40-50% least deprived neighbourhoods;
- 98 LSOA's are within the 30-20% least deprived neighbourhoods; and
- 42 LSOA's are within the 10% least deprived neighbourhoods.

4.12.4. The most deprived LSOAs in Warwickshire are located to the north of the Borough, in the local authority of Nuneaton and Bedworth in the wards of Bar Pool, Kingswood and Camp Hill.

4.12.5. The least deprived LSOAs in Warwickshire are largely located in the wards of Harbury, Manor House and Glass House & Windy Arbour.

4.13 Gender Reassignment

4.13.1. Trans is a general term for people whose gender is different from the gender assigned to them at birth. Currently no robust data on the UK trans population, and subsequently local authority data, exists. The Government Equalities Office tentatively estimates that there are approximately 200,000-500,000 trans people in the UK[20]. The Office for National Statistics is researching whether and how to develop a population estimate.

4.14 Baseline summary

4.14.1. The Warwickshire gender and age profiles are both largely representative of England overall; however, there is on the whole less diversity in race and religion. The proportion of the population who would state that their day-to-day activities are limited a lot by a long-term health problem or disability is slightly lower than the national average, as well as the proportion of the population who are deaf or hard of hearing and living with vision impairment.

4.14.2. Households within Warwickshire have higher levels of income when compared to the national average England overall, and unemployment rates are slightly lower. There are pockets of deprivation concentrated in the central and northern area of Warwickshire, such

[19] Indices of Deprivation (2019) Indices of Deprivation: 2015 and 2019- Open Data Blog [online] Available at: http://dclgapps.communities.gov.uk/imd/iod_index.html (accessed 05/07/2022).

[20] Government Equalities Office (2018) Trans People in the UK [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/721642/GEO-LGBT-factsheet.pdf (Accessed 06/07/2022).

as Bar Pool, Kingswood and Camp Hill. As detailed schemes and interventions come forward framed by the Local Transport Plan, these should be assessed in more detail to understand the potential impacts on specific local populations and vulnerable groups.

5 IMPACT ASSESSMENT

5.1 Introduction

5.1.1. The Local Transport Plan for Warwickshire County Council is in the process of being updated. The plan came into effect in 2011 and covers the period 2011-2016. The updated LTP4 will be adopted in 2023 and be reviewed after a maximum of five years.

5.1.2. The LTP4 is being developed to allow WCC to address new and emerging transport needs. The LTP4 will identify transport policies and strategies needed to manage and maintain Warwickshire's transport network in a safe, sustainable and integrated way. The proposed main themes for the LTP4 are environment, economy, place and wellbeing.

5.2 Vision

5.2.1. Warwickshire has local plans for various areas within the county. Local plans are prepared by the Local Planning Authority and provide a vision for the future of each area and a framework for addressing housing needs and other economic, social and environmental priorities.

5.3 Policies

5.3.1. The strategies each contain a number of policies which have been assessed from an equality perspective.

5.3.2. Policies have been split by their themes under the following categories:

- Core Strategy (KP1-5);
- Active Travel (AT1-3);
- Managing Space Strategy (MS1-6);
- Motor Vehicles (MV1-4);
- Public Transport Strategy (PT1-5);
- Safer Travel Strategy (ST1-5); and
- Freight Strategy (F1-7).

5.4 Assessment Methodology

5.4.1. The impact assessment will assess the proposed policies, based on their potential to directly or indirectly cause likely disproportionate impacts on people with the protected characteristics outlined previously. Deprivation has also been assessed as an indicator.

5.4.2. Certain equality groups are unlikely to be impacted specifically as a result of the LTP and have been scoped out of this assessment. These include:

- Sexual orientation;
- Gender re-assignment; and
- Marriage and civil partnership.

5.4.3. Impacts on protected characteristic groups in particular will be identified as positive, neutral or negative. Mitigation or recommendations will be provided for each policy where this is applicable. Where the impact is deemed positive or neutral, any recommendations will outline how to ensure there is no negative impact or opportunities to further advance equality and inclusivity.

5.4.4. Table 5-1 below provides the assessment key to the assessment Table 5-2 below.

Table 5-1 – Assessment Key

Symbol	Impact
+	Positive
0	Neutral
-	Negative
+/-	Potential for positive and negative

5.5 Assessment Summary

5.5.1. In summary, the majority of policies are likely to be beneficial to all or the majority of users of the transport network, including those falling under protected characteristic groups. A large number of actions will bring about benefits to air quality and active travel, which will subsequently result in improved physical and mental health of users of the transport networks along with other associated benefits, for which users in protected user groups will be particularly sensitive to.

5.5.2. The main protected characteristic groups that will particularly benefit include:

- Age – older people who have reduced mobility and require access to health and other services. Also children who are likely to benefit from air quality improvements that numerous policies look to achieve;
- Disability – people with a variety of disabilities will benefit from a more accessible environment; and
- Deprivation – people from low-incomes who require access to employment, education and housing and people with underlying health issues.

5.5.3. Key areas where further consideration of protected characteristic groups may be needed include:

- Parking provision;
- Implementation of digital services and technology;
- Development and implementation of active travel schemes, including walking and cycling infrastructure and implementation of schemes such as electric bikes and e-scooters; and

- Development and improvement to public transport provision, including the bus and rail network.

A large number of actions will benefit from input from relevant, representative stakeholders during development and implementation of interventions. It is recommended that proportionate, meaningful and inclusive consultation is undertaken to identify potential impacts and maximise opportunities where there is potential for disproportionate impacts that are not understood.

Table 5-2 – Equality Impact Assessment

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
Core Strategy	**KP1** Engaging with communities to provide transport options which recognise the unique travel needs of Warwickshire's different places	+	+	+	+	+	+	+	<u>All Protected Characteristic Groups (PCG)</u> + This policy aims to provide and develop a sustainable transport network with tailored interventions to suit local requirements.	Inclusive stakeholder engagement should be undertaken with relevant groups when appropriate to ensure services are suitable for users in all protected characteristic groups.
	KP2 Transport interventions which align with our Council Vision, government policy and as many of our four key strategy themes as possible	+	+	+	+	+	+	+	<u>All PCGs</u> + Where implemented, this policy should help to eliminate deprivation by providing better accessibility to employment opportunities, increase opportunities for active travel (beneficial for health, wellbeing and deprivation) and better integrated alternatives to private vehicles, and reduce opportunity for crime.	
	KP3 Decarbonising transport and transport related infrastructure	+	+	+ -	+ -	+	+	+	<u>All PCGs</u> Encouraging more sustainable travel choices could provide health benefits for all (but particularly those with respiratory issues, the young, old and those in deprived and urban areas), in terms of physical fitness, mental wellbeing and through better environments and improved air quality. <u>Deprivation</u> + Discouraging car use in favour of public transport may result in cheaper tickets to make this mode more attractive, therefore becoming more accessible for lower income groups. <u>Disability, Age</u> - Implementing measures that encourage reduced car dependency could impact on the ability of those with limited mobility to access services.	Additional consideration must be taken for those with different mobility needs, including those experiencing disability, older people, and families with younger children, and of those with levels of deprivation so as to not create barriers to participation. Interventions should consist of a range of solutions, with consideration of affordability, to be inclusive of different needs. In implementing interventions for reducing car dependency, provision should be maintained for those for those with limited mobility, such as retention or provision of new designated blue badge parking.
	KP4 A flexible approach to policy development in response to a changing Warwickshire	+	+	+	+	+	+	+	<u>All PCGs</u> + A more flexible approach able to adapt to a changing demographic stands to benefit all groups.	None.

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	KP5 Data and evidence-led monitoring and evaluation of our transport interventions	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	Data collection should be mindful of under or over represented groups and fill data gaps by other means where necessary. Inclusive stakeholder engagement should be undertaken with relevant groups when appropriate to ensure data is representative and considerate of users in all protected characteristic groups.
Active Travel	**AT1** Improving accessibility and attractiveness of active travel options	+	+	+	+	+	+	+	<u>Age, Disability, Pregnancy and Maternity and Deprivation</u> + These groups will benefit from improved accessibility infrastructure including step-free accesses, provision of seats and benches in public spaces and e-bike parking. +Affordable active transport options will benefit those without private vehicles. <u>Sex/gender, Disability, Race, Religion</u> +Improving attractiveness at transport interchanges should help to eliminate crime and improve perceptions of safety for those who may be more vulnerable to attack or hate crimes, particularly during the hours of darkness.	Accessible surfacing should be considered for mobility aid users and people with mobility restrictions. Parking and access will require new spaces within developments to be equipped with electric charging points. Ensure that improvements are considerate of appropriate lighting schemes and security measures. There should be considerate placement of infrastructure such as cycle parking, to ensure visibility of users to discourage criminal activity (both to property and people). Reviews of charges to end users should be undertaken periodically to ensure financial barriers are not unnecessarily placed on those with levels of deprivation. Where financial barriers are found to exist, opportunities should be sought to reduce these. Solutions to be considered could include subsidies to charges, educational schemes (for example for bike skills)

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	AT2 Better, safer routes for walking and cycling	+	+	+	+	+	+	+	Sex/gender, Disability, Race, Religion +Improving walking and cycling routes should help to eliminate crime and improve perceptions of safety for those who may be more vulnerable to attack or hate crimes, particularly during the hours of darkness. Age, Disability + Older people and those with limited mobility could particularly benefit from less strenuous forms or accessible active travel, due to associated health benefits. Deprivation + Better connectivity between footways/ cycleways and public transport will particularly benefit people from low-income families.	Cycleways should provide enough space for adapted cycles that may benefit groups affected (particularly the disabled, older people with limited mobility and those with small children). Active travel infrastructure should be accessible and inclusive. Inclusive stakeholder engagement should be undertaken with relevant groups when appropriate to ensure services are suitable for users in all protected characteristic groups. Consideration should be made for removing other barriers towards active travel for disabled people, such as affordability. The council should work with charities and other representative groups to help lower the cost of adapted cycles.
	AT3 Information and promotion	+	+	+/-	+	+/-	+	+/-	All PCGs + Extensive up-to-date information easily available to all users to promote active travel. Age, Race, Deprivation - The results of surveys and audits have the potential to be over or under represented by different user groups, particularly where there are barriers to participation for reasons such as lower literacy (including digital) and language.	Implementation of scheme should be mindful of cultural sensitivities and lower socio-economic households, which could cause participation to be limited. Where cultural or financial barriers are found to exist, opportunities should be sought to reduce these. Promotion should be considerate of the demographic in the locality and cater for different languages and cultural practices as appropriate. Sensory limitations and literacy (including of digital resources) should also be considered.
Managing Space	**MS1** Increasing sustainable development and travel	+	+	+	+	+	+	+	All PCGs + Better provision of sustainable forms of transport and active travel will help negate air quality issues and provide health benefits for the whole community.	Active travel infrastructure should be accessible and inclusive. Evidence collection to inform decision making should be mindful of under or over represented groups and fill data gaps by other means where necessary.

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	MS2 Travel options which are accessible to all	0	0	+	+	0	+	+	Age, Disability, Pregnancy and Maternity, and Deprivation + These groups will likely suffer the greatest relating to accessibility whether it is physical accessibility or financial. More accessible travel options can lead to lower levels of social isolation amongst other benefits.	Inclusive stakeholder engagement should be undertaken with relevant groups when appropriate to ensure services are suitable for users in all protected characteristic groups.
	MS3 Prioritising use of space to promote sustainable travel options	+	+	+ -	+ -	+	+	+	All PCGs + This policy aims to change the way car usage dominates Warwickshire's towns and villages, helping to negate air quality issues and provide health benefits for the whole community. Deprivation + Discouraging car use in favour of public transport may result in cheaper tickets to make this mode more attractive, therefore becoming more accessible for lower income groups. Disability, Age - Implementing measures that encourage reduced car dependency could impact on the ability of those with limited mobility to access services.	Consultation with relevant stakeholder groups should be undertaken to inform design and planning decisions when reallocating space. In implementing interventions for reducing car dependency, provision should be maintained for those for those with limited mobility, such as retention or provision of new designated blue badge parking.
	MS4 Robust data-led decision making in assessing new developments	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	Data collection should be mindful of under or over represented groups and fill data gaps by other means where necessary.
	MS5 Construction to best available standards	+	+	+	+	+	+	+	All PCGs + Carbon reduction embedded into design will help negate air quality issues and improve overall health.	None.

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	MS6 Influencing Planning Authorities and Developers	+	+	+	+	+	+	+	All PCGs + Travel and transport improvements including road safety audits have the potential to reduce road traffic accidents and increase overall safety for all groups. Age + Safer routes to school will benefit children and parents/care givers. Disability + Planned disabled access improvements are likely to benefit disabled people.	Accessible surfacing should be encouraged in design for the benefit of mobility aid users and people with mobility restrictions.
Motor Vehicles	**MV1** Using our influence with partners to provide a modern fit-for-purpose route network	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	None.
	MV2 Increased use of technology in network monitoring	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	None.
	MV3 Maximising funding opportunities	0	0	0	0	0	0	+	Deprivation + In maximising funding opportunities for providing alternative transport, those without access to motor vehicles will benefit.	Cheaper / more sustainable alternatives could be provided which will grant all income levels access to travel.
	MV4 Making our towns and villages and the routes that connect them better places to be	+	+	+	+	+	+	+	All PCGs + Less traffic in town centres will help improve air quality and create more attractive places to visit. Disability + Reducing traffic in town centres but retaining disabled access would prevent issues for individuals who rely on this.	

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
Public Transport	**PT1** Working with partner organisations to improve public transport	0	0	0	0	0	0	+	<u>Deprivation</u> + Working with partner organisations to improve public transport could provide funding opportunities for alternative transport.	A comprehensive public transport network with a variety of services should consider people from low-income families. In monitoring value for money, affordability for low-income households should be considered.
	PT2 Making our towns and villages and the routes that connect them better Improved accessibility and attractiveness of public transport as a travel choice	0	0	+	+	0	+	+	<u>All PCGs</u> + Improved accessibility and attractiveness of public transport with the intention of creating a Warwickshire Bus Passenger Charter is likely to provide benefits for these groups, particularly for those who may feel vulnerable to criminal activity	Work with partnering organisations to ensure all facilities are to the highest standard for each demographic. Operators could consider improvements to their services and schedules to support the night time economy, ensuring reliability and safety for users during this time. Ensure that improvements are considerate of appropriate lighting schemes and security measures. There should be considerate placement of infrastructure such as cycle parking, to ensure visibility of users to discourage criminal activity (both to property and people).
	PT3 Information and ticketing	0	0	+/-	-	-	0	+/-	<u>Deprivation</u> + Producing a Countywide multi-operator bus ticket as way of simpler, more flexible ticketing options will benefit those from low-income families. <u>Age</u> +Younger people without access to private vehicles would benefit from digitally connected transport which offers wider levels of participation. <u>Age, Disability, Race and Deprivation</u> - Elderly people, those with certain disabilities, those with lower levels of fluency in the English language and those most deprived may not have access to certain advanced technologies and therefore may be excluded through use of digital applications.	Review and develop new and simpler means of obtaining and paying for journeys will benefit those on lower incomes. Access through digital technology to any such information or ticketing schemes (via the use of apps for example) should be inclusive of those with disabilities (sensory and learning), those with language barriers and those with limited understanding or access to smart phones and other technology (such as the elderly, more deprived and non-native English speakers).

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	PT4 New developments and connectivity to public transport services	0	0	+	+	0	+	+	Age, Disability, Pregnancy and maternity and Deprivation + Maximising opportunities to provide access to public transport will particularly benefit these groups.	A comprehensive public transport network with a variety of services should consider younger and older people, pregnant woman and those on maternity, people using mobility aids or with restricted mobility and people from low-income families.
	PT5 Community Rail Partnership	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	None.
Safer Travel	**ST1** Working with Partners to deliver road safety improvements	+	+	+	+	+	+	+	All PCGs + Implementation of a Safe Systems approach to road safety has the potential to reduce road traffic accidents and increase overall safety for all groups.	None.
	ST2 Evidence-led road safety engineering interventions	+	+	+	+	+	+	+	All PCGs + Fewer collision hotspots and less network congestion will reduce road traffic accidents and all groups will benefit.	None.
	ST3 - Wide-ranging community engagement to improve road safety	0	0	+	0	0	0	0	Age + All ages will benefit from this policy, education for school children and courses/campaigns for mature drivers.	Inclusive stakeholder engagement should be undertaken with relevant groups when appropriate to ensure services are suitable for users in all protected characteristic groups. Engagement should be considerate of the demographic in the locality and cater for different languages and cultural practices as appropriate.
	ST4 Road engineering design to align with appropriate quality standards	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	None

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	ST5 Promoting safety in all travel choices	+	+	+	+	0	0	+	Age / Disability / Sex/Gender + Improved road safety and better lighting may positively benefit older and younger people, women and those who are physically disabled or have impaired mobility. Deprivation + Convenience and cost are large factors in influencing travel options, ensuring these modes are secure will increase accessibility. Sex/gender, Disability, Race, Religion + Improving safety at transport interchanges should help to eliminate crime and improve perceptions of safety for those who may be more vulnerable to attack or hate crimes, particularly during the hours of darkness.	Cheaper / more sustainable alternatives could be provided which will grant all income levels access to travel. Ensure that improvements are considerate of appropriate lighting schemes and security measures. There should be considerate placement of infrastructure such as cycle parking, to ensure visibility of users to discourage criminal activity (both to property and people).
Freight Strategy	**F1** Promote shift from road to rail and active travel modes	+	+	+	+	+	+	+	All PCGs + Reduction in road freight travel can provide benefits to all groups via lower emissions, lower congestion and lower noise pollution.	None.
	F2 Facilitate the transition to alternative fuels for freight vehicles	+	+	+	+	+	+	+	All PCGs + Intended policy outcomes of reduced emissions and improved air quality will benefit all groups.	None.
	F3 Support efforts to deliver a better network of lorry parking in the county	+	0	0	0	0	0	+	Sex/gender and Deprivation + Improved driver well-being may have a greater benefit on men, as there are likely to be a greater number of male HGV drivers in the county. + Enhancing HGV driving as a career could provide employment opportunities for people from low-income families.	None.

Strategy	Policy/ Action	Sex/ gender	Religion	Age	Disability	Race	Pregnancy and maternity	Deprivation	Potential impacts	Mitigation measures / Recommendations
	F4 Support and deliver initiatives that improve journey time reliability for freight movements	0	0	0	0	0	0	0	No protected groups are identified as specifically impacted.	None.
	F5 Reduce the impact of 'last mile' deliveries	+	+	+	+	+	+	+	All PCGs + Promoting active travel for goods deliveries will improve the air quality and overall health of all groups.	Active travel infrastructure should be accessible and inclusive.
	F6 Reduce incidents involving freight vehicles	+	+	+	+	+	+	+	All PCGs + Work to reduce the likelihood of road collisions will benefit all groups.	None.
	F7 Encourage freight vehicles to use appropriate routes	+	+	+	+	+	+	+	All PCGs + Reducing instances of HGVs using small local roads will enhance the environment and wellbeing of those in the area, benefitting all groups.	Opportunities for training/job opportunities for individuals with barriers to work.

Appendix C

HEALTH IMPACT ASSESSMENT

Quality control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft for Client Review	Final for Consultation		
Date	July 2022	September 2022		
Prepared by	Ffion Jones Charlotte Town	Charlotte Town		
Signature				
Checked by	Claire Beard	Claire Beard		
Signature				
Authorised by	Peter Walsh	Peter Walsh		
Signature				
Project number	70095759	70095759		
Report number	1.1	1.2		

Contents

Tables

Figures

1 Introduction

1.1 Overview

1.1.1 Warwickshire is a county in the West Midlands, England. It is located south-east of Birmingham and includes the towns of Atherstone, Nuneaton, Bedworth, Rugby, Kenilworth, Royal Leamington Spa, Stratford-Upon-Avon and Warwick.

1.1.2 Warwickshire County Council (WCC) is in the process of updating the current Local Transport Plan (LTP), LTP3[1], which came into effect in 2011 and covers the period 2011-2026. The updated LTP will cover the period 2022-2026.

1.1.3 LTP4 is being developed to allow WCC to address new and emerging transport needs. LTP4 will identify transport policies and strategies needed to manage and maintain Warwickshire's transport network in a safe, sustainable and integrated way. The proposed main themes for LTP4 are environment, economy, place and wellbeing.

1.2 Integrated Sustainability Appraisal

1.2.1 An Integrated Sustainability Appraisal (ISA) has been undertaken to ensure that sustainability aspects are incorporated into the LTP4. The ISA enables synergies and cross-cutting impacts to be identified, avoids the need to undertake and report on separate assessments, and seeks to reduce any duplication of assessment work. This process also helps to simplify outcomes and recommendations for policymakers.

1.2.2 As part of the ISA, a Health Impact Assessment (HIA) has been undertaken to assess the impacts of the LTP on human health in WCC, and the likely effects on health outcomes in the local population.

1.2.3 The outcomes of the HIA have informed the ISA.

[1] Warwickshire County Council, Warwickshire Local Transport Plan (LTP3) 2011 [online] available at: https://www.warwickshire.gov.uk/directory-record/2149/local-transport-plan-2011-2026

2 Scope and Methodology

2.1 Introduction

A rapid desktop HIA was undertaken in July 2022. The key tasks for this HIA were as follows:

- Develop a summary health and wellbeing baseline and profile of the WCC area;
- Identify relevant evidence from literature; and
- Assess the potential health and wellbeing impacts of the LTP4, and the nature and likelihood of such impacts.

2.2 Scope

Study Area

This is a rapid, desk-based assessment of the direct and indirect health effects on local communities anticipated to result from the implementation of the 7 themes and 60 proposed policies of the LTP4. The geographic study area of this HIA is therefore the WCC area.

Study Population

The population scope of this HIA includes the WCC resident population.

Using professional judgement and an understanding of the population of WCC (set out in Section 4 below), the main vulnerable groups within the population that have been considered in this assessment are:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

Determinants of Health

Using professional judgement and experience of undertaking assessments of similar policies, the key determinants of health and wellbeing that have been considered in this assessment are:

- Air Quality;
- Noise;
- Economy and employment;
- Access to services;
- Physical activity; and
- Road Safety.

Baseline and Health Profile

The baseline and health profile of the WCC area has been compiled using existing, publicly available data, including:

- Office for Health Improvement & Disparities (OHID) Local Authority Health Profiles;
- Office for National Statistics Labour Market Profiles (Nomis);
- Warwickshire Joint Strategic Needs Assessment data; and
- OHID “Local Health” datasets.

Appraisal

The proposed seven key strategies of the LTP4 were considered and assessed against each of the identified determinants of health set out above, looking first at the baseline conditions of the study area population, evidence of how each determinant impacts human health, and the effect that the general principles and policies of the LTP4 are likely to have on the health of the study area population, as presented in **Section 5.**

2.3 Assumptions and Limitations

Census data collected in 2011 has been used in limited instances to inform the baseline of this assessment. Data from the 2021 Census has yet to be released in full, and therefore has only been reported for indicators where available. No significant changes or limitations in these datasets have been identified that would affect the robustness of the HIA.

3 Health Impact Assessment

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

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

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

HIA has been defined as:

"…a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population"[2].

In this context, 'health' is defined by the World Health Organisation as:

"…a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity"[3].

Health determinants are the personal, social, cultural, economic and environmental factors that influence the health of individuals or populations. These include a range of factors such as income, employment, education and social support.

Health inequality can be defined as the difference in either health status, or the distribution of health determinants, between different population groups. Some health inequalities are unavoidable, others are not so and may well be unjust and unfair.

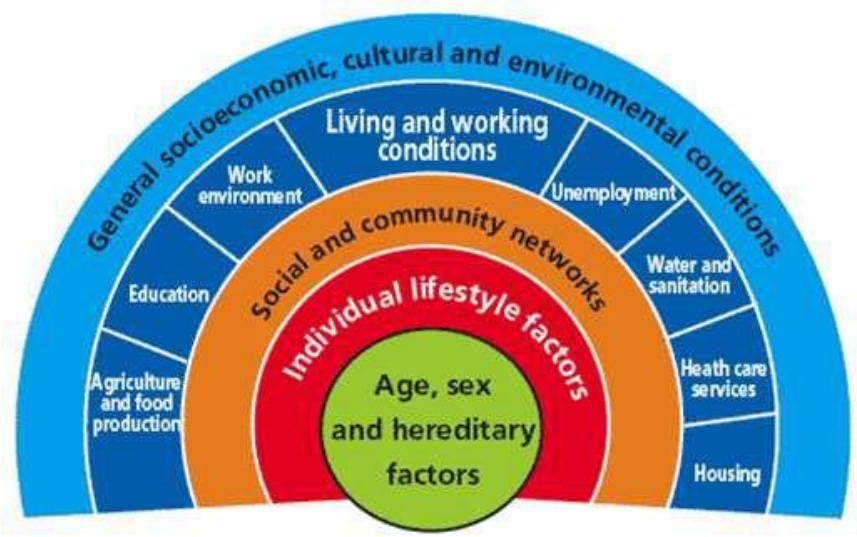
HIAs apply the below model of health and wellbeing (**Figure 3-1**). The Socio-Environmental Model of Wellbeing considers that health and wellbeing are a result of external influences,

[2] World Health Organisation, (n/a). Definition of health assessment (HIA). Available online at: http://www.euro.who.int/en/health-topics/environment-and-health/health-impact-assessment/definition-of-health-impact- assessment-hia

[3] World Health Organisation (n/a). Constitution. Available online at: https://www.who.int/about/who-we-are/constitution

where an individual or population experiences a combination of adverse external factors which could result in health inequality.

Figure 3-1 - Socio-Environmental Model of Health and Wellbeing[4]



The overall aim of this HIA will be to identify the aspects of the LTP4 which have the potential to affect people's health, both directly and indirectly. Some effects may be positive, others could be negative.

[4] Dahlgren, G. and Whitehead, M. (1991) Policies and Strategies to Promote Social Equity in Health. Stockholm, Sweden: Institute for Futures Studies

4 Community Profile and Baseline

4.1 Introduction

Amongst the communities living in, and directly affected by, any changes brought about by the key themes or policies of the LTP4, the proportion and profile of vulnerable groups, identified above in **Section 2.2,** have been outlined below using publicly available data.

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

4.2 Baseline

This section summarises the socio-economic and community baseline conditions for the spatial scope of the HIA. The most recent publicly available information has been used to create these profiles.

Population

The total population in Warwickshire in 2021 was 596,800. Of this population approximately, 294,000 (49.3%) were male, and 302,800 (50.7%) were female[5]. The population density of the County is 302 people per square kilometre[6].

The 2011 Census data indicates that the ethnicity amongst the majority of Warwickshire's population is composed of groups which are White (92.7%). The proportion of the population of Warwickshire which are ethnically white is 7.3% higher than the national average. The proportion of Warwickshire's population which are composed of non-white ethnic groups are recorded as lower than the national average of those groups, as outlined in **Table 4-1.**

[5] Population and household estimates, England and Wales: Census 2021 [online] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhouseholdestimatesenglandandwalescensus2021 (Accessed: 10/08/2022).
[6] Nomis (2011) Warwickshire Local Authority Area Report Local Area Report for areas in England and Wales - Nomis (nomisweb.co.uk)

Table 4-1 - Ethnicity of WCC Population, 2011[7]

Ethnicity	Warwickshire (%)	England (%)
White	92.7	85.4
Mixed / multiple ethnic groups	1.5	2.3
Asian / Asian British	4.6	7.8
Black / African / Caribbean / Black British	0.8	3.5
Other Ethnic Groups	0.4	1.0

Table 4-2 below uses 2011 Census data to present the principal religious groups reflected in the population of Warwickshire, and how their proportions compare to the population nationally. The population of Warwickshire is principally Christian (64.5%), with the second largest group identifying as of no religion (24.1%), which both reflect the trend in England.

Table 4-2 - Principal Religious Groups Across Population of WCC in Comparison with England, 2011[7]

Religion	Warwickshire (%)	England (%)
Christian	64.5	59.4
Buddhist	0.3	0.5
Hindu	1.0	1.5
Jewish	0.1	0.5
Muslim	1.1	5.0
Sikh	1.7	0.8
Other Religion	0.4	0.4
No Religion	24.1	24.7

[7] Nomis (2011) Warwickshire Local Authority Area Report Local Area Report for areas in England and Wales - Nomis (nomisweb.co.uk)

Religion	Warwickshire (%)	England (%)
Religion not stated	6.8	7.2

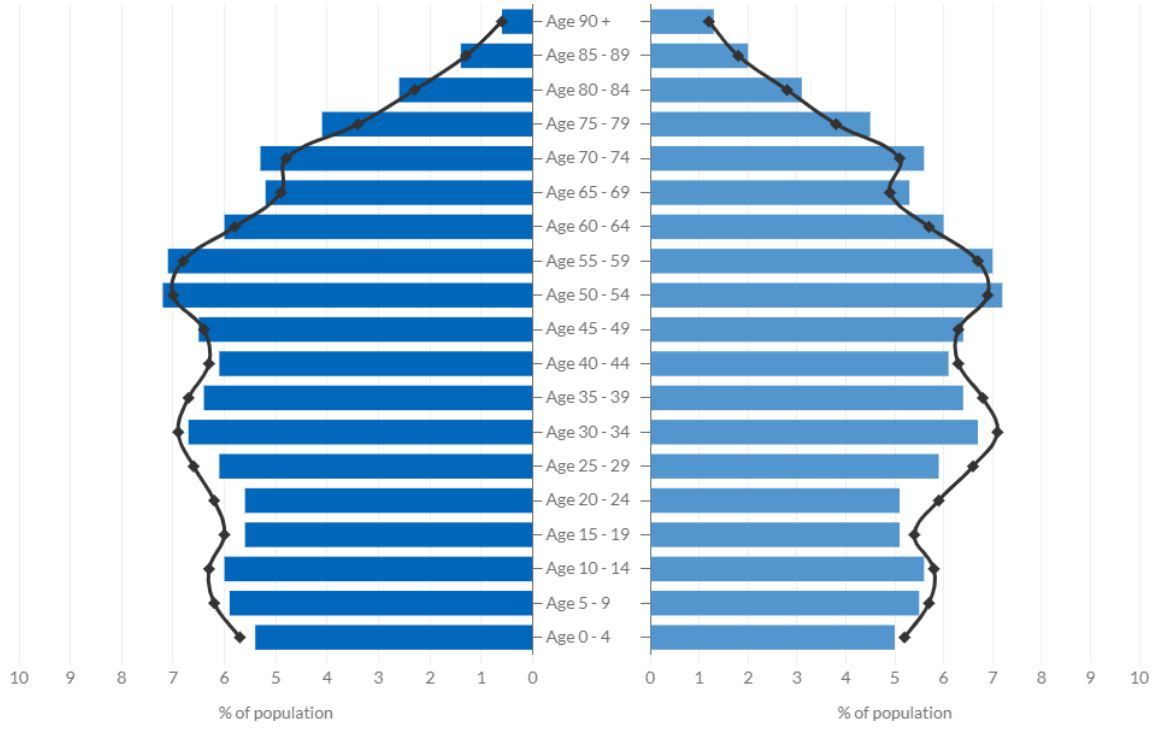
Age

The age profile of residents within Warwickshire indicates that the population is predominantly middle aged, with approximately 61% of the population aged between 16 - 64 years.[8] This is slightly lower than the West Midlands average of 61.7%, and lower than the England average of 62.3%. **Figure 4-1** shows the population profile of the Warwickshire population in 2021.

Figure 4-1 - Population age profile of Warwickshire in 2021[8]

Life Expectancy

Life expectancy is the measure of the average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.



[8] WCC Population – Warwickshire [online] Available at: https://data.warwickshire.gov.uk/population/reports/#/viewreport/63aeddf1d7fc44b8b4dffcd868e84eac/E10000031/G3 (Accessed: 11/08/2022).

Life expectancy in Warwickshire is similar to the national average. For males in Warwickshire, life expectancy is 79.7 years, which is higher than the West Midlands region average of 78.5 years, and similar to England average of 79.4 years. For females in Warwickshire, life expectancy is 83.4 years, which is higher than the West Midlands region average of 82.5 years and similar to the England average of 83.1 years[9].

However, despite an average life expectancy aligned with the national average, within Warwickshire there is slight variation within its districts life expectancy for both males and females. **Table 4-3** details average life expectancy at birth for specific districts in the County, from 2015 - 2019.

Table 4-3 - Life Expectancy by district in Warwickshire (years)[10]

District	Life Expectancy (Males)	Life Expectancy (Female)
Warwick	81.2	84.5
North Warwickshire	78.9	82.5
Nuneaton and Bedworth	77.9	82.2
Rugby	80.2	83.5
Stratford on Avon	81.2	85.0

The variation in life expectancy for both males and females within Warwickshire is also indicative of variations in health and wellbeing between wards. For males in Warwickshire, the variation in life expectancy between wards is 13.5 years (with the lowest expectancy in Hartshill and the highest in Bishop's Tachbrook. Similarly, for females, the variation in life expectancy between wards is 10.9 years (with the lowest expectancy Bede and the highest in Brailes & Compton).

Weight and Physical Activity

The proportion of adults (aged 18+) in Warwickshire who are categorised as overweight or obese is 65.6%. This is lower than the West Midlands region average of 66.8%, and higher than the average in England which is 63.5% of the population[11].

[9] Office for Health Improvement & Disparities (2019) Local Authority Health Profile for Warwickshire [online] Available at Local Authority Health Profiles - Data - OHID (phe.org.uk)
[10] Public Health England (2019) Local Health [online] Available at: Local Health - Office for Health Improvement and Disparities - Indicators: maps, data and charts
[11] Public Health England Obesity Profile [online] Available at Local Authority Health Profiles - Data - OHID (phe.org.uk)

The proportion of the adult population describing themselves as physically active within Warwickshire is 67.4%. This is significantly[12] higher than the proportion of the adult population describing themselves as physically active across the West Midlands region as a whole (63%), and higher than for the rest of England (65.9%)[13].

Obesity amongst children is measured through the National Child Measurement Programme (NCMP), which measures the weight and obesity level of both reception children (aged 4-5 years) and year 6 children (aged 10-11 years).

The prevalence of overweight children among year 6 children in Warwickshire was 32.3%, which is slightly lower than the England average of 34.6%. The prevalence of obesity among children in year 6 was 18.6%, which is lower than the England average of 20.4%. Amongst Reception-aged children, the percentage of children deemed overweight was 21.9%, which was slightly lower than the England average of 22.6%. The proportion of those deemed to be obese amongst in reception children was 9.0%, which was also slightly lower than the England average of 9.7%[14].

Lifestyle

Smoking is a major risk factor for many diseases, such as lung cancer, chronic obstructive pulmonary disease (COPD) and heart disease, as well as being linked to cancers in other organs, including lip, mouth, throat, bladder, kidney, stomach, liver and cervix.

Smoking prevalence among adults in Warwickshire in 2019 was marginally lower than both the West Midlands and England averages. The prevalence of current smokers in Warwickshire was 13.3%, compared to 14.1% in the West Midlands region and 13.9% in England.

The number of COPD emergency hospital admissions in Warwickshire in 2020 varied significantly by district. **Table 4-4** shows the number of emergency hospital admissions for the condition, with 1 out of 5 districts having higher hospitalisation rates than the England average of 100 Standardised Admission Ratio (SAR).

Table 4-4 - Emergency hospital admissions due to COPD in Warwickshire[15]

District	Warwickshire Hospital Admissions (SAR)

[12] Statistical significance as determined by OHID/PHE.
[13] Public Health England (2020) Percentage of Physically Active Adults [online] Available at Local Authority Health Profiles - Data - OHID (phe.org.uk)
[14] Office for Health Improvement & Disparities (2019) Local Authority Health Profile for Warwickshire, Available at: Local Health - Office for Health Improvement and Disparities - Indicators: maps, data and charts
[15] Office for Health Improvement & Disparities (2019) Local Authority Health Profile for Warwickshire, Available at: Local Health - Office for Health Improvement and Disparities - Indicators: maps, data and charts

Warwick	74.5
North Warwickshire	87.2
Nuneaton and Bedworth	107.5
Rugby	74.0
Stratford on Avon	55.2

Alcohol misuse can be directly attributed to deaths from certain types of disease such as alcoholic liver disease, certain types of cancer and cirrhosis and remains a challenge for many Local Authorities in England.

In Warwickshire, hospital admissions for alcohol-related conditions were 675 per 100,000 population. This is lower than the average for the West Midlands region of 739 per 100,000 and similar to the England average of 664 per 100,000[16].

Unemployment / Economy

According to data collated for 2021, in Warwickshire, 291,900 people are considered to be economically active (aged 16-64 years), or 82.1% of the population. Of this economically active population, 2.4% are unemployed. Unemployment in Warwickshire is almost half the average in the West Midlands region of 5%, and lower than the Great Britain average of 4.4%[17].

Of those considered economically inactive in Warwickshire, 29.3% are students, 16.1% are looking after family / home, 24.7% are long-term sick, 13.6% are retired and 16.3% fall in the category of "other".

Warwickshire has a higher-than-average proportion of workers in high value occupations when compared to the West Midlands and Great Britain. **Table 4-5** outlines the percentage of people employed in Warwickshire, within 2021, according to occupation compared to both the West Midlands and Great Britain averages. The data is collated according to the Standard Occupation Classification 2010 (SOC 2010) descriptions used by the Office for National Statistics.

Table 4-5 - Employment by occupation in Warwickshire, 2021[17]

[16] Public Health England (2020) Admission Episodes for Alcohol related conditions [online] Available at: Local Authority Health Profiles - Data - OHID (phe.org.uk)
[17] Nomis (2021) Labour Market Profile – Warwickshire [online] Available at: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)

	Warwickshire (%)	West Midlands Region (%)	Great Britain (%)
SOC 2010 Major Group 1 - 3	**52.9**	**46.2**	**49.7**
1 Managers, Directors and Senior Officials	10.0	9.6	10.5
2 Professional Occupations	26.7	22.6	23.7
3 Associate Professional and Technical	16.1	14.0	15.3
SOC 2010 Major Group 4 -5	**16.5**	**19.2**	**19.0**
4 Administrative and Secretarial	8.8	10.2	10.2
5 Skilled Trades Occupations	7.7	8.9	8.8
SOC 2010 Major Group 6 - 7	**15.5**	**16.3**	**16.2**
6 Caring, Leisure and Other Service Occupations	8.2	9.7	9.2
7 Sales and Customer Service Occupations	7.3	6.6	6.9
SOC 2010 Major Group 8 - 9	**15.1**	**18.3**	**15.1**
8 Process Plant and Machine Operatives	5.9	7.1	5.5
9 Elementary Occupations	9.1	11.1	9.6

Education

The proportion of the population of Warwickshire who have gained formal qualifications is higher at all NVQ levels, compared to both the West Midlands and Great Britain. The proportion of people in Warwickshire who have no formal qualifications is lower than the West Midlands and Great Britain average. **Table 4-6** shows the percentages of the population in Warwickshire with qualifications compared to the West Midlands and Great Britain averages.

Table 4-6 - Qualification levels in Warwickshire, 2021[18]

Qualification Level	Warwickshire (%)	West Midlands (%)	Great Britain (%)
NVQ 4 and above	44.7	38.8	43.5
NVQ 3 and above	62.6	57.2	61.5
NVQ 2 and above	80.7	75.2	78.2
NVQ 1 and above	89.4	84.9	87.6
Other Qualifications	5.3	7.4	5.9
No Qualifications	5.3	7.7	6.6

Health

The average percentage of the population in England with a long-term illness or health condition is 17.6%, and in Warwickshire it is 17.1%. The proportion of residents within Warwickshire living with a long-term illness or health condition varies between Districts. There are 2 Districts within the County that have a greater proportion of people with a long-term illness or health condition, Nuneaton & Bedworth (19.5%) and North Warwickshire (19.2%). The remaining three wards have a lower proportion of people living with a long-term illness or health condition compared with the national average, however every ward in the Borough has over 14% of the population living with a long-term illness or health condition[19].

Suicide rates within areas can provide an indication of the current state of mental health of residents. The suicide rate within Warwickshire is 9.2 per 100,000 people. This rate is lower than the West Midlands region rate of 10.5 per 100,000, and the England average of 10.4 per 100,000[20].

Self-assessed health from the 2011 Census within Warwickshire indicates that the resident population consider themselves to be a healthy population. In Warwickshire in 2011, 82.2% of the population rated their health as ‘very good’ or ‘good’, with 12.9% stating they have

[18] Nomis (2021) Labour Market Profile – Warwickshire [online] Available at: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)
[19] Office for Health Improvement & Disparities (2019) Local Authority Health Profile for Warwickshire, Available at Local Health - Office for Health Improvement and Disparities - Indicators: maps, data and charts
[20] Public Health England (2020) Suicide rate, 2018 - 2020 [online] Available at: Local Authority Health Profiles - Data - OHID (phe.org.uk)

‘fair’ health. Additionally, 3.8% of the population stated they had ‘bad’ health, and 1.1% as ‘very bad’[21].

Income

In Warwickshire, the proportion of children (under 16 years) in low-income families was 11.9%, which was significantly lower than both the West Midlands average, at 20.3%, and the England average of 17%. Demonstrating that Warwickshire has a significantly lower than average number of children living in low-income families[22].

Table 4-7 below presents the average gross hourly and weekly wages of residents in full-time employment within Warwickshire, compared to both West Midlands and Great Britain averages. Average wages of Warwickshire residents in full-time employment are higher both per hour and per week compared to both the West Midlands average, and are slightly higher than the average for Great Britain.

Table 4-7 - Average Gross and Weekly Earnings of Residents in Warwickshire[23]

	Warwickshire (£)	West Midlands (£)	Great Britain (£)
Gross Weekly Pay	625.9	585.0	612.80
Hourly Pay (Excluding Overtime)	15.80	14.75	15.64

[21] Nomis (2021) Local Area Report – Warwickshire [online] Available at: Local Area Report for areas in England and Wales - Nomis (nomisweb.co.uk)
[22] Public Health England (2020) Children in low-income families (under 16) 2016 data. Available at: Local Authority Health Profiles - Data - OHID (phe.org.uk)
[23] Nomis (2021) Labour Market Profile – Warwickshire [online] Available at: Local Area Report for areas in England and Wales - Nomis (nomisweb.co.uk)

Deprivation

The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small neighbourhoods in England[24]. IMD is used by local governments to focus programmes in the most deprived areas and develop strategies, such as the LTP4 in Warwickshire.

4.2.1 In Warwickshire, there are 339 Lower Super Output Areas (LSOAs). In 2019 of the 339 LSOAs[25]:

- 6 LSOAs are within the top 10% most deprived neighbourhoods;
- 42 LSOAs are within the 20-30% most deprived neighbourhoods;
- 61 LSOA's are within the 40-50% of most deprived neighbourhoods;
- 90 LSOA's are within the 40-50% least deprived neighbourhoods;
- 98 LSOA's are within the 30-20% least deprived neighbourhoods; and
- 42 LSOA's are within the 10% least deprived neighbourhoods.

4.2.2 The most deprived LSOAs in Warwickshire are located to the north of the Borough, in the local authority of Nuneaton and Bedworth in the wards of Bar Pool, Kingswood and Camp Hill.

4.2.3 The least deprived LSOAs in Warwickshire are largely located in the wards of Harbury, Manor House and Glass House & Windy Arbour.

Transport and Accessibility

There are a number of motorways and trunk roads within Warwickshire, including the M6, M6 Toll, M40, M42, M45, M69, A5, A38, A45 and A46. Parts of the M1 and A14 also pass close to the County boundary. There are important interchanges on this network at Longbridge near Warwick (M40/A46), Tollbar End near Coventry (A45/A46) and the M69/A5 junction on the Warwickshire/Leicestershire border near Hinckley. In addition, the M1/M6/A14 intersection at Catthorpe provides a major interchange just outside the County within Leicestershire. The core routes are supplemented by an extensive network of 'B' and 'C' roads, some of which carry significant volumes of local and medium distance traffic[26].

[24] Department for Communities and Local Government (2016) The English Index of Multiple Deprivation (IMD) 2015 – Guidance
[25] Indices of Deprivation (2019) Indices of Deprivation: 2015 and 2019- Open Data Blog [online] Available at: http://dclgapps.communities.gov.uk/imd/iod_index.html (accessed 05/07/2022).
[26] Warwickshire County Council (2011). Local Transport Plan 3 2011 – 2026. [online]. Available at: Warwickshire Local Transport Plan (Accessed 21 July 2022).

There are higher levels of car ownership within the areas of Warwick and Nuneaton and Bedworth. The proportion of car or van ownership within regions of Warwickshire are outlined in **Table 4-3**, below:

Table 4-8 – Car Ownership within households within Warwickshire, 2011[27]

Car or Van ownership within households	Warwick	North Warwickshire	Nuneaton and Bedworth	Rugby	Stratford-on-Avon
No cars or vans	10,848	4,001	11,813	7,335	6,622
1 car or van	24,086	10,362	22,455	17,797	19,840
2 cars or vans	18,413	8,402	14,251	12,925	18,347
3 cars or vans	3,928	2,167	3,192	2,841	4,959
4 or more cars or vans	1,404	880	1,000	977	2,160

Road Safety

Between 2016 and 2018, an average of 64.3 people per 100,000 were killed or seriously injured on roads in Warwickshire. This is significantly higher than both the regional average of 38.4 people per 100,000 and the national average of 42.6 per 100,000[28].

[27] NOMIS (2011). Car or Van Availability. [online]. Available at: QS416EW (Car or van availability) - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk) (Accessed 21 July 2022)

[28] Office for Health Improvement & Disparities (2019). Local Authority Health Profiles –Killed or seriously injured (KSI) rate on England's roads. [online]. Available at: Local Authority Health Profiles - Data - OHID (phe.org.uk) (Accessed 21 July 2022).

Air Quality

The association between health effects and exposure to air pollutants is well established, with distinct health risks associated with exposure to particulates available at a local level[29]. Older people (75+), infants (0-5) and children (under 16 years) and those with long term health conditions, are the most likely to be vulnerable to the effects of air pollution.

Air quality across Warwickshire is generally considered to be of good quality.

There are ten AQMAs within Warwickshire, declared primarily as a result of pollution caused by road transport. These ten AQMAs are located in the following areas[30]:

- Warwick District Council – five AQMAs,
- Nuneaton and Bedworth District Council – two AQMAs,
- Rugby District Council – one AQMA, and
- Stratford-on-Avon District Council – two AQMAs.

Noise

Noise pollution can negatively impact upon health through impacting sleep and creating a nuisance for residents. The main sources of noise within Warwickshire are due to roads, particularly the M6, M69, M40 and M42, A5, A46, A429 and A435. Railways within Nuneaton, Rugby and Royal Leamington Spa also contribute to significant noise levels.

Noise Important Areas (NIAs) are identified through a noise action plan. Within Warwickshire, there are over 100 NIA's that have been identified, concentrated in and around the town and city centres and along major roads and railways, generally in the north of the county.

[29] 105 COMEAP (2010). The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom. A report prepared by
the Committee on the Medical Effects of Air Pollutants. [online]. Available at: http://www.comeap.org.uk/ (Accessed 21 July 2022).
[30] Department for Environment Food & Rural Affairs (2020). UK Air Information Resource AQMAs interactive map (defra.gov.uk)

5 Assessment of Strategies and Policies

5.1 Introduction

The strategies and the policies that make up the LTP have been reviewed and assessed against key determinants of health (outlined in **Section 2.2)** to identify potential effects within the study area population.

Policies have been split into their corresponding strategies for ease of assessing, as follows:

- Core Strategy;
- Active Travel Strategy;
- Freight Strategy;
- Managing Space Strategy;
- Motor Vehicle Strategy;
- Public Transport Strategy; and
- Safer Travel Strategy.

5.2 Core Strategy

Assessment Summary

The assessment identified the following social groups that could be affected by the Strategic Policies:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

Generally, the **Core Strategy** results in positive impacts upon health determinants. There are a number of resulting beneficial health effects, particularly upon residents in rural Warwickshire, **older people (65+)**, **children and young people (0-16 years)**, and **socially isolated groups** such as expectant and new mothers.

Core Strategy policies provide positive impacts upon air quality within the county, benefitting all residents, but particularly those on lower incomes who are more likely to live in close proximity to congested highways in areas of poorer air quality. The improvement of air quality can have particularly beneficial effects for **young people**, **older people**, and those with **existing health conditions**. The reduction in emissions to air, such as PM_{10} and $PM_{2.5}$, and construction related emissions will improve physical health and wellbeing throughout Warwickshire.

Developments and improvements to transport networks to fit Warwickshire's requirements, and connect rural areas, will result in positive effects upon those in rural areas, **older**

people (65+), children and young people (0-16 years) and **socially isolated groups**. The network will develop to fit the needs of Warwickshire's population and is likely to increase accessibility as well as encourage economic opportunities to these groups. However, the development of new routes may result in small increases in noise and air pollution in areas which previously experienced low levels.

Table 5-1 presents the assessment of the Core Strategy.

Table 5-1 - Assessment of Core Strategy

Determinant of Health	Assessment
Air Quality	The association between health effects and exposure to air pollutants is now well established, with distinct health risks associated with exposure to particulates available at a local level[31]. **Older people (75+), infants (0-5)** and those with **existing health conditions,** are the most likely to be vulnerable to the effects of air pollution. Across the policies of the **Core Strategy** there is a focus upon transitioning to sustainable travel modes and implementing sustainable travel choices and modes. This modal shift is likely to result in a reduction in vehicle emissions and an improvement in air quality within Warwickshire. The effects of these policies are anticipated to be beneficial and are most likely to be felt in areas of **low income**, in population groups with **existing health conditions**, **older people**, and **children and young people** residing close to highly congested routes.
Noise	The **Core Strategy** will aid in reducing noise pollution in Warwickshire, particularly through the encouragement of sustainable transportation in policies KP1 and KP3, and the discouragement of car dependency within KP3. This is likely to reduce noise pollution disturbance, particularly for those living in close proximity to larger road networks. This is most likely to have positive effects upon those in **lower income** communities and other residents of all ages. However, the development of new infrastructure routes across Warwickshire may cause increases in noise levels, this is particularly likely to impact those who currently experience lower noise levels and increase the disturbance they experience.

[31] 105 COMEAP 2010 The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom. A report prepared by the Committee on the Medical Effects of Air Pollutants. Available at: http://www.comeap.org.uk/

Determinant of Health	Assessment
Physical Activity	Despite Warwickshire having higher than average rates of physical activity when compared to England, the policies within the **Core Strategy** are likely to have positive effects upon physical activity amongst the population. The encouragement of healthy lifestyles included in KP2 is likely to encourage increasing physical activity rates and improve physical health. This is particularly likely to impact **young adults** and **adults** in Warwickshire.
Road Safety	The discouragement of car dependency, particularly within KP3, is likely to improve road safety and reduce the number of collisions and people KSI on Warwickshire's roads. This is due to a reduction in the number of vehicles on the county's roads and result in positive effects on all groups.
Economy and Employment	Positive effects are anticipated upon economy and employment as a result of policies within the **Core Strategy**. Specifically, policies KP1, KP2 and KP3. These policies improve infrastructure provision within Warwickshire, particularly within its rural areas, allowing increased employment opportunities. Policy KP2 also facilitates benefits upon jobs, training, skills and education which are likely to result in positive effects, particularly on **children and young people**, **young adults**, and those in **low-income** households.
Access and Accessibility	The **Core Strategy** is anticipated to have positive effects upon access and accessibility across all groups, but particularly those in **socially excluded groups**, **older people (75+)**, **children and young people**, and **low-income groups**. Policy KP1 specifically addresses improvements to the transport network to incorporate previously isolated areas of Warwickshire, such as its rural areas, and provide fit-for-purpose solutions. The incorporation of sustainable travel choices is also likely to provide alternative transport options, such as public transport, for those who are unable to access a private car.

5.3 Active Travel Strategy

Assessment Summary

The assessment identified the following social groups that could be affected by the **Active Travel Strategy**:

- Children and young people;
- Older people;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

The **Active Travel Strategy** results in positive impacts upon health determinants. There are a number of resulting beneficial health effects, particularly upon **lower income groups**, **older people (65+)**, **children and young people (0-16 years),** and **socially isolated groups** as a result of the policies within this Strategy.

The **Active Travel Strategy** will contribute to encouraging a modal shift away from private car use and towards active travel. This increased uptake will subsequently reduce road emissions and improve air quality. These improvements will have positive effects on those with long term health conditions, the **older people (aged 75+)** and **children and young people**, and those with **existing health conditions**.

Improvements to active travel are also likely to see improved physical health through increased physical activity rates. Although this is likely to occur within adults in Warwickshire, there are also likely to be increases in activity rates in **children and young people**, in which could contribute to reductions in obesity and overweight individuals.

In addition to these benefits, the introduction of active travel will contribute to improved mental wellbeing as it can contribute to reduced noise pollution and therefore result in improvements to the tranquillity of areas. Also, the increased availability of transport options to those who are on **lower incomes** or **socially isolated** could contribute towards positive health outcomes. Active travel options will encourage interaction with employment hubs and provide social opportunities for these groups, improving mental wellbeing.

However, it is unlikely that **older people (aged 75+)** and those with **existing health conditions** (particularly mobility impairments) will utilise active travel networks. Therefore, the benefits on these social groups are limited to indirect benefits from determinants such as air quality.

Table 5-2 below presents the assessment for Active Travel Strategy Policies.

Table 5-2 - Assessment of Providing for Active Travel Strategy Policies

Determinant of Health	Assessment
Air Quality	The combination of all policies within the **Active Travel Strategy** is likely to encourage uptake of active travel options, particularly through introduction of more comprehensive active travel and public transport options in the County, therefore reducing the number of vehicles on Warwickshire's roads. An improvement in air quality is therefore anticipated, having positive effects on health. This is particularly likely to affect **children and young people**, **older people (75+)** and those with **existing health conditions**. Improvements in air quality are anticipated to result in reduced incidences of health conditions exacerbated by poor air quality such as asthma.
Noise	Increases in active travel choices are anticipated to result in reductions in noise pollution in Warwickshire. Reductions in noise pollution will also contribute to increased tranquillity, resulting in positive effects upon health.
Physical Activity	The **Active Travel Strategy** will result in positive effects upon physical activity, particularly amongst **adults** and **children and young people**. Despite Warwickshire having existing high levels of physical activity, the promotion of active travel schemes is likely to further improve activity rates and reduce obesity and overweight prevalence amongst the resident population. Participation in physical activity is lower in **older people (75+)**, more deprived groups, **unemployed or workless** groups, routine and manual workers, and **people with existing health conditions**, particularly those with conditions that limit their mobility. This trend may be improved by the removal of obstacles to public transport and active travel options for those who are of limited mobility.
Road Safety	There are likely to be improvements in road safety as a result of the **Active Travel Strategy**. Increased uptake of active travel modes is likely to reduce the number of private vehicles on Warwickshire's roads. This is likely to increase road safety in the county, reducing the number of accidents and people KSI on roads.

Determinant of Health	Assessment
Economy and Employment	Policy AT1, specifically, is likely to have positive effects upon economy and employment. Affordable rental bikes, and the provision of active travel networks, are likely to improve opportunities for those who are on **lower incomes** to access employment opportunities. Those who cannot afford private vehicles may have additional options for travelling to areas of employment through the introduction of active travel networks. The Active Travel Strategy will also improve connectivity within urban Warwickshire and provide increasing access to employment areas. This is likely to have positive effects upon the mental wellbeing of **lower income** groups, as well as **socially isolated** groups through improving accessibility to areas of employment and employment opportunities.
Access and Accessibility	The **Active Travel Strategy** contributes to improved access and accessibility in Warwickshire, resulting in positive effects upon multiple social groups, particularly those who are **socially isolated**, on **lower incomes**, and **young adults**. Active travel options can provide an alternative to private vehicle use which are lower cost. Improvements to active travel infrastructure may also improve links across different areas of Warwickshire, improving overall accessibility. This is likely to result in improved mental wellbeing due to the increase in accessible areas, and opportunities for social interactions.

5.4 Freight Strategy

Assessment Summary

The assessment identified the following social groups that could be affected by the **Freight Strategy** policies:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

Overall, the **Freight Strategy** is likely to result in a mixed number of positive and negative effects on health determinants.

Localised improvements to air quality are anticipated, which is most likely to benefit those in , **older people**, **children** and those with **existing health conditions** in these communities. There are also likely to be localised improvements for populations living in rural areas with regard to noise disturbance, resulting in improved mental wellbeing. Similarly, there are likely to be improvements to road safety and a reduction in accidents and people KSI in rural areas of Warwickshire.

Improvements to freight infrastructure and increases in road freight journeys are likely to result in negative impacts on air quality as a whole for Warwickshire, as well as noise impacts as a whole. These negative impacts are due to increased freight movements across the county, especially on already congested, and heavily utilised road networks. Decreases in air quality and increases in noise are likely to have negative effects on both physical health and mental health as a result. This is particularly likely to affect those in **low-income groups**, **children**, **older people**, those with **existing health conditions**, as well as communities located close to large road networks.

Increasing capacity on the network for freight vehicle movements is likely to contribute to economic growth in Warwickshire through improved journey times and a more reliable supply chain. This provides opportunities for increased investment in the area, providing improvements to the county, as well as potential increases in employment opportunities. This will likely improve mental wellbeing amongst **low-income groups** and **adults** in Warwickshire through increased opportunities and improvements in economy.

Table 5-3 below shows the assessment for the policies within the Freight Strategy.

Table 5-3 - Assessment of Freight Strategy Policies

Determinant of Health	Assessment
Air Quality	Policy F1 within the **Freight Strategy** is likely to result in positive effects upon air quality through its improvements to infrastructure and the increase in sustainable freight modes, which could lead to reduced freight emissions and improved air quality. However, the promotion of road freight will likely result in negative effects on air quality. Increasing road freight, as well as developing associated infrastructure such as lorry parking and network improvements is likely to increase the number of freight vehicles on Warwickshire's roads, with a corresponding increase in emissions and degradation to air quality. New infrastructure could also result in construction related emissions that will negatively impact air quality in close proximity to these developments, unless properly managed and mitigated. This is most likely to affect those in **lower income households** who reside close to key infrastructure routes which are highly used by freight vehicles, as well as other residents located close to freight routes. It is also likely to affect **older people (75+)**, **children and young people** and those with **existing health conditions**.
Noise	The **Freight Strategy** as a whole is likely to result in negative effects on noise, particularly for resident populations located along key infrastructure routes through increases in volumes of vehicles. Increases in quantities of lorries is likely to increase noise pollution and reduce tranquillity, subsequently having a negative effect on mental wellbeing in receptor populations. Policy F7 both contributes negative effects, and provides positive effects upon noise. There is the potential for localised improvements to traffic noise through appropriate route usage for freight vehicles, reducing noise nuisance for those in close proximity to the currently used unsuitable routes – this is particularly likely to be residents in rural Warwickshire. However, this will move freight traffic onto routes with existing high levels of noise, causing increased nuisance for residents in these areas.
Physical Activity	Policy F5 contributes to the positive effects upon physical activity as a result of the **Freight Strategy**. This outlines the encouragement and promotion of active travel solutions for goods deliveries within

Determinant of Health	Assessment
	Warwickshire. Adults are most likely to benefit from this policy as they are most likely to be employed as delivery people, increasing their physical activity through the use of active travel in their delivery routes. However, this population group already have existing high levels of activity and therefore improvements to health are limited.
Road Safety	Within the **Freight Strategy**, policies F1, F4, F6 and F7 are likely to contribute to reductions in accidents and those people KSI on roads in Warwickshire. These policies contribute to ensuring correct route usage for freight vehicles, potentially resulting in improved pedestrian safety on smaller roads in the county. However, the strategy as a whole encourages additional road freight transportation. This will increase the number of freight vehicles on Warwickshire's roads and likely results in negative effects upon road safety. An increase in vehicle numbers of this kind may increase the risk of collisions not only with other vehicles, but also with pedestrians and cyclists.
Economy and Employment	The **Freight Strategy** as a whole is likely to increase investment opportunities within Warwickshire through improving road network capacity and reliability. This could contribute to economic growth in the County, and may also offer increased job opportunities as a result of investment. Additional economic growth and improvements to employment are most likely to benefit those in **low-income groups**, and **adults** in Warwickshire.
Access and Accessibility	There are unlikely to be any direct impacts upon access and accessibility as a result of freight strategy policies within Warwickshire.

5.5 Managing Space Strategy

Assessment Summary

The assessment identified the following groups that could be affected by the **Managing Space Strategy** policies:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

Overall, the **Managing Space Strategy** results in positive effects across health determinants, although it does not directly impact all health determinants. The strategy is particularly likely to result in positive effects upon access and accessibility for a wide range of social groups, but especially **young people**, **older people**, those on **low incomes**, those with **existing health conditions**, and **socially isolated people**..

The **Managing Space Strategy** is likely to result in positive effects within populations associated with improved mental wellbeing and physical activity. An increase in use of public and active transport options will also improve physical health as there is an increased level of physical activity associated with these transport modes.

There are also likely to be positive effects upon air quality as a result of the **Managing Space Strategy**. This strategy, and its policies, contribute towards the modal shift away from private car use and towards sustainable modes. This aids in reducing vehicle emissions and improving Warwickshire's air quality, particularly in urban areas where air quality is current poorer. This positively effects the physical health of **older people (75+), children** and those with **existing health conditions,** in particular.

Additionally, reductions in vehicle numbers on Warwickshire's roads contributes to positive effects upon road safety. Reductions in vehicle numbers will reduce the number of collisions and those people KSI on Warwickshire's roads. Additionally, improvements to active travel and public transport facilities and networks will reduce the number of collisions involving pedestrians and cyclists.

Managing Space Strategy Assessment

Table 5-4 below presents the assessment for Managing Space Strategy policies.

Table 5-4 - Assessment of Managing Space Strategy Policies

Determinant of Health	Assessment
Air Quality	The **Managing Space Strategy** is likely to result in positive effects upon air quality through its promotion of sustainable transport modes, and discouragement of car use. This is most likely to benefit **older people (75+), children** and those with **existing health conditions, who** are the most likely to be vulnerable to the effects of air pollution. However, there may be negative effects on air quality as a result of the development outlined within the **Managing Space Strategy**. Many of the policies require development of interventions, and this is therefore likely to lead to construction related emissions affecting air quality unless appropriate management and mitigation measures are in place. Although this effect will be localised in the area of construction and unlikely to have an effect on Warwickshire's wider population.
Noise	There are unlikely to be any direct impacts upon noise in Warwickshire as a result of the **Managing Space Strategy**.
Physical Activity	The prioritisation of sustainable transport modes within the **Managing Space Strategy** is likely to result in positive effects on health. Increases in both public transport and active travel options and their connectivity to hubs is likely to result in increases in physical activity within Warwickshire.
Road Safety	The **Managing Space Strategy** discourages private car use and focuses on the development of sustainable transport modes across Warwickshire. This is likely to result in positive effects upon road safety through a reduction in the number of vehicles on Warwickshire's roads, reducing the number of collisions and people KSI. Additionally, the improvements outlined to improve active travel infrastructure and public transport facilities, as well as connectivity between transport modes and associated infrastructure will reduce the number of collisions involving pedestrians and cyclists.
Economy and Employment	There are unlikely to be any direct impacts upon economy and employment in Warwickshire as a result of the **Managing Space Strategy**.

Determinant of Health	Assessment
Access and Accessibility	Policy MS2 specifically focusses on improving the accessibility of travel options. This policy is likely to therefore result in positive effects on a wide range of population groups, namely: **young people**, **older people**, those on **low incomes**, those with **existing health conditions**, and **socially isolated people**. The improvements to not only public transport services, but also designs, are likely to provide additional access to these groups and allow an easier method of travel, with improved design accessibility particularly benefiting those with **disabilities and/or limited mobility**. Policies MS3 and MS6 also include measures for increased connectivity and accessibility between modes, this is beneficial for those relying on public transport as their main mode of travel, improving access options to wider areas of Warwickshire.

5.6 Motor Vehicle Strategy

Assessment Summary

The assessment identified the following groups that could be affected by the **Motor Vehicle Strategy** policies:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

The policies within the **Motor Vehicle Strategy** focus on developing a road network within Warwickshire that is fit for purpose and meets the needs of Warwickshire's communities, whilst improving environmental factors. These policies have mixed impacts across health determinants, however positive impacts are likely to be felt by those with **existing health conditions**, **socially isolated groups**, **low-income groups**, **young people**, and **elderly people** within the community.

Policies within the strategy promote a reduction in private car use towards more sustainable modes, such as public transport, electric vehicles and active travel. This is likely to contribute to positive impacts upon air quality and noise, positively affecting **children and young people**, **older people**, and those with **existing health conditions**.

The strategy is also likely to result in road safety improvements due to reduced vehicle numbers through the discouragement of private car use. Additionally, developments to infrastructure are likely to create more fit-for-purpose transport networks that will provide increased safety for road users, including car drivers.

There will also be positive impacts upon accessibility in the county with improved services and networks providing access across Warwickshire. Additionally, the inclusion of park and ride facilities provides increased accessibility, especially for those relying on public transport such as **older people**, **young people**, **socially isolated groups** and **low-income groups**.

Motor Vehicle Strategy Assessment

Table 5-5 below presents the assessment for Motor Vehicle Strategy policies.

Table 5-5 - Assessment of Motor Vehicle Strategy Policies

Determinant of Health	Assessment
Air Quality	The **Motor Vehicles Strategy** is likely to result in positive effects upon air quality, with a theme of the strategy being to improve the environment and meet the environmental concerns of local communities, namely through improving air quality and encouraging sustainable modes or travel. Improvements to air quality through a reduction in vehicle numbers and congestion is likely to have positive effects upon **children and young people**, **older people**, those with **long-term health conditions**. Additionally, positive effects are likely to be felt by those in **lower income** areas located in areas of poor air quality. There are also likely to be localised negative effects as a result of the **Motor Vehicles Strategy**. This strategy involves developing additional highways infrastructure through widening existing routes, as well as other developments. This will result in localised increases in emissions and dust during construction that are likely to have negative impacts on those in close proximity to developments unless appropriately managed, particularly those with asthma or vulnerable groups.
Noise	Reductions in the volume of vehicles in Warwickshire as detailed in policy MV4, will have positive effects upon noise pollution through a reduction in traffic. This is likely to reduce noise nuisance in the county and therefore improve health through increases in tranquillity and improvements in mental health. However, the overall **Motor Vehicle Strategy** includes measures such as the provision for additional capacity increases on roads and additional developments that will promote car use and increase traffic volumes on upgrades routes. This is likely to have negative impacts upon noise both long term and during construction.
Physical Activity	There are unlikely to be any direct impacts upon physical activity in Warwickshire as a result of this strategy.
Road Safety	Improvements to the transport network, as identified in the **Motor Vehicle Strategy**, is likely to result in positive impacts upon road safety. The development of networks to reduce the volume of traffic in Warwickshire will reduce the number of vehicles on roads, and specifically in congestion, resulting in reductions in the number of collisions and KSI on roads.

Determinant of Health	Assessment
Economy and Employment	There are unlikely to be any direct impacts upon the economy and employment in Warwickshire as a result of the motor vehicles strategy.
Access and Accessibility	The **Motor Vehicle Strategy**, specifically policy MV4, is likely to bring positive effects for access and accessibility in Warwickshire, specifically for **residents in rural areas** and those on **lower incomes,** with **disabilities** or **socially isolated** groups who rely on public transportation and cannot afford private vehicles. New infrastructure will ensure connectivity both in urban and rural areas of Warwickshire and provide alternatives to private cars such as public transport and active travel modes.

5.7 Public Transport Strategy

Assessment Summary

The assessment identified the following social groups that could be affected by **Public Transport Strategy** policies:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

The policies within the **Public Transport Strategy** aim to achieve a connected public transport system to provide sustainable travel options and a convenient alternative to cars.

The **Public Transport Strategy** results in positive impacts upon health determinants. The strategy is particularly likely to result in positive effects upon air quality for a range of social groups including **older people (65+), children and young people (0-16)** and those with **existing health conditions**. The improvement of air quality will be beneficial to the health and wellbeing of these groups.

The strategy is also likely to result in a positive effect for access and accessibility for all social groups, particularly those who are on **lower incomes** or **socially isolated**. Improved access between towns and accessibility through affordable transport will encourage people from a range of social groups to use public transport, resulting in health effects.

The strategy is also likely to result in road safety improvements due to reduced vehicle numbers through the encouragement of public transport.

An improved public transport service will benefit the economy by enabling people to travel further than they might otherwise be able to for employment opportunities, and potentially increased spending in the local area. This is likely to effect **low-income groups**.

Policies within the strategy are also likely to result in a reduction of noise pollution from less traffic congestion, improving mental health. Physical activity may also see increased rates, resulting in improved physical health in relevant social groups.

Public Transport Strategy Assessment

Table 5-6 below presents the assessment for the Public Transport Strategy policies.

Table 5-6 - Assessment of Public Transport Policies

Determinant of Health	Assessment
Air Quality	The **Public Transport Strategy** will help to encourage the use of public transport to reduce road congestion and associated emissions, resulting in and improvement to local air quality. This is most likely to benefit **older people (65+)**, **children and young people (0-16)** and those with **long term health conditions**, who are most likely to be vulnerable to the effects of air pollution.
Noise	Reductions in traffic congestion in Warwickshire, as detailed in the strategy, will have positive effects upon noise pollution through a reduction in traffic. This is likely to reduce noise nuisance in the county and therefore improve health through increases in tranquillity and improvements in mental health.
Physical Activity	Public transport is an effective way to introduce physical activity into daily life, contributing to good physical and mental wellbeing. The encouragement of public transport use within the **Public Transport Strategy** is likely to result in positive effects on physical activity.
Road Safety	The **Public Transport Strategy** encourages additional use of public transport to reduce road congestion, through the development of sustainable travel options. Warwickshire has a relatively high level of vehicles registered per head of population and a steady increase of the number of vehicles places pressure on road space. Traffic congestion due to an increase of vehicles on the road may negatively impact road safety. However, the delivery of a successful public transport network could provide an alternative to car use and is therefore likely to produce positive effects upon road safety, reducing the number of collisions and those KSI.
Economy and Employment	The **Public Transport Strategy** is likely to have a positive impact on the economy and employment. An overarching ambition of WCC is to bring economic benefits to Warwickshire residents, visitors, and businesses. Making buses a more attractive transport choice supports the economy by providing shoppers and workers with affordable options to travel.

Determinant of Health	Assessment
	An affordable option for travel to areas of employment will provide opportunities to those who cannot afford private vehicles and would otherwise be excluded. Greater connectivity to public transport services, as set out in PT2 and PT4, is likely to improve employment opportunities for those from low-income households.
Access and Accessibility	Policy PT2 specifically focusses on improved accessibility of the routes between towns and villages, while Policy PT3 recognises convenience and cost of public transport as important factors in making public transport a more attractive alternative to the private car. Offering better connected and affordable transport options will be beneficial to those relying on public transport as their main mode of travel. These policies will likely result in positive effects on a wide range of social groups including **children and young people (0-16)**, **older people (65+)**, those on **low incomes**, those with **existing health conditions** or **disabilities**, and **socially isolated people**. Increasing the attractiveness of public transport as a travel choice by offering new services will provide better access to these groups, providing an easier method of travel.

5.8 Safer Travel Strategy

Assessment Summary

The assessment identified the following groups that could be affected by **Safer Travel Strategy** policies:

- Children and young people;
- Older people;
- People with disabilities and mobility impairment;
- People with existing health conditions;
- Unemployed and low-income groups; and
- Socially excluded or isolated groups.

The **Safer Travel Strategy** results in positive impacts upon most health determinants apart from air quality and noise, where it is unlikely to have a direct impact. There are several resulting beneficial health effects, particularly upon **unemployed and low-income groups**, **older people (65+)**, **children and young people (0-16 years),** those with **disabilities** and **socially isolated groups** as a result of the policies within this Strategy.

The **Safer Travel Strategy** has an overarching vision is to create a place that is safe, healthy and inclusive, allowing people who live, visit and work in Warwickshire the ability to travel around the county safely. As well as maintaining a safe community, road safety improvement will be beneficial to the county's economic well-being.

A focus of the strategy is improving road safety by aiming for a reduction in collisions and number of people KSI on roads in Warwickshire, through various interventions within the policies. These improvements will have particular positive effects on **older people (aged 65+)** and **children and young people (0-16)**, and people with **disabilities and mobility impairment**. Improvements to safer travel are also likely to see improved physical health through the encouragement of public transport use and active travel, resulting in improvements to mental and physical well-being.

Another important factor within the strategy is increased access and accessibility to safe travel throughout the county. Providing safe and accessible public transport as well as improving safety for car users may remove barriers to travelling around Warwickshire for certain social groups. This may positively impact the health of **older people (65+)**, those who are **socially isolated,** in **low-income households** or have **disabilities** the most. This may result in increased employment opportunities which would benefit individuals as well as the wider economy of Warwickshire.

Safer Travel Strategy Assessment

Table 5-7 below presents the assessment for the sub-theme of Safer Travel Strategy.

Table 5-7 - Assessment of Safer Travel Strategy Policies

Determinant of Health	Assessment
Air Quality	There are unlikely to be any direct impacts upon air quality in Warwickshire as a result of the **Safer Travel Strategy**.
Noise	There are unlikely to be any direct impacts upon noise in Warwickshire as a result of the **Safer Travel Strategy**.
Physical Activity	Providing safer travel may encourage more active travel and increase the use of public transport. This may result in positive effects on physical activity, providing mental and physical health benefits from cycling and walking. This may be of particular benefit to adults and young people. Participation in physical activity is lower in **older people (75+)**, **unemployed and low-income** groups, and people with **disabilities**. However, providing safer travel opportunities may remove some barriers to such transport modes.
Road Safety	WCC's main area of focus is road safety, which is highlighted throughout the **Safer Travel Strategy**. The strategy will most likely bring positive effects to **older people (65+)**, **children and young people (0-16)** and people with **disabilities**. The strategy presents a long-term vision of improving the transport system to one free from death and serious injury. The prioritisation of interventions within the Safe Systems method will benefit road safety by introducing casualty reduction schemes in design, working with emergency services and education of road users. This is likely to result in positive effects upon road safety in Warwickshire, reducing the number of collisions and those KSI. Those who may particularly benefit from the education intervention are **children and young people (0-16)** and **older people (65+)**. The creation and management of the Warwickshire Road Safety Partnership (WRSP) as set out in Policy ST1 will positively effect road safety by working with partners to adopt road safety improvements. Concerns for personal safety are recognised as a barrier to people using forms of transport other than cars. Policy ST5 promotes safety in all forms of transportation by improving facilities and ensuring that alternative modes

Determinant of Health	Assessment
	of transport are convenient, cost effective and safe. This may lead to increased use of alternative transport options and would most likely benefit those from **low-income households**.
Economy and Employment	The **Safer Travel Strategy** will generally benefit Warwickshire's economic well-being as well as creating a safer road environment. The overarching focus of the strategy is aligning safety management goals with wider sustainability goals which includes economic goals. This is likely to have positive effects on the economy and employment.
Access and Accessibility	The **Safer Travel Strategy** should result in positive effects for access and accessibility. Providing safe and convenient travel options will encourage public transport use. It may also increase accessibility to different areas of Warwickshire to people who may otherwise not feel safe. These outcomes could result in improved mental wellbeing due to the increase in accessible areas, and opportunities for interactions. The social groups most likely to feel the benefits are **older people (65+)** those who are **socially isolated**, have a **disability**, or from **low-incomes households**.

Appendix D

BASELINE

POPULATION AND EQUALITIES

SUMMARY OF CURRENT BASELINE

The 2020 population estimates published by the Office for National Statistics (ONS) estimate that the county of Warwickshire has a total population of 583,786[15], which has increased 6.46% since 2012. Approximately 61% (355,847 persons) of the population are aged between of 16-64. The modal group 50-54 years make up 7.2% of the total population; this is the highest modal age group in the county. The percentage of those aged 65 and over (20.8%) exceeds the national average of 18.4%.

Of the five districts, Warwick has the highest total population, whereas North Warwickshire has the lowest. The total population in the districts within Warwickshire is shown in **Table D-1**.

Table D-1 - Population in the Local Authority Districts Within Warwickshire[16]

Local Authority District	Population
North Warwickshire	65,452
Rugby	110,650
Nuneaton and Bedworth	130,373
Stratford-on-Avon	132,402
Warwick	144,909
Warwickshire total	**583,786**

Within the county approximately 50.6% of the population are female and 49.4% are male, which is comparable with the national average of 50.6% and 49.4% respectively15.

Overall, the ethnic make-up of Warwickshire is much less diverse compared to the national average[17]. Of the resident population in Warwickshire, 92.7% identified themselves as white, 4.6% identified as Asian or Asian British, 1.5% as mixed race, 0.8% black or black British, and 0.4% as other.

[15] Warwickshire County Council (n.d.) Population. Available online at: https://data.warwickshire.gov.uk/population/ (Accessed: 30/06/2021)

[16] Warwickshire County Council (n.d.) Population Reports - Districts. Available online at: https://data.warwickshire.gov.uk/population/report/view/80ce2c2a7cf543688fb39ce97ec7478e/E07000218/ (Accessed: 30/06/2021)

[17] Office for National Statistics, Census 2011

In Warwickshire, 31% of the population live in rural areas[18], which is much higher than the national average of 18.5%. Of the rural population, more than half (62%) are of working age (16-64) whilst 21% are aged 65 and over.

Looking at the Indices of Multiple Deprivation (IMD) 2019[19], Warwickshire has a ranking of 121st out of 151 local authority areas using the 'rank on average score' (1 being the most deprived and 151 the least deprived)[20]. Warwickshire contains neighbourhoods covering the entire deprivation spectrum, ranging from 10% most deprived to 10% least deprived. There are six lower-layer super output areas (LSOAs) amongst the most deprived 10% of neighbourhoods nationally, five in Nuneaton and Bedworth and one in North Warwickshire. Stratford-on-Avon was ranked the least deprived at 266th out of 317.

Table D-2 shows that Warwickshire has a much higher percentage of NVQ levels across the board in comparison to both the West Midlands and Great Britain, while 'other qualifications' and 'no qualifications' are lower[21].

Table D-2 - Highest level of Qualification Held (2020)

Qualifications	Warwickshire (%)	West Midlands (%)	Great Britain (%)
NVQ Level 4	46.9	37.1	43.1
NVQ Level 3	65.1	56.8	61. 4
NVQ Level 2	81.0	75.1	78.2
NVQ Level 1	90.9	85.4	87.9
Other Qualification	4.7	6.5	5.7
No Qualification	4.5	8.2	6.4

FUTURE TRENDS

The population across the West Midlands is anticipated to be amongst the fastest growing nationally, with a forecast increase of 6.1% by the end of 2028[23]. In Warwickshire, the percentage increase by 2028 is estimated to be 8.7%[22], which is higher than the national increase of 4.5%[23].The proportion of

[18] Rural Growth Plan for Warwickshire- Appendix: Rural Profile. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-954-537 (Accessed 01/07/2021)

[19] Ministry of Housing, Communities and Local Government, Indices of Multiple Deprivation 2019, [online] available at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019 (Accessed 11/03/2021)

[20] Index of Multiple Deprivation (IMD) 2019: Warwickshire. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-644-576 (Accessed 30/06/2021)

[21] Nomis Local Labour Statistics, 2019

[22] Office for National Statistics, Subnational population projections for England: 2018-based

[23] Office for National Statistics (2019) National population projections: 2018-based.

people aged 65 years and over is expected to rise to 24.5% by 2043[15]. On average 10% of older people (over 65 years) are often or always lonely[24].

The number of households with increased risk of loneliness in Warwickshire is higher in urban areas than rural areas[25], with urban areas predicted to grow 4% faster on average from 2015-2035[24]. Issues of ageing population are therefore equally important in urban areas as in rural areas and social isolation and loneliness could become a more prevalent issue in Warwickshire.

ECONOMY AND EMPLOYMENT

SUMMARY OF CURRENT BASELINE

In Warwickshire, the main employment centres are located in Nuneaton, Rugby, Stratford-on-Avon and Leamington Spa, with the majority of smaller employment centres located in market towns such as Atherstone and Bedworth.

Rural areas of the county account for 34% of the county's economic output, almost double the national average for rural areas in 2014. Rural areas also account for 36% of businesses, above the national average of 23%[26], and 32% of the total workforce in Warwickshire county24.

Warwickshire's key economic sectors are listed in **Table D-3** [27]. This shows that the professional, scientific and technical is the largest employment sector in Warwickshire and the percentage of people working in this sector (19.5%) is higher than the national average (17.5%). The other key employment sectors include construction and business administration and support services. Warwickshire is generally an affluent county with low rates of unemployment (3.1%)21 and low claimant counts.

Table D-3 - Employment in key economic sectors (%)[27]

Industry	Warwickshire %	England %
Accommodation and food services	5.0	5.6
Agriculture, forestry and fishing	5.3	4.2
Arts, entertainment, recreation and other services	5.6	6.3

[24] Warwickshire's Rural Economy in 2016. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-954-540

[25] Loneliness and social isolation needs assessment: Warwickshire. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-644-270 (Accessed 01/07/2021)

[26] Department for Environment Food and Rural Affairs (2021) Statistical Digest of Rural England Businesses. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/984879/Businesses_March_2021_final_with_cover_page.pdf (Accessed 30/07/2021)

[27] Warwickshire County Council (n.d.) Economy and Employment. Available online at: https://data.warwickshire.gov.uk/economy-and-employment/ (Accessed 01/07/2021)

Industry	Warwickshire %	England %
Business administration and support services	9.5	8.8
Construction	10.3	12.8
Information and communication	7.1	8.7
Manufacturing	5.8	4.9
Professional, scientific and technical	19.5	17.5
Retail	7.2	7.6
Transport and storage	7.3	4.6
Other	17.5	19

Warwickshire has an employment rate of 80.5% (higher than the national average of 73.7%)27 and the percentage of working age households that are 'workless' is 11.3% (lower than the national average of 13.9%)21, with the majority of unemployed people living in urban areas of the county. The percentage of the population that is of working age is 61% (the national average is 62.3% and regional average is 61.7 %)15 and declining.

A higher proportion of people commute into North Warwickshire, Stratford and Warwick than commute out of these areas to go to work24. The local economy often benefits from in-commuting as a result. In North Warwickshire in-commuters are largely from areas outside the county such as Birmingham and Staffordshire[28]. In terms of out-commuters higher concentrations travel to rural local authority areas outside such as Harborough and Daventry24.

Average Gross Value Added (GVA) per head in 2018 for Warwickshire was £34,189, which has increased 30.55% since 2013, which is above the national growth of 21.35%[29]. Values from 2015 show that North Warwickshire has the highest GVA per head at £35,493, whereas, Nuneaton and Bedworth have the lowest GVA per head at £15,830[30].

[28] Coventry and Warwickshire Economic Assessment. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-688-358 (Accessed: 03/07/2021)

[29] ONS (2019) Regional gross value added (income approach). Available online at: https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalregionalgrossvalueaddedbalancedperheadandincomecomponents (Accessed: 03/07/2021)

[30] Office of National Statistics (2015) Gross Value Added, Regional GVA(I) by local authority in the UK Available online at: https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/regionalgvaibylocalauthorityintheuk (Accessed: 03/07/2021)

FUTURE TRENDS

The rising population in the county is accelerating the need for the delivery of additional housing, services and infrastructure. Growth in jobs is also anticipated in order to close the gap between increases in population and the need for employment. There is a need for improving accessibility to these jobs and training opportunities, particularly given that levels of workers commuting out of Warwickshire is significant amongst higher earners.

The population in Warwickshire is ageing, and the number of those who are of a traditional working age (16-64) is declining. The decline in the percentage of the population that is of working age will exert pressure on the labour market and economic issues could occur in terms of reduced local economic activity levels and supply of labour[31].

During the COVID-19 pandemic home-working has been encouraged for those who are able, leading to a short-term reduction in travel demand and increased financial pressure on the operators. This trend will likely continue as employers look to maintain flexible working conditions in future. In addition, peak periods for traffic congestion are likely to change with less people commuting for work. Public transport will need to adapt to these altered working and lifestyle patterns.

HUMAN HEALTH

SUMMARY OF CURRENT BASELINE

The average life expectancy (at birth) across Warwickshire is 79.8 years for males and 83.4 years for females. This is slightly higher than the national average for both males and females of 80.1 years and 83.9 years respectively[32]. Life expectancy is 6.6 years lower for men and 4.5 years lower for women in the most deprived areas of Warwickshire compared to the least deprived areas[33].

In Warwickshire, 69.4% of adults (19+) are physically active, compared with a national average of 66.4% and regional average of 63.1%. However, local authorities North Warwickshire and Nuneaton and Bedworth are both below the national average at 63% and 61.1% respectively[34].

The percentage of adults (18+) classified as overweight or obese in Warwickshire is 63%. This is higher than the national average of 62.8%, but lower than the regional average of 66.8%. Obesity in children in Warwickshire is lower than the national and regional averages with 21.1% of children

[31] Warwickshire's Local Economic Assessment – Key Issues Summary Paper. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-688-19 (Accessed: 03/07/2021)

[32] Warwickshire County Council (n.d.) Health and Social Care. Available online at: https://data.warwickshire.gov.uk/health-and-social-care/ (Accessed 07/07/2021)

[33] Public Health England (2019) Local Authority Health profiles. Available online at: https://www.bing.com/search?q=percetnage+change&cvid=d17e48fc135d4a7abea123a72ea179d9&aqs=edge..69i57j0l6.3200j0j1&pglt=2083&FORM=ANNAB1&PC=U531 (Accessed 07/07/2021)

[34] Warwickshire County Council (n.d.) Health and Social Care Reports. Available online at: https://data.warwickshire.gov.uk/health-and-social-care/report/view/c94a1d1706524f889be8e6e4ca02196b/E07000222

aged 4-5 years and 33.1% of children in year 6 classed as overweight or obese between 2019-2020 compared to the national averages of 23% and 35.2% respectively32.

Warwickshire's overall IMD 2019[35] places the county amongst the top 20% least deprived at county level nationally, ranked 124th out of the 152 upper tier authorities nationally (where a rank of 1 is the most deprived and 152 is the least deprived). In terms of health deprivation at county level, Warwickshire is ranked 103rd out of the 152 upper tier authorities and "is amongst the third healthiest areas in England"[36].

Table D-4 shows that at the lower tier local authority level, health deprivation is more varied (a rank of 1 is the most deprived and 326 is the least deprived). Health deprivation is highest in Nuneaton and Bedworth with a rank of 92nd whilst Stratford-on-Avon has the best with a rank of 235th.

Table D-4 - Local Authority IMD Health Rankings36

Local Authority	IMD Health Rank
North Warwickshire	159
Nuneaton and Bedworth	92
Rugby	207
Stratford-on-Avon	235
Warwick	199

Poor air quality is a significant public health issue[37] and there is clear evidence that particulate matter has a significant contributory role in mortality. Air pollution can also be linked to cardiovascular disease, diabetes and dementia. Sufferers of chronic respiratory diseases such as chronic obstructive pulmonary disease (COPD) and asthma are especially vulnerable to the effects of air pollutants. Air pollution has also been shown to have an increased health impact on those in lower socio-economic groups.

Warwickshire has a considerably lower mortality rate from COPD (37.2 people per 100,000 people) than the national average of 50.4 people per 100,000 people[38]. The county also has the lowest

[35] Public Health England (20190 Local Authority Health profiles. Available online at: https://fingertips.phe.org.uk/profile/health-profiles/data#page/7/gid/1938132696/pat/6/par/E12000005/ati/201/are/E06000051/iid/90366/age/1/sex/2/cid/4/tbm/1/page-options/car-do-0_ine-ao-0_ine-yo-3:2017:-1:-1_ine-ct-71_ine-pt-0 (Accessed 07/07/2021)

[36] Warwickshire Observatory Briefing Note (2015) Indices of Multiple Deprivation. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-1014-309 (Accessed 07/07/2021)

[37] Department for Environment Food and Rural Affairs, Air Quality: Public Health Impacts and Local Actions. Available online at: https://laqm.defra.gov.uk/documents/air_quality_note_v7a-(3).pdf (Accessed 30/07/2021)

[38] Public Health England (2019) Inhale - Interactive Health Atlas of Lung conditions in England. Available online at: https://fingertips.phe.org.uk/profile/inhale/data#page/0/gid/8000003/pat/6/par/E12000005/ati/302/iid/1204/age/1/sex/4/cid/4/tbm/1 (Accessed: 07/07/2021)

mortality rate in the West Midlands. Within the districts, Nuneaton has the highest mortality rate of 54 per 100,000 people above national average whilst Stratford-on-Avon has the lowest mortality rate of 26.1 per 100,000 people.

Social isolation can lead to loneliness which has the potential to undermine well-being thereby impacting negatively on people's quality of life. Loneliness can have a huge impact on the wellbeing of many people particularly older people, those with disabilities and new and expectant mothers. It can often result in unhappiness, lowering of self-confidence and ability to reach out for help.

According to Age UK, the majority of Warwickshire is within very low and low risk areas for loneliness, with areas in the UK ranked from 1 high risk to 32,844 very low risk. There are a handful of areas that are classified as very high risk of loneliness. These include but are not limited to Nuneaton and Bedworth area 006A (ranked 646 in England), area 015C (ranked 917 in England), area 005A (ranked 957), area 013E (ranked 1,375 in England) , North Warwickshire area 003B (ranked 783 in England) and Rugby area 003C (ranked 786 in England).

FUTURE TRENDS

The ageing population in Warwickshire is expected to continue to grow in the future, which may cause strain on the transport industry due to rising inequalities in access to healthcare, community facilities and other services.

A population with a larger proportion of older people will likely result in an increase in the number of people in Warwickshire with physical and sensory impairments which could result in a greater demand for access to health and social care services.

Social isolation and loneliness are also likely to become more prevalent in Warwickshire25 as more people work from home, particularly due to and following COVID-19 pandemic, and as the population ages. This has the potential to undermine well-being, thereby impacting negatively on people's quality of life. Social isolation and loneliness are also associated with increasing the likelihood of sensory and mobility impairments and deteriorating health[39].

The anticipated population growth and convenience of vehicle travel is likely to result in an increase in the number of private vehicles on the roads. This could have subsequent cumulative effects on air quality, noise pollution and public health if current trends continue.

Reduced levels of physical activity is a growing issue nationally, with fewer people reporting that they are achieving the level of activity recommended by the NHS. Effective transport planning can play a role in encouraging active transport choices (e.g. walking and cycling) as well as improve accessibility to sports and recreation facilities. Continued traffic growth without adequate provision for pedestrian and cyclists' facilities is unsustainable.

Air pollution has been linked to diabetes and dementia – both chronic illnesses in the UK are expected to rise in future. Increased mortality and morbidity amongst diabetics is associated with

[39] Age UK (2016). Risk of Loneliness. Available online at: https://www.ageuk.org.uk/our-impact/policy-research/loneliness-research-and-resources/loneliness-maps/ (Accessed 07/07/2021)

increased nitrogen dioxide concentrations with long term exposure to traffic borne air pollution positively correlating with incidence of type two diabetes and increased mortality among diabetics[40].

COMMUNITY SAFETY

SUMMARY OF CURRENT BASELINE

On average 64.3 people (per 100,000 resident population) are killed or seriously injured on the roads in Warwickshire. This is significantly higher than the regional average of 38.4 per 100,000, and the England average of 42.6 per 100,000[41].

There were 1,108 road accidents in Warwickshire in 2019, of which 246 were serious and 34 were fatal[42]. The highest number of fatal, serious and total accidents occur on rural A roads. **Table D-5** shows the breakdown of accidents by severity and road class in Warwickshire in 2019.

[40] Committee on the Medical Effects of Air Pollutants (COMEAP), The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom, 2010, [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/304641/COMEAP_mortality_effects_of_long_term_exposure.pdf (Accessed: 29/07/2021)

[41] Public Health England, Public Health Profiles: Killed and Seriously Injured (KSI) Casualties on England's Roads 2016-2018. Available online at: https://fingertips.phe.org.uk/search/road#page/3/gid/1/ati/302/iid/11001/age/1/sex/4/cid/4/tbm/1/page-options/car-ao-1_car-do-0 (Accessed: 12/07/2021)

[42] Department for Transport, Road Accidents and Safety Statistics, 2021

Table D-5 - Accident Severity by Road Class in 2019

Accident Severity	Road Class	Number of Accidents
Fatal	A	15
	B	7
	Motorway	4
	Unclassified	8
	Total	**34**
Serious	A	87
	B	65
	Motorway	14
	Unclassified	80
	Total	**246**
Slight	A	313
	B	184
	Motorway	74
	Unclassified	257
	Total	**828**

Car occupants account for the highest proportion of road traffic casualties in Warwickshire for 2020, with 63% (715) of the total people killed or seriously injured from an accident occurring in a car[43]. This is followed by pedestrians (11%), cyclists (10%) and motorbikes (8%) and van/goods (7%). However, in terms of casualty rates, vulnerable road users (usually defined as pedestrians, pedal cyclists and motorcyclists), have much higher casualty rates per mile travelled in comparison with the other road user groups[44].

[43] Warwickshire County Council. Road Safety in Warwickshire 1-year Overview Report, 2021. Available online at: https://app.powerbi.com/view?r=eyJrIjoiYzAwOTk3ZWUtYjNlOC00ZWYzLWE4ODEtNTNmOWNiOTg3NmZmIiwidCI6Ijg4YjBhYTA2LTU5MjctNGJiYi1hODkzLTg5Y2MyNzEzYWM4MiIsImMiOjh9&pageName=ReportSection (Accessed 12/07/2021)

[44] Department for Transport (2020) Reported road casualties in Great Britain: 2019 annual report. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/922717/reported-road-casualties-annual-report-2019.pdf (Accessed: 12/07/2021)

Young drivers and car passengers between 17-24 are more likely to be injured in a road accident than older car drivers and passengers44. In 2020 the total people killed or seriously injured on roads in Warwickshire was highest between the age 16-25 (23%) followed by 26-35 (21%).

Warwickshire falls within the Midland division of the 2019/20 Statistics Report published by the British Transport Police45. There was a decrease in the total number of notifiable crimes and offences in the Midland division between 2018-19 and 2019-20 of 4.75% and a decrease in the number of sexual offences of 9.15%. The number of reported sexual offences committed on public transport in the UK decreased by 7.5% in 2019-2020 (60% of these assaults were against females) whilst the number of violent offences increased by 1.1%[45].

The overall crime rate in Warwickshire in 2020 was 64 crimes per 1,000 people, with the highest (79.6 crimes per 1,000 people) in Nuneaton and Bedworth and lowest (52 crimes per 1,000 people) in Stratford-on-Avon[46]. The most common crimes were violence and sexual offences, which affected 28 out of 1,000 residents.

According to Imperial College London research, women feel 10% less safe than men on public transport[47]. Since the 2017 #MeToo movement highlighted women's experiences of harassment, women are 2.5% more likely to report feeling unsafe on public transport since[43]. Women are less likely to feel safe at night, with the latest ONS statistics stating that just 24% of women felt 'very safe' walking home in the dark, compared to 46% of men[48].

In light of these statistics and recent events, the emerging Police and Crime Plan for Warwickshire (due in early 2022) a key area of focus will be to tackle violence against women and girls. This will provide great support to the government's Tackling Violence Against Women and Girls Strategy[49].

FUTURE TRENDS

The number of people seriously hurt or killed on the roads is significantly higher than the England average in Warwickshire. As the population increases, there are expected to be a greater number of vehicles on the roads, which could result in an increase in the number of accidents.

---

[45] British Transport Police, Statistical Bulletin 2019-2020, 2021, [online] Available at: https://www.btp.police.uk/SysSiteAssets/foi-media/british-transport-police/other-information/british-transport-police-statistical-bulletin-2019-2020.pdf (Accessed 12/07/2021)

[46] Warwickshire County Council (n.d.) Crime and Community Safety. Available online at: https://data.warwickshire.gov.uk/crime-and-community-safety/ (Accessed: 12/07/2021)

[47] Imperial College London, C Brogan, #MeToo: More women report feeling unsafe on public transport since movement, 2021 available online at: https://www.imperial.ac.uk/news/229913/metoo-more-women-report-feeling-unsafe/

[48] ONS, Estimates of proportions for how safe people feel walking alone after dark, by respondent sex, Crime Survey for England and Wales, year ending, March 2020 Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/adhocs/13019estimatesofproportionsforhowsafepeoplefeelwalkingaloneafterdarkbyrespondentsexcrimesurveyforenglandandwalesyearendingmarch2020

[49] UK Government, Tackling Violence Against Women and Girls, 2021, available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005630/Tackling_Violence_Against_Women_and_Girls_Strategy-July_2021-FINAL.pdf

Highways England has set a clear long-term goal to bring the number of people killed or injured on the trunk road network as close as possible to zero by 2040. Highways England have committed that, by the end of 2020, 90% of travel on the roads for which it has responsibility will be on roads with a 3-star safety rating or better[50].

The Office for Rail and Road's annual assessment in 2020 reported that this target was met, with an estimated 95% of travel on roads rated at least 3-star in 2019[51]. This could help contribute to a reduction in serious road accidents in Warwickshire.

BIODIVERSITY AND NATURAL CAPITAL

SUMMARY OF CURRENT BASELINE

There are a range of internationally, nationally and locally designated sites within the county of Warwickshire including[52]:

- 62 Sites of Special Scientific Interest (SSSI)
- 21 Local Nature Reserves (LNR); and
- over 600 Local Wildlife Sites (LWS).

The only internationally designated site within Warwickshire is the Ensor's Pool Special Area for Conservation (SAC), which is associated with white-clawed crayfish. There are no Special Protection Areas (SPAs) or Ramsar sites within Warwickshire.

There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England under section 41 of the Natural Environment and Rural Community (NERC) Act 2006[53]. Priority habitats are a focus for conservation action in England. Across Warwickshire there are a large range of priority habitats including (but not limited to) marsh and swamp, wet grassland and wet woodland, reed beds, lowland heathland, lowland calcareous grassland, lowland acid grassland, roadside verges, wood-pasture, parkland and veteran trees.

[50] Highways England (2015) Highways England Delivery Plan 2015-2020. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/424467/DSP2036-184_Highways_England_Delivery_Plan_FINAL_low_res_280415.pdf (Accessed 12/07/2021)

[51] Office of Rail and Road (2020) Annual Assessment of Highways England End of Road Period 1 2015-2020.Available online at: https://www.orr.gov.uk/sites/default/files/om/ORR-Annual-Assessment-of-Highways-England-End-of-Road-Period-1-DIGITAL.pdf (Accessed 12/07/2020)

[52]Warwickshire Wildlife Trust, Wildlife and Planning Guidance: Wildlife and the Law. Available online at: https://www.warwickshirewildlifetrust.org.uk/sites/default/files/2018-03/WILDLIFE%20AND%20THE%20LAW%20-%20Wildlife%20and%20Planning%20Guidance.pdf (Accessed 12/07/2021)

[53] Natural Environment and Rural Community (2006). Available online at: https://www.legislation.gov.uk/ukpga/2006/16/contents (Accessed: 12/07/2021)

The UK National Ecosystem Assessment (UK NEA)[54] shows loss, fragmentation and deterioration of natural habitats in the UK since the 1940s has caused a decline in the provision of many ecosystem services.

Natural capital is a key theme in the UK Government's 25-year Environment Plan: A Green Future[55]. The UK's natural capital accounts[56] show that approximately 20-25 million tonnes of carbon has been sequestered by vegetation in the UK each year between 2007 and 2015, whilst around 1.5 million tonnes of air pollutants have been removed each year. This equates to a monetary value of approximately £1.5 billion for carbon sequestration and £1 billion for pollution removal in 2015. Natural capital therefore has a mitigating effect on the emissions of carbon and air pollutants associated with transport.

Agricultural land accounts for the highest percentage of total land cover in Warwickshire with a combined total of 83.6%, of which improved grassland makes up 33.2%[57]. Due to the high cover of agricultural land, food provision is an important ecosystem service within Warwickshire. In addition to primary agricultural products, farmland can help prevent soil erosion, support flood risk through surface water storage and runoff attenuation and sequester carbon.

The second most abundant habitat type found in Warwickshire is freshwater habitat, making up 14.3% of total land area with active flood plains (6.6%) and woodland (6.5%) having the largest habitat extent57. Freshwater habitats can help regulate flooding, erosion, water quality and provide biodiversity and cultural services.

The quality of these habitats is mixed57:

- Most of the water bodies in the county of Warwickshire have good water quality;
- Most water bodies have moderate, poor or bad nutrient status and received low hydrological (naturalness or river flow) status; and
- The nutrient status of the soil in Warwickshire was considered low value for the majority of the country, besides a few hotspots of high value areas Kenilworth Abbey & Arden, Henley-in-Arden and Rugby. However, Natural England's Agricultural Land Classification rates the majority of the soil in Warwickshire to be of moderate to good quality58.

[54] UK National Ecosystem Assessment (2011) The UK National Ecosystem Assessment Technical Report. UNEP-WCMC, Cambridge.

[55] A Green Future: Our 25 Year Plan to Improve the Environment (2018) Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf (Accessed 02/05/2021)

[56] Office for national Statistics (2019) UK natural capital accounts: Estimates of the financial and societal value of natural resources to people in the UK.

[57] Natural England (2021) Warwickshire Natural Capital Atlas. Available online at: http://publications.naturalengland.org.uk/publication/6672365834731520 (Accessed 12/07/2021)

[58] Natural England Regional Agricultural Land Classification (2010). Available online at: http://publications.naturalengland.org.uk/category/5954148537204736

FUTURE TRENDS

Studies such as the 'State of Nature 2016' report[59] and Defra's 25 Year Environment Plan[60] have shown that national biodiversity has been declining despite the prevalence of conservation efforts, and approximately 13% of all species across the UK are under threat of extinction. The most important habitats (those for which the UK has a European level responsibility) also remain in relatively poor condition (71% unfavourable for the UK versus an EU average of 30%). A rising population and associated need for development may cause further loss, fragmentation and degradation of habitats, causing a further decline in biodiversity.

Development of greenbelt land in particular is likely to encourage less sustainable travel methods (i.e. use of the private car), given these areas are likely to have limited existing transport infrastructure available. This may have knock-on effects on habitats sensitive to air quality and disturbance.

The declining trend in the provision of many ecosystem services reported in the UK NEA is expected to continue – in part due to the continuing deterioration, loss and fragmentation of habitats, as reported in the national 'State of Nature 2019' report59.

An increase in the number of private vehicles on the roads and associated increases in noise pollution, air pollution and contaminated surface water run-off could restrict the ability of existing roadside habitats (including trees) to reduce these impacts. Even with the transition towards electric vehicles, particulate emissions are predicted be problematic into the future due to the impacts of non-exhaust emissions e.g. tyre wear.

However, there is also an increasing trend amongst Government and businesses to be "Future Ready", which includes addressing issues surrounding biodiversity, resource use, and climate change. Investing in natural capital and delivering resilient nature-based solutions is an effective way of addressing these issues simultaneously. As such, the multiple benefits that arise from taking a natural capital approach significantly contribute to sustainable development, often at lower cost than more conventional infrastructure[61].

Biodiversity and natural capital are also under threat from climate change, with changing temperatures and extreme weather events resulting in the loss, degradation and movement of species and habitats. Increased frequency and severity of flooding will be a potential threat to Warwickshire.

---

[59] State of Nature (2016). Available online from: https://www.rspb.org.uk/our-work/conservation/projects/state-of-nature-reporting (Accessed 12/07/2021)

[60] HM Government. 2018. A Green Future: Our 25 Year Plan to Improve the Environment Annex 1: Supplementary evidence report [online] available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/673492/25-year-environment-plan-annex1.pdf (Accessed 12/07/2021)

[61] IPBES (2019) Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Available online at: https://ipbes.net/global-assessment (Accessed 12/07/2021)

LANDSCAPE AND TOWNSCAPE

SUMMARY OF CURRENT BASELINE

An area of outstanding natural beauty (AONB) is land protected by the Countryside and Rights of Way Act 2000[62] to conserve and enhance its natural beauty[63]. There is one AONB within the southern fringe of Warwickshire - the Cotswolds AONB.

Warwickshire falls within a number of Natural England's National Character Areas (NCAs)[64]. These are shown in **Table D-6.**

Table D-6 - National Character Areas within Warwickshire

NCA	Description
69: Trent Valley Washland (NE475)	Narrow, linear and low-lying landscape often clearly delineated at its edges by higher ground, and it is largely comprised of the flat flood plains and gravel terraces of the rivers. It comprises the river flood plain corridors of the middle reaches of the River Trent's catchment in the heart of England.
67: Cannock Chase and Cank Wood	Situated on higher land consisting of sandstone and the South Staffordshire Coalfield, extending north of the Birmingham and Black Country conurbation.
72: Mease/Sence Lowlands (NE421)	Gently rolling agricultural landscape centred around the rivers Mease, Sence and Anker. These lowlands retain a rural, remote character, with small villages, red brick farmsteads and occasional historic parkland and country houses. The area also has 139 ha of nationally designated SSSI (River Mease and Ashby Canal).
94: Leicestershire Vales (NE532)	A large, relatively open, uniform landscape composed of low-lying clay vales interrupted by a range of varied river valleys. The north of the area has a predominance of settlements and a general lack of tranquillity; this contrast strongly with the distinctly more rural feel in the southern part of the area, where a mixture of arable and pastoral farmland is found.
95: Northamptonshire Uplands (NE565)	The landscape comprises gently rolling, limestone hills and valleys capped by ironstone-bearing sandstone and clay Lias, with many long, low ridgelines. Several major rivers including, the Cherwell, Avon, Welland, Tove, Ouse, Nene and Ise, flow out of the area. The area is notable for extensive areas of open field systems with ridge and furrow

[64] Natural England (2014). Corporate report: National Character Area profiles. Available online at: https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles#ncas-in-west-midlands (Accessed 12/07/2021)

NCA	Description
	and the earthworks of deserted and shrunken settlements which occur throughout.
96: Dunsmore and Feldon (NE469)	Rural, agricultural landscape, crossed by numerous small rivers and tributaries and varying between a more open character in the Feldon area and a wooded character in Dunsmore.
97: Arden (NE337)	The landscape comprises farmland and former wood-pasture lying to the south and east of Birmingham, including part of the West Midlands conurbation. The landscape of the lower lying central area is gently rolling with small fragmented semi-natural and ancient woodlands.
106: Severn and Avon Vales (NE336)	The lower valleys of the rivers Severn and Avon dominate this low lying open agricultural vale landscape made up of distinct and contrasting vales, including Evesham, Berkeley, Gloucester, Leadon and Avon, with Cotswold outliers like Bredon Hill punctuating the otherwise flat vale landscape.
107: Cotswolds (NE420)	The best-known section of the predominantly Oolitic Jurassic Limestone belt that stretches from the Dorset coast to Lincolnshire. The dominant pattern of the Cotswold landscape is of a steep scarp crowned by a high, open wold; the beginning of a long and rolling dip slope cut by a series of increasingly wooded valleys

Key settlements in Warwickshire include Nuneaton, Rugby, Royal Leamington Spa, Bedworth, Stratford-upon-Avon and Warwick. Between these market towns there are dispersed villages and farmsteads which spread across the countryside.

The highway network is extensive covering 3,850km[65]. Warwickshire is traversed by motorways and trunk roads including the M6, M6 Toll, M40, M42, M45, M69, A5, A38, A45 and A46. A mixture of inter-city, cross-country and local rail services provide access to the West Coast Main Line at Coventry, Rugby and Nuneaton, with inter-city services to Birmingham New Street, London Euston and the north west of England. There is no rail station in the large town of Kenilworth[66].

There are seven national cycle routes in Warwickshire which provide links between towns across most of the county, with around a third of the network consisting of traffic-free paths:

- Route 5 - Oxford – Stratford-upon-Avon – Birmingham
- Route 41 - Stratford-upon-Avon – Warwick and Warwick – Leamington – Rugby: ‘The Lias Line’

[65] Warwickshire Local Transport Plan 2011-2026:Transport Asset Management Plan (2011) Available online at: https://api.warwickshire.gov.uk/documents/WCCC-930-51#:~:text=transport%20network%20in%20Warwickshire.%20The%20Plan%20covers%20all,purpose%20in%20order%20to%20serve%20the%20needs%20of (Accessed 13/07/2021)

[66] Warwickshire County Council, Warwickshire Local Transport Plan 2011 – 2026. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-630-116 (Accessed 13/07/2021)

- Route 48 - Cirencester – Northleach and Moreton-in-Marsh – Southam
- Route 52 - Warwick – Kenilworth – Coventry – Nuneaton
- Route 523 - Kenilworth – Burton Green
- Route 524 - Nuneaton – Tamworth

Major tourist attractions in Warwickshire include:

- Stratford-upon-Avon (Shakespeare attractions);
- Warwick Castle;
- Kenilworth Castle;
- Hatton Country World;
- National Trust properties (five in total);
- National Agriculture Centre;
- British Motor Museum;
- Lord Leycester Hospital; and
- Cotswold AONB.

Tranquillity is a natural resource, and an essential quality of the countryside[67]. It enables people to appreciate the beauty and harmony of the natural world and is a central part of why many want to spend time there. Tranquillity is considered to be a significant asset of landscape.

According to the Campaign to Protect Rural England's (CPRE) Intrusion Map[68] the areas described as being the most tranquil are located in the south of the county, in areas situated within the Cotswolds. Other tranquil areas include areas south of Rugby, west and south west of Warwick and areas west of Nuneaton. The least tranquil areas include the main settlements of Warwick, Leamington Spa, Rugby, Stratford-upon-Avon, Bedworth and Nuneaton.

FUTURE TRENDS

Designated landscapes, such as AONBs, are given the highest status of protection against development within their boundaries to conserve their landscape and scenic beauty. However, they may still be impacted indirectly through changes to their setting and tranquillity due to increased traffic flows, change in land use, visitor pressure and light and noise pollution.

Climate change will also put pressure on the Cotswolds AONB as new pests and diseases emerge and extreme weather increases stresses on nature conservation. The pressure for economic development and growth, whilst dealing with public financial cuts, is increasing the need for volunteer efforts and funding for the management of Cotswold AONB[69].

[67] Campaign to Protect Rural England, Give Peace a Chance, 2015, available online at: https://www.cpre.org.uk/wp-content/uploads/2019/11/CPRE_-_Give_peace_a_chance_-_May_2015.pdf

[68] Campaign to Protect Rural England, Intrusion Map, 2007, Available online at: https://www.cpre.org.uk/resources/tranquility-map-england/

[69] Cotswold National Landscape, Cotswolds AONB Management Plan 2018-2023. Available online at: https://www.cotswoldsaonb.org.uk/wp-content/uploads/2018/12/Management-Plan-2018-23.pdf (Accessed 13/07/2021)

Landscape and townscape character and quality are under particular threat from future development (including the construction and operation of transport infrastructure) through, for example, loss of tranquillity, increased lighting (particularly into dark night skies), visual intrusion, and the incremental loss of landscape features and characteristic elements.

Similarly, pressures from expanding populations put more strain on existing systems, and more pressure on recreational landscapes and tourist attractions.

HISTORIC ENVIRONMENT

SUMMARY OF CURRENT BASELINE

There are a number of designated assets throughout Warwickshire[70], including:

- 198 Scheduled Monuments;
- 6,009 Listed Buildings;
- Battle of Edgehill 1642 Registered Battlefield; and
- 32 Registered Parks and Gardens.

Local planning authorities are obliged to designate conservation areas in their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. There are 138 conservation areas located in Warwickshire.

Historic England's Heritage at Risk (HAR) programme helps to understand the overall state of England's historic sites. It identifies those sites that are most at risk of being lost as a result of neglect, decay or inappropriate development. In Warwickshire there are 63 heritage assets on the HAR register out of 415 for the West Midlands. The majority of these (49.2%) are archaeology entries, followed by building and structure entries (27%), places of worship (15.9%), parks and gardens (4.8%) and conservation areas (3.2%).

The Cotswold AONB is a rich archaeological resource, which was one of the key reasons for its designation. Traces of earlier human activity can be found across the AONB. Evidence of occupation and management of land is seen in the Neolithic long barrows, such as Hetty Peglers Tump and ridge and furrows across the landscape evidence of pasty agricultural practices. The fine architecture carved out in the soft limestone of the houses and churches in Cotswold towns and villages demonstrated the generated wealth of wool merchants from the middle ages onwards[71].

FUTURE TRENDS

The number of vehicles on the roads is likely to increase as Warwickshire's population rises, increasing air pollution and road traffic. This has the potential to impact and degrade the settings of listed building, AONB, scheduled monuments and parks and gardens.

[70] Historic England- Search the List. Available online at: https://historicengland.org.uk/listing/the-list/ (Accessed 02/08/2021)

[71] Cotswold Natural Landscape- Historic and Cultural Heritage. Available online at: https://www.cotswoldsaonb.org.uk/our-landscape/historic-cultural-heritage/ (Accessed 13/07/2021)

Expansion of roads to accommodate the increased number of private vehicles and road traffic will put pressure on land space and could result in land take from heritage assets.

WATER ENVIRONMENT

SUMMARY OF CURRENT BASELINE

Warwickshire falls within the following river basin districts:

- Humber;
- Severn; and
- Thames.

The Humber river basin covers the Tame Anker and Mease and the Soar catchments. These encompass 75 waterbodies in four operational catchments that fall within the county. The Severn river basin covers the Warwickshire Avon catchment, which encompass 78 waterbodies in three operational catchments that fall within the county. The Thames river basin covers Cherwell and Ray and Cotswold catchments. These encompass 42 waterbodies in two operation catchments that fall within the county. The Plan area falls primarily within two hydrological catchments, associated with the Severn and the Humber estuaries respectively. The Severn Estuary Special Area of Conservation and Ramsar Site is hydrologically linked to the designated site through the Warwickshire River Avon, while the Humber Estuary is linked through the rivers Cole, Anker, Tame and Blythe.

The Water Framework Directive (WFD) sets an objective of aiming to achieve at least 'good' status for all waterbodies by a set deadline specific for each waterbody. Most of the monitored waterbodies are 'main rivers' that are under the jurisdiction of the Environment Agency.

The quality of these habitats in Warwickshire is mixed57. Most of the water bodies have not been physically modified and are of good chemical status. However, the majority of the water bodies have moderate to bad nutrient (phosphorus) status. They also have a moderate to bad ecological status, and a failing chemical status, under the WFD[72].

The Humber River Basin Management Plan[73] sets out objectives for all waterbodies in the river basin district. Between 2015 and 2027, 73% of waterbodies have an objective of maintaining or aiming to achieve 'good' ecological status, and >99%% of waterbodies have an objective of maintaining or aiming to achieve 'good' chemical status.

[72] Environment Agency (2019) Avon Warwickshire Management Catchment. Available online at: https://environment.data.gov.uk/catchment-planning/ManagementCatchment/3007/Summary (Accessed 14/07/21)

[73] Department for Environment Food & Rural Affairs (2015) Water for life and livelihoods - Part 1: Humber river basin district - River basin management plan. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718328/Humber_RBD_Part_1_river_basin_management_plan.pdf (Accessed 03/08/2021)

The Severn River Basin Management Plan[74] sets out objectives for all waterbodies in the river basin district. Between 2015 and 2027, 88% of waterbodies have an objective of maintaining or aiming to achieve 'good' ecological status, and 5% of waterbodies have an objective of maintaining or aiming to achieve 'good' chemical status.

The Thames River Basin Management Plan[75] sets out objectives for all waterbodies in the river basin district. Between 2015 and 2027, 56% of waterbodies have an objective of maintaining or aiming to achieve 'good' ecological status, and >99%% of waterbodies have an objective of maintaining or aiming to achieve 'good' chemical status.

Table shows the water quality of the 160 waterbodies in the three river basin districts that fall within Warwickshire for 2019 cycle72.

Table D-7 - Water Framework Classifications, 2019

	Operational Catchments	Classification						
		Total Water Bodies	Ecological Status				Chemical Status	
			Bad	Poor	Moderate	Good	Fail	Good
Severn river basin	Avon – Midlands West	22	0	6	15	1	22	0
	Avon Rural Rivers and Lakes	35	1	8	26	0	35	0
	Avon Urban Rivers and Lakes	21	0	8	13	0	21	0
Humber river basin	Blythe River	5	0	3	2	0	5	0
	Sence Anker and Bourne Rivers and Lakes	13	1	6	6	0	13	0
	Tame Lower Rivers and Lakes	22	0	8	14	0	22	0

[74] Department for Environment Food & Rural Affairs (2015) Water for life and livelihoods - Part 1: Severn river basin district - River basin management plan. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718336/Severn_RBD_Part_1_river_basin_management_plan.pdf (Accessed: 14/07/2021)

[75] Department for Environment Food & Rural Affairs (2015) Water for life and livelihoods - Part 1: Thames river basin district - River basin management plan. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718342/Thames_RBD_Part_1_river_basin_management_plan.pdf (Accessed 03/08/2021)

	Operational Catchments	Classification						
		Total Water Bodies	Ecological Status				Chemical Status	
			Bad	Poor	Moderate	Good	Fail	Good
Thames river basin	Cherwell	24	0	10	13	1	24	0
	Evenlode	18	0	6	12	0	18	0
	Overall Total	**160**	**2**	**55**	**101**	**2**	**160**	**0**

Of the 160 waterbodies, only two are achieving 'good' ecological status, falling far short of the WFD target. Of the remaining waterbodies, 63% are achieving 'moderate' ecological status, whilst 35.6% are achieving 'bad' or 'poor' ecological status.

All waterbodies failed based on their chemical status. The main reason for the failure is predominantly due to agriculture and land management issues, where there is pollution from rural areas, mainly phosphate, and physical modifications which change the natural flow of the river. This is no surprise given that 80% of the Severn river basin district land is used for agriculture and forestry[76]. The catchments that incorporate more urban areas have issues with urban and transport pollution.

Pollution from wastewater and from towns, cities and transport are also a predominate cause for the waterbodies not achieving 'good' ecological or chemical status. The percentage of water bodies within each river basin districts affected by pollution from wastewater and pollution from towns, cities and transport is shown in **Table** .

Table D-8 - Waterbodies affected by Pollution Sources (%)

River Basin District	Pollution from wastewater	Pollution from towns, cities and transport
Humber	38%	16%
Severn	29%	12%
Thames	45%	17%

National flood zone data correlates with the location of main rivers and ordinary watercourses as areas with the greatest risk of flooding. The Government's flood map for planning[77] shows that the

[76] Environment Agency (2019) Severn Management Catchment Available at: https://environment.data.gov.uk/catchment-planning/ManagementCatchment/3116 (Accessed 04/06/2021)

[77] Environment Agency, Flood Map for Planning. Available online at: https://flood-map-for-planning.service.gov.uk/ (Accessed: 14/07/2021)

majority of Warwickshire sits within flood zone 1 where land assessed as having a less than 1 in 1,000 (<0.1%) annual probability of river or sea flooding. There is a significant area of flood zone 3 located in Stratford-upon-Avon. This is land assessed as having a 1 in 100 or greater (>1%) annual probability of river flooding, or a 1 in 200 or greater (>0.5%) annual probability of flooding from the sea, in any year.

FUTURE TRENDS

In terms of water quality, the requirements of the WFD should lead to continued improvements to water quality in watercourses. However, water quality is also likely to continue to be affected by pollution incidents in the area runoff from urban, transport and agricultural areas; the presence of non-native species; and physical modifications to water bodies.

Maintaining water supply in Warwickshire will also be challenging. Deficits may develop across England by the 2050s due to climate change alone; these would be exacerbated by population growth.

At a regional level, the future implications of climate change projections include water shortages; increase in pluvial and fluvial flooding leading to damage to property and disruption to economic activity; and higher incidence of damage to transportation, utilities and communications infrastructure caused by an increase in the number of extreme weather events (e.g. heat, high winds and flooding).

AIR QUALITY

SUMMARY OF CURRENT BASELINE

Reducing emissions from road transport remains a significant challenge in the UK. Although GHG emissions have fallen in the UK by 32% from 1990-2017, there has been a 29% increase in road traffic from 1990 and 2018. GHG emission from road transport have also increased by 6% from 1990 to 2017, contributing to around a fifth of UK greenhouse gas emissions in 2017[78].

Air Quality Management Areas (AQMA) are predominantly associated with vehicle emissions, principally NO_x, although a few have been declared for PM_{10}. As such, AQMAs are mostly located within urban areas and sections of the road network which are heavily trafficked and frequently congested. In Warwickshire, there are currently 11 AQMAs: Warwick District Council has five AQMAs declared for NO_2, Rugby Borough Council and North Warwickshire Borough Council both have one AQMA, Stratford on Avon District Council and Nuneaton and Bedworth Borough Council both have two AQMAs.

[78]Office for National Statistics (2019) Road transport and air emissions. Available online at: https://www.ons.gov.uk/economy/environmentalaccounts/articles/roadtransportandairemissions/2019-09-16 (Accessed 03/08/2021)

The Department for Environment, Food and Rural Affairs (Defra) air quality statistics from 1987 to 2019 show significant downward long-term trends in both NO_2[79] and NO_x concentrations in the UK[80]. There has been a 71% reduction in annual national NO_x emissions between 1970 and 2019, and a 48% reduction in annual mean roadside NO_2 emissions between 1997 and 2019[81].

Exposure to ozone (O3) induces effects on health and the environment, causing respiratory difficulties in sensitive people and possible damage to vegetation and ecosystems[82]. The Air Quality Standards Regulations 2010 set a threshold for 8-hour mean concentrations of O3 of 120 µg/m^3. This is a level at which acute effects on public health are likely to be small. The target is for this not to be exceeded more than 25 times averaged over three years and the long-term objective is for this not ever to be exceeded. Warwickshire is within the West Midlands zone (zone code UK0035) for ambient air quality reporting. Like all zones in 2019, the West Midlands met the target but exceeded the long-term objective, with exceedances on 1-10 days per year averaged over 2017-2019[83]. Ozone can form when exhaust emissions (NOx) and hydrocarbons (VOCs) are together in the presence of sunlight.

Airports can have an adverse effect on air quality principally from surface access via road transport. Airports in Warwickshire comprise of smaller commercial, public and private airfields, with the closest international airport located in Birmingham. The impact of airports and surface access on Warwickshire's air quality is limited due to the limitations of small airfields and absence of a large airport.

FUTURE TRENDS

The 29% increase in road traffic from 1990 and 2018 and 6% increase in GHG emission from 1990 to 2017 road is likely to continue. Brexit has the potential to bare upon the rate of population growth which in turn will drive road traffic.

The number of vehicles on the roads is likely to increase as Warwickshire's population rises, putting air quality at further risk of degradation. More severe and frequent heat episodes (associated with

[79] Department for Environment, Food and Rural Affairs (2021) National Statistics: Concentrations of Nitrogen Dioxide. Available online at: https://www.gov.uk/government/statistics/air-quality-statistics/ntrogen-dioxide#trends-in-concentrations-of-no2-in-the-uk (Accessed 14/07/2021)

[80] Department for Environment, Food and Rural Affairs (2021), National Statistics: Emissions of Air Pollutants in the UK – Nitrogen Oxides (NO_x). Available online at: https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-nitrogen-oxides-nox#trends-in-total-annual-emissions-of-nitrogen-oxides-in-the-uk-1970-to-2019 (Accessed 14/07/2021)

[81] Department for Environment, Food and Rural Affairs, ENV01 – Emissions of Air Pollutants: UK Annual Emissions of Nitrogen Oxides by 2019 Major Emissions Sources: 1990, 2005, 2018 and 2019, 2021, Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/960193/Figure07_NOx_sector.csv/preview (Accessed 04/08/2021)

[82] European Environment Agency, Tropospheric Ozone in EU - The consolidated report. Available online at: https://www.eea.europa.eu/publications/TOP08-98 (Accessed 14/07/2021)

[83] Department for Environment, Food and Rural Affairs (2020) Air Pollution in the UK 2019. Available online at: https://uk-air.defra.gov.uk/library/annualreport/ (Accessed 15/07/2021)

the changing climate) can also worsen air quality and therefore asthma, respiratory diseases and allergic reactions, without further intervention.

There are currently expansions plans for Birmingham Airport, increasing its capacity and improving infrastructure by 2033[84]. This development could have effects on air quality in Warwickshire particularly as the expansion proposed includes road network surface access developments to the road network and public transport.

Improved engines and emission standards have helped bring about the reductions in NO_x emissions seen in recent decades. The use of catalytic convertors aided the decline in emissions of non-methane volatile organic compounds (NMVOCs) and the reduction of sulphur in fuels has contributed to a decline in SO_2 emissions from the transport sector. However, despite tighter emissions standards a rise in diesel vehicle numbers has held back further improvements[85].

A ban on new petrol and diesel vehicle sales in the UK by 2030 is expected to further reduce NO_x and SO_2 emissions[86]. This will improve air quality, particularly across urban areas, and further the improvements to emissions reductions. Electric and hybrid vehicles are expected to become dominant (with the ban on hybrid vehicle sales in the UK by 2035), requiring provisions such as electric charging points to be made for these vehicles across Warwickshire.

Innovation of electric and hybrid technology has the potential to have a beneficial impact on carbon emissions. For example, bus fleets are commonly being upgraded to either electric or hybrid vehicles, and this trend is expected to continue. Progressively tighter vehicle emission and fuel standards agreed at European level and set in UK regulations also means emissions have the potential to reduce in future.

The UK Government's 2020 Ten Point Plan for a Green Industrial Revolution aims to introduce at least 4,000 more zero emissions buses, representing 12% of the local operator bus fleet in England[87]. Predictions for future vehicle NO_2 reductions are more reliant on the Real Driving Emissions (RDE) testing than a switch to electric vehicles in the short to medium term and as such, are reliant on enforcement and compliance with approval standards.

[84] Birmingham Airport (2018) Masterplan https://www.birminghamairport.co.uk/media/5538/birmingham-airport-master-plan-2018-webres.pdf (Accessed 15/07/2021)

[85] Department for Environment, Food and Rural Affairs (2018) The State of the Environment: Air Quality. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729820/State_of_the_environment_air_quality_report.pdf (Accessed 15/07/2021)

[86] HM Government (2020). Available online at: https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030 (Accessed: 15/07/2021)

[87] HM Government (2020) The Ten Point Plan for a Green Industrial Revolution. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf (Accessed 15/07/2021)

CLIMATE CHANGE AND GREENHOUSE GASES

SUMMARY OF CURRENT BASELINE

Climate change is caused by rising levels of carbon dioxide and other greenhouse gases, such as methane, in the atmosphere, which creates a 'greenhouse effect', trapping the sun's energy and causing the Earth to warm. Climate change is causing warming across the UK. During the most recent decade (2008-2017) the UK has been on average 0.8 °C warmer than the 1961-1990 average[88]. All ten of the warmest years in the UK have occurred since 1990 with the nine warmest occurring since 2002[88]. In the past few decades there has been an increase in annual average rainfall over the UK, for which the most recent decade (2009-2018) has been on average 5% wetter than 1961-1990 and 1% wetter than 1981-2010[89].

In 2019, an estimated 27% of national greenhouse gas emissions (GHGs) were from the transport sector, 21% from energy supply, 17% from business and 15% from the residential sector, with carbon dioxide (CO_2) being the most prominent gas from these sectors[90]. In 2018, transport accounted for 122.2 $MtCO_2e$ of GHG emissions, which represents a reduction of 2% compared with 2018 figures90.

In 2018, a total of 5,301.1kt CO_2 emissions were generated in Warwickshire[91]. Like the national trend, the greatest number of CO_2 emissions in Warwickshire came from the transport sector, making up 46% of the total emissions. The total CO_2 emissions in Warwickshire make up 1.8% of the total emissions in England.

During the same period, the average per capita emissions across Warwickshire is 9.3 tonnes of CO_2 emissions per person, which is significantly higher than the national average of 5.0 tonnes per person. Looking at the districts individually, Rugby has the highest level of emissions per capita at 17.5 tonnes (over half of this is from buildings[92]), whilst Nuneaton and Bedworth has the lowest at 4.0 tonnes91.

[88] GOV.UK (2019) Guidance: Climate change explained. Available online at: https://www.gov.uk/guidance/climate-change-explained (Accessed: 15/07/2021)

[89] Met Office (2019) UK Climate Projections: Headline Findings. Available online at: https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp-headline-findings-v2.pdf (Accessed 15/07/2021)

[90] Department for Business, Energy and Industrial Strategy (2021) 2019 UK Greenhouse Gas Emissions, Final Figures, Statistical Release: National Statistics. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957887/2019_Final_greenhouse_gas_emissions_statistical_release.pdf (Accessed on 15/07/2021)

[91] Department for Business, Energy and Industrial Strategy (2020) 2005 to 2018 UK Local and Regional CO2 Emissions, Data Tables. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894787/2005-18-uk-local-regional-co2-emissions.xlsx (Accessed on 15/07/2021)

[92] Rugby Borough Council (2012) Carbon Management Plan.

FUTURE TRENDS

Road traffic has increased 29% from 1990 to 2018 and road transport GHG emission by 6% from 1990 to 2017, contributing to around a fifth of UK greenhouse gas emissions in 2017. These trends are likely to continue as population increases. Reducing emissions from road transport will remain a significant challenge in the UK as a result.

The UK is committed to legally binding GHG emissions reduction targets of 80% by 2050, compared to 1990 levels, as set out in the Climate Change Act 2008[93]. The UK ratified the 2015 Paris Agreement, which set out a GHG emission reduction target of at least 40% by 2030, compared to 1990 with a long-term strategy for net zero emissions by 2050[94]. However, a more ambitious target was set by the UK in 2020 to reduce greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels[95]. This means changes to technology as well as ways in which people travel.

For example, ahead of 26th Conference of the Parties (COP26) Summit, the UK has brought forward its ban on the selling of new petrol, diesel or hybrid cars from 2040 to 2030. The last decade has seen a remarkable surge in demand for electric vehicles in the UK. The number of licensed ultra-low emission vehicles (ULEVs) in the UK has increased by 3,427% between the end of March 2010 to the end of June 2020, a jump from just under 9,000 ULEVs to 317,000 ULEVs[96].

The infrastructure to support the demand in electric vehicles has also continued to increase, and as a result of sustained UK Government and private investment, the UK network of charging points has increased from a few hundred in 2011 to more than 12,400 charging locations, 19,700 charging devices and 34,400 connectors by October 2020[97]. Other examples include changing travel modes and increasing planning for efficient and reliable public transport infrastructure.

WCC has declared a climate emergency, setting a target to become carbon neutral by 2030[98]. District and Borough councils are set to develop proposals for a carbon neutral action plan for Warwickshire.

By the end of the 21st century, all areas of the UK are projected to be warmer, more so in summer than in winter. This projected temperature rise in the UK is consistent with future warming globally.

---

[93] Climate Change Act 2008, [online], Available at: https://www.legislation.gov.uk/ukpga/2008/27/contents (Accessed 15/07/2021)

[94] Paris Agreement, Available online at: https://ec.europa.eu/clima/policies/international/negotiations/paris_en (Accessed 15/07/2021)

[95] Department for Business, Energy and Industrial Strategy, Press Release: UK Sets Ambitious New Climate Target Ahead of UN Summit, 2020, Available online at: https://www.gov.uk/government/news/uk-sets-ambitious-new-climate-target-ahead-of-un-summit (Accessed 15/07/2021)

[96] House of Commons, Briefing Paper: Electric Vehicles and Infrastructure, 2020 Available online at: file:///C:/Users/UKELL002/Downloads/CBP-7480.pdf (Accessed 15/07/201)

[97] Electric car market statistics, 2020. [online] Available at: https://www.nextgreencar.com/electric-cars/statistics/ (Accessed 04/03/2021)

[98] Warwickshire County Council (2019) WCC declares climate change emergency. Available online at: https://www.warwickshire.gov.uk/news/article/704/wcc-declares-climate-change-emergency-on-hottest-day-of-summer (Accessed 15/07/2021)

Rainfall patterns across the UK are not uniform and vary on seasonal and regional scales and will continue to vary in the future, with significant increases in hourly precipitation extremes89. Both temperature and rainfall the changes will be much larger if greenhouse gas emissions continue to increase.

Despite this, the current estimates for temperature increases and changes to rainfall patterns are unlikely to alter significantly in the near future, given the timescales associated with climate change. This being the case, there will be an increasing need to implement climate change mitigation and adaptation measures in light of changing environmental conditions.

SOILS, RESOURCES AND WASTE

SUMMARY OF CURRENT BASELINE

Soils across England are classified based on the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. Natural England Agricultural Land Classification (ALC)[99] grades soils 1 to 5, with grades 1-3a classified as the best and most versatile agricultural land (BMV).

According to Natural England's ALC58, much of the agricultural land in Warwickshire is rated 'good to moderate' (Grade 3a – 3b). Land increases in quality to 'very good' (Grade 2) following the same path as the River Avon between Royal Leamington Spa and Stratford-upon-Avon and the River Tame in North Warwickshire. There are some areas located around Kenilworth, Warwick, Whateley and Bubbenhall which are classified as Grade 1 - excellent quality agricultural land.

Sandstone, Mudstone, Siltstone Triassic Rocks and Lias group Mudstone, Siltstone, Limestone and Sandstone are the common bedrock geology in the county[100]. Sand, gravel and crushed rock are Warwickshire's most important and dominant aggregate minerals. In 2010, there were two active crushed rock sites and six operational sand and gravel extraction sites in Warwickshire, which fell to 3 by January 2013[101]. Sand and gravel production was 0.329 million tonnes (Mt) per annum in 2010, representing 31.5% of sand and gravel sales within the West Midlands and crushed rock extraction production was 0.6 million tonnes (Mt) per annum in 2010.

[99] Natural England, Guide to assessing development proposals on agricultural land, 2021. Available online at: https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land (Accessed: 13/10/2021)

[100] British Geological Society Maps. Available online at: http://mapapps2.bgs.ac.uk/geoindex/home.html?topic=Minerals (Accessed: 15/07/2021)

[101] Warwickshire County Council, Minerals & Waste Development Framework -Annual Monitoring Report 2011-2012. Available online at: https://api.warwickshire.gov.uk/documents/WCCC-680-211 (Accessed 15/07/2021)

Warwickshire has over 80 Local Geological Sites (LGS), with a large proportion of these located North of the county close to Atherstone, Nuneaton and Bedworth. In the south of the county LGS' are located along the edge of the county boundary[102].

The UK generated 222.9 million tonnes of total waste in 2016, with England responsible for 85% of the UK total[103]. Construction, demolition and excavation (CDE) waste makes up around 60% of the entire amount of waste produced by the UK each year, making this the country's largest waste stream. However, once hazardous waste and navigational dredging spoil is excluded, 76% of CDE waste is currently being recovered and recycled for alternative uses[104]. This exceeds the EU target[105] of 50%, which the UK must meet by 2020.

Defra's landfill capacity figures[106] show that Warwickshire's landfill capacity has been declining (12,730,629 cubic metre of capacity remaining at the end of 2019) and will continue to do so in the absence of future provision. However, the estimated total household waste collected by Warwickshire County Council was around 251,800 between 2018-2019, with 14.3% going to landfill[107], this is above the regional average of 7.2%[108]. This is still a relatively low figure attributed to the county's high Recycling, Composting and Reuse rate (51.7%) and the Energy from waste facilities[109], based in Staffordshire (Veolia) and Coventry (Coventry & Solihull Waste Disposal Company (CSWDC)), which turns collected household waste into energy used to heat local homes and businesses[110].

[102] WGCG, Warwickshire Local Geological Sites (LGS). Available online at: https://www.wgcg.co.uk/lgs/lgs-map/ (Accessed 16/07/2021)

[103] Defra. 2018. UK Statistics on Waste. [online] Available at: https://www.gov.uk/government/statistical-data-sets/env23-uk-waste-data-and-management (Accessed 16/07/2021)

[104] MRW (2019) CDE recycling levels. Available online from: https://www.mrw.co.uk/knowledge-centre/do-the-numbers-reflect-true-cde-recycling-levels/10040434.article (Accessed 16/07/2021)

[105] Waste Framework Directive 2018 target of 50% preparation for re-use / recycling for municipal waste (Accessed 16/07/2021)

[106] Defra (2019) Available online at: https://data.gov.uk/dataset/237825cb-dc10-4c53-8446-1bcd35614c12/remaining-landfill-capacity (Accessed: 16/07/2021)

[107] Warwickshire County Council (2019) Warwickshire Waste Partnership. Available online at: https://democracy.warwickshire.gov.uk/Data/Warwickshire%20Waste%20Partnership/201906121400/Agenda/JKWNZz2bpgoU2bjrJECYYlZsZKRy.pdf (Accessed:16/07/2021)

[108] Defra (2019) Statistics on waste managed by local authorities in England in 2018/19. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918853/201819_Stats_Notice_FINAL_accessible.pdf (Accessed: 16/07/2021)

[109] Warwickshire County Council, Where does my recycling go? Available online at: Where does my recycling go? – Warwickshire County Council (Accessed: 16/07/2021)

[110] CSWDC, District Heating Scheme. Available online at: https://www.cswdc.co.uk/ (Accessed 16/07/2021)

Warwickshire's renewable energy capacity has been ranked 41st out of 56 counties, with a total capacity of 157.7 MW produced by renewable energies. Solar energy and biomass for heat are Warwickshire's largest renewable energy sources at 61% and 15% respectively[111].

FUTURE TRENDS

Due to projected population trends, there will be a need for development (including transport infrastructure) to support this growth. This development is likely to increase pressure upon agricultural land, which could potentially result in the loss of some of the county's best and most versatile land.

Agricultural areas are also at risk from climate change. Projections of increased flooding and drought may lead to the loss of important agricultural areas, through compaction, waterlogging and erosion of soil.

The growing population and associated need for development are also likely to increase use of mineral resources and waste generation. As such, it will be necessary to apply resource efficiency and waste management measures, including the re-use and recycling of materials.

Renewable energies are likely to become more dominant, requiring further land for development and subsequent infrastructure. The projected population will increase the county's energy needs and renewables will be required to meet this demand. It will therefore be necessary to ensure these sites and infrastructure developments do not negatively impact the county's agricultural land.

NOISE AND VIBRATION

SUMMARY OF CURRENT BASELINE

Noise Important Areas (NIAs) are where the 1% of the population that are affected by the highest noise levels from major roads are located[112]. There are over 100 NIAs throughout Warwickshire, concentrated in and around the town and city centres and along major roads and railways, generally in the north of the county (see **Figure B-10** in **Appendix B**).

Data from the England Noise Viewer[113], shows that motorways and A roads namely, M6, M40, M42, M69, A5, A45, A46, A429, A435 and railways around Nuneaton, Rugby and Royal Leamington Spa and Grantham create significant noise with noise levels exceeding 55dB in areas within 1km of the source (Lden, 24-hour annual average noise levels with weightings applied for the evening and night

[111] Green Alliance (2016) Renewable Energy Locator. Available online at: https://renewablelocator.green-alliance.org.uk/area/295 (Accessed: 15/07/2021)

[112] Department for Environment, Food and Rural Affairs, Noise Action Plan: Roads, 2019, [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813666/noise-action-plan-2019-roads.pdf (Accessed 15/07/2021)

[113] Extrium, England Noise and Air Quality Viewer [online] Available at: http://extrium.co.uk/noiseviewer.html (Accessed 15/07/2021)

periods). Areas affected are exacerbated along where major roads merge and in locations where roads and railways cross.

FUTURE TRENDS

Given the projections for an increasing population, and the current preference for cars as the main mode of transport, there is potential that noise levels will increase along major roads. Innovations such as hybrid and electric vehicles have led to quieter vehicles and this trend is expected to continue with greater uptake.

Future trends in noise targets are expected to focus on more stringent criteria, where the link between health effects and noise begins to be better understood. Additionally, future climate change is expected to result in an increase in ambient temperatures and for longer periods, creating a need to seek thermal relief, which, generally, with the existing housing stock, tends to be satisfied by opening of windows, thus increasing exposure to noise.

Appendix E

REVIEW OF PLANS, POLICIES AND STRATEGIES

This appendix presents the findings of the review of legislation, policies and plans including relevant international, national and regional documents undertaken as a part of the evidence gathering exercise for the Warwickshire Sustainability Appraisal Scoping Report. Details of relevant legislation, policies and plans per topic are provided in **Table E-1**.

Table E-1 - Legislation, policies and plans

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
Population and Equalities	**National**	
	The Equality Act 2010 legally protects people from discrimination in the workplace and in wider society. It is against the law to discriminate against anyone because of: ▪ Age; ▪ Being or becoming a transsexual person; ▪ Being married or in a civil partnership; ▪ Being pregnant or having a child; ▪ Disability; ▪ Race including colour, nationality, ethnic or national origin; ▪ Religion, belief or lack of religion/belief; ▪ Sex; and ▪ Sexual orientation.	Equality Act, 2010
	When delivering new schemes, applicants must avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the UK Government's planning guidance. Applicants should provide evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes.	National Planning Policy Framework (NPPF), 2021
	Deliver better public services through involving and consulting users more fully, providing better information about local standards and managing services at neighbourhood level.	Strong and Prosperous Communities: The Local Government White Paper, 2006
	The Action Plan sets what the UK Government is doing to ensure people from all communities in society have the option to use public transport.	Department for Transport, Transport for Everyone: an action plan to promote equality, 2012

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The main aim of the report is to *'deliver better access to jobs and key services through an accessible and socially inclusive transport system, by removing the barriers to travel and ensuring that social impacts are addressed in policy development and service delivery'*.	
	As the number of older adults increases substantially in the UK over the next six decades, the existing urban and rural infrastructure will need to be adapted so that the needs of these people are met. For example, issues of access, transport, amenity and security will substantially affect the wellbeing of older people.	Foresight Mental Capital and Wellbeing Project (2008). Final Project report. The Government Office for Science
	Transport is a key factor shaping experiences of poverty. The ability of households in poverty to find paid work often depends on access to affordable, regular and reliable transport. Residents of low-income neighbourhoods generally have a significant reliance on bus services. This can create issues regarding variable frequency, timing, reliability and range of places served. There is considerable evidence that transport issues affect different groups to varying extents and in particular ways, especially in terms of gender. A distinguishing feature of low-income neighbourhoods is the relatively low incidence of motor vehicle ownership. This means that residents have a much higher reliance on public transport than those living in middle and high-income areas Difficulties in meeting the costs of transport from current incomes have given rise to the concept of 'transport poverty'.	Addressing Transport Barriers to work in Low Income Neighbourhoods, Sheffield Hallam University, 2017
	The Marmot Review identified that the levels of social, environmental and economic inequality in society are damaging health and well-being. This report identifies that as the UK emerges from the pandemic it would be a mistake to attempt to re-establish the status quo that existed before the pandemic. The reductions in car traffic during the pandemic resulted in cleaner air and reduction in emission of greenhouse gases. Walking and cycling as modes of transport became both necessary and desirable. As the pandemic is brought under control and public transport again becomes safe, a future for our cities based on reduction in vehicle traffic and made safe for walking and cycling in addition to public transport is a future we can both imagine and realise.	Build Back Fairer: The Covid-19 Marmot Review, 2020

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Building Back Fairer requires a sizeable reduction in private car use and greater active travel and use of public transport. Efforts to support this are required urgently and would help to reduce Greenhouse Gas Emissions and lead to a more sustainable environment.	
	Although the initial strategy is based in London, the approach is becoming more widely adopted nationally. The Healthy Streets Approach puts people and their health at the centre of decisions about how we design, manage and use public spaces. It aims to make our streets healthy, safe and welcoming for everyone. The Approach is based on 10 Indicators of a Healthy Street which focus on the experience of people using streets. These are as follows: ▪ Pedestrians from all walks of life; ▪ Easy to cross; ▪ People chose to walk, cycle and use public transport; ▪ Clean air; ▪ People feel safe; ▪ Not too noisy; ▪ Places to stop and rest; ▪ Shade and shelter; ▪ People feel relaxed; and ▪ Things to see and do.	TfL, Healthy Streets for London, 2017
	Regional/Local	
	A key objective of the plan is to *"make sure new developments are built to a high standard in terms of design, and provide inclusive, lively and attractive places where people feel safe and want to live, work or visit"* and *"ensure the district has the right amount, quality and mix of housing to meet future needs"* including: a. affordable homes; b. a mix of homes to meet identified needs including homes that are suitable for elderly and vulnerable people; and c. sites for gypsies and travellers.	Warwick District, Local Plan, 2011-2029

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The vision for the rights of way and recreational highway network in Warwickshire is: '*To ensure that the public gain maximum use and enjoyment of the network, whilst protecting and improving it for future generations of residents and visitors'.* The overall objectives in implementing the Strategy are to achieve: • A well-managed and maintained asset. • A sustainable network which meets the needs of modern users. • A network which is accessible to, and used by, a wide variety of people from different backgrounds and with differing abilities. • Responsible users who respect the countryside as a working environment and as an investment for the future. • A better rights of way network for all.	Warwickshire County Council, Rights of Way and Recreational Highway Strategy 2011-2026
	A key objective of the Plan is to *"create healthy, safe and strong communities by creating and improving networks that increase opportunities to walk and cycle to a range of facilities, enabling access to a range of high quality open spaces, enabling participation in active sport by building on the strengths of the borough's leisure centres and other local facilities, reducing crime and antisocial behaviour through a multi-faceted approach, using actions such as good design, raising aspirations and providing opportunities for the young alongside the necessary infrastructure provision and creating well planned and integrated communities that foster cohesion and accessibility for all."*	Nuneaton and Bedworth Borough Council, Borough Plan, 2011-2031
	There are four key strategic objectives related to population and equalities: Objective 2: To provide for the housing needs of the Borough ensuring *"there will be a sufficient supply and appropriate size, mix and tenure of housing to meet the identified requirements of residents"* Objective 5: To promote rural diversification by *"supporting investment that maintains and extends services and facilities that directly benefit rural needs and maintains and enhances the environment"* Objective 6: To deliver high quality developments based on sustainable and inclusive designs. In order to "*promote well-being, social inclusion and community cohesion, in addition to both economic and environmental benefits"*	North Warwickshire Local Plan - Core Strategy, 2014

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Objetcive 8: To establish and maintain a network of accessible good quality Green Infrastructure, open spaces, sports and recreational facilities, to *"promote well-being, social inclusion and community cohesion, in addition to both economic and environmental benefits"*	
	Two key parts of the vision are to: Make rugby "*a place where the community has worked together to create a Borough where people are proud to live, work and visit"; and* Ensure all residents *"have the opportunity to live in decent homes that they can afford through the provision of a variety of housing that meets the needs of all sectors of the community";*	Rugby Borough Council Local Plan, 2011- 2031
Economy	**National**	
	The Act allows the modification or discharge of the affordable housing elements of section 106 agreements in order to make developments more viable. Contains measures to extend permitted development rights to allow single-storey extensions of up to eight metres. Reduces the volume of extra paperwork required with a planning application; removing over-lapping development consent regimes that require multiple extra permissions from different Government agencies.	Growth and Infrastructure Act (2013)
	To determine the minimum number of homes needed, strategic policies should be informed by a local housing need assessment. In addition to the local housing need figure, any needs that cannot be met within neighbouring areas should also be taken into account in establishing the amount of housing to be planned for. Within this context, the size, type and tenure of housing needed for different groups in the community should be assessed and reflected in planning policies, including, but not limited to: ▪ Those who require affordable housing; ▪ Families with children; ▪ Older people; ▪ Students; ▪ People with disabilities; ▪ Service families; ▪ Travellers; ▪ People who rent their homes; and	National Planning Policy Framework, 2019

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	▪ People wishing to commission or build their own homes.	
	Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future.	National Planning Policy Framework (NPPF), 2021
	The Enterprise Act includes measures to: Establish a Small Business Commissioner to help small firms resolve issues. Extend the Primary Authority scheme to make it easier for businesses to access tailored and assured advice from local authorities, giving them greater confidence to invest and grow. Protect and strengthen apprenticeships by introducing targets for apprenticeships in public sector bodies in England, and establish an Institute for Apprenticeships – an independent, employer-led body that will make sure apprenticeships meet the needs of business.	The Enterprise Act (2016)
	The Industrial Strategy sets out a long term plan to boost the productivity and earning power of people throughout the UK. It sets out how the UK Government is working towards building a Britain fit for the future – how they will help businesses create better, higher-paying jobs in every part of the UK with investment in the skills, industries and infrastructure of the future. The strategy includes five foundations: ▪ Ideas: the world's most innovative economy ▪ People: good jobs and greater earning power for all ▪ Infrastructure: a major upgrade to the UK's infrastructure ▪ Business environment: the best place to start and grow a business ▪ Places: prosperous communities across the UK The UK Government will use this strategy to work with industry, academia and civil society over the coming years to build on the UK's strengths, make more of untapped potential and create a more productive economy that works for everyone across the UK.	UK Industrial Growth Strategy, 2017
	This Strategy sets out a comprehensive set of policies and proposals that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions. The Strategy has two guiding objectives:	The Clean Growth Strategy, 2017

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	1. To meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers and businesses; and, 2. To maximise the social and economic benefits for the UK from this transition. In order to meet these objectives, the UK will need to nurture low carbon technologies, processes and systems that are as cheap as possible.	
	Regional/ Local	
	Warwickshire and Coventry is a *"global hub in the advanced manufacturing and engineering sector, with business and research links across the world. Building on its central location, employment sites, distinctive businesses, innovation and cultural assets and highly talented workforce, by 2025 Coventry & Warwickshire will be a high performing economy with innovative businesses competing internationally, growing and providing better paid employment opportunities for all of our residents across both rural and urban areas".* There are five pillars of activity: ▪ Unlocking our growth potential ▪ Advanced manufacturing and engineering ▪ Growing our SMEs ▪ Growing our Talent ▪ Culture and Tourism These are reflected by the objectives: ▪ Improve Coventry & Warwickshire's economic competitiveness. ▪ Address the existing productivity gap between the CWLEP area and the UK average. ▪ Ensure strong road, rail and broadband connectivity across the full CWLEP area. ▪ Become a global centre for R&D in Advanced Manufacturing and Engineering. ▪ Create a supportive environment within which businesses can grow and prosper. ▪ Invest in employment and skills provision to meet evolving demands of employers, providing a world-class apprenticeship offer. ▪ Grow the creative and cultural industries with Coventry becoming UK Capital of Culture 2021.	Coventry and Warwickshire Updated Strategic Economic Plan, 2016

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The Plan contains two key objectives related to the economy which are to be achieved by 2031: ▪ The value of tourism to the District will have increased substantially, initially by 25% during the period 2011-2015, through the District Council working with its private sector partners, including Shakespeare's England. Stratford-upon-Avon will have re-established its position in the top 20 UK towns and cities for international visitors. ▪ A sustainable balance between employment growth and housing provision will be maintained as a result of the implementation of at least 35 hectares of additional land for general business uses, thereby helping to meet the needs of new and existing businesses wishing to locate or expand in the District.	Stratford-on-Avon District Core Strategy, 2011-2031
	The plan contains three objectives for a *"thriving economy"* Objective 1: To use economically driven growth in a way that will help regenerate the borough and raise its profile as a more attractive place to live, but particularly to work and invest in. Objective 2: To seek employment opportunities that will support the diversification of the borough's economy and improve job opportunities for residents. Objective 3: To continue to develop and diversify Nuneaton and Bedworth town centres so they each have a distinctive and individual role in serving the borough which is supported by lower order centres in a retail hierarchy.	Nuneaton and Bedworth Borough Council, Borough Plan, 2011-2031
	A key part of the vision is "*employment generation*" this *"will benefit local residents and ensure long lasting benefits to the Borough, including improved skills, reducing out commuting and regeneration of industrial estates where appropriate".*	North Warwickshire Local Plan, Core Strategy, 2014
	A key part of the vision is to create a strong economy and *"provide a range of high-quality employment opportunities suitable for the whole community which will in turn be supported through excellent links to local schools, Warwickshire College and local universities"* There are three spatial Objectives related to the economy to ensure this vision: Objective 4: To ensure the Borough has an expanding and diverse economy where manufacturing and engineering remains strong, the service sector grows and there is not over reliance on logistics, transport and distribution.	Rugby Borough Council Local Plan, 2011-2031

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Objective 5: Ensure that all businesses, whether large or small, can locate and operate in Rugby through the provision of a varied portfolio of employment land that offers space for companies to commence trading and then stay within the Borough as they grow. Objective 6: To enhance the vitality of Rugby Town Centre, ensuring it has a complementary role to the out of town retail parks, providing a distinctive offer to both residents and visitors	
	There are two key strategic objectives relating to the economy: Objective 1: Provide a sustainable level of economic growth (and balance this with housing growth) to maintain high levels of employment, and to deal with pockets of unemployment in deprived areas Objective 2: Provide a sustainable level of retail and leisure growth that will meet people's existing and future needs, and maintain and improve the vitality and viability of existing town and local centres as attractive and safe places to visit both by day and night.	Warwick District Local Plan 2011-2029
Health and Wellbeing	**National**	
	Reducing health inequalities is a matter of fairness and social justice. In England, the many people who are currently dying prematurely each year as a result of health inequalities would otherwise have enjoyed, in total, between 1.3 and 2.5 million extra years of life. Ensure a healthy standard of living for all; Create and develop healthy and sustainable places and communities; and Strengthen the role and impact of ill health prevention.	Fair Society, Healthy Lives: The Marmot Review: Strategic review of health inequalities in England post, 2012
	The Marmot Review identified that the levels of social, environmental and economic inequality in society are damaging health and well-being. This report identifies that as the UK emerges from the pandemic it would be a mistake to attempt to re-establish the status quo that existed before the pandemic. The reductions in car traffic during the pandemic resulted in cleaner air and reduction in emission of greenhouse gases. Walking and cycling as modes of transport became both necessary and desirable. As the pandemic is brought under control and public transport again becomes safe, a future for our cities based on reduction in vehicle traffic and made safe for walking and cycling in addition to public transport is a future we can both imagine and realise.	Build Back Fairer: The Covid-19 Marmot Review, 2020

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Building Back Fairer requires a sizeable reduction in private car use and greater active travel and use of public transport. Efforts to support this are required urgently and would help to reduce Greenhouse Gas Emissions and lead to a more sustainable environment.	
	Paragraph 92 of the NPPF states: Planning policies and decisions should aim to achieve healthy, inclusive and safe places which: a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages; b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of attractive, well-designed, clear and legible pedestrian and cycle routes, and high quality public space, which encourage the active and continual use of public areas; and c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.	National Planning Policy Framework (NPPF), 2021
	Poorly located and designed new development seriously hinders healthy lifestyles. Physical inactivity directly contributes to one in six deaths in the UK, drives rising levels of obesity, and is the fourth largest cause of disease and disability. It costs society an estimated £7.4 billion a year and places the national healthcare system under increasing financial strain. By enabling compact, higher density, and mixed-use patterns of development. This encourages more people to incorporate physical activity into their daily journeys, improving productivity and dramatically reducing ill health.	Chartered Institution of Highways & Transportation (CIHT), Better planning, better transport, better places, 2019
	There are three main mechanisms that link transport and health and wellbeing: ▪ Transport and access: Transport plays a key role in improving access to health services, particularly for vulnerable groups like older people. ▪ Mode of transport: Mode of transport affects physical and mental health, via mechanisms including physical activity and commuting time.	Transport, health, and wellbeing: An evidence review for the Department for Transport, 2019

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	▪ Wider effects of transport and infrastructure: Transport can facilitate social interactions and promote social inclusion.	
	Regular physical activity provides a range of physical and mental health and social benefits, including: ▪ Reducing the risk of many long-term conditions ▪ Helping manage existing conditions ▪ Ensuring good musculoskeletal health ▪ Developing and maintaining physical and mental function and independence ▪ Supporting social inclusion ▪ Helping maintain a healthy weight ▪ Reducing inequalities for people with long-term conditions The CMOs' Physical Activity Guidelines state that for good physical and mental health, adults should aim to be physically active every day. Any activity is better than none, and more is better still. Regular physical activity can help to prevent and manage a range of chronic conditions and diseases, many of which are on the rise and affecting people at an earlier age.	Public Health England, Health Matters, Physical Activity: Prevention and management of long-term conditions
	Regional/ Local	
	The strategy is "Warwickshire's high-level plan for improving health and wellbeing and reducing differences, or inequalities, in health within Warwickshire". There are three long term strategic ambitions set out in the strategy: ▪ Healthy people; ▪ Strong communities; and ▪ Effective services. The Strategy identified three priority areas to focus on over the next two years in order to deliver on these ambitions: ▪ Help our children and young people have the best start in life ▪ Help people improve their mental health and wellbeing, particularly around prevention and early intervention in our communities ▪ Reduce inequalities in health outcomes and the wider determinants of health	Warwickshire Health and Wellbeing Strategy, 2021-2026

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The vision of the Plan is to *"work together to deliver high quality care which supports our communities to live well, stay independent and enjoy life."* The STP responds to key areas of focus to: ▪ Strengthen and invest in primary care ▪ Deliver A&E and ambulance standards, simplify the U&EC system making it more accessible. ▪ Improve mental health and cancer services, and for people with learning disabilities. ▪ Prevent illness, empower people to look after their own health and prevent avoidable hospital stays. ▪ Improve the quality of hospital services, including maternity services, and deliver the RTT access standard. ▪ Create a financially sustainable health system for the future	Coventry and Warwickshire Sustainability and Transformation Plan, 2016
	A key objective of the Plan is to *"create healthy, safe and strong communities by creating and improving networks that increase opportunities to walk and cycle to a range of facilities, enabling access to a range of high quality open spaces, enabling participation in active sport by building on the strengths of the borough's leisure centres and other local facilities, reducing crime and antisocial behaviour through a multi-faceted approach, using actions such as good design, raising aspirations and providing opportunities for the young alongside the necessary infrastructure provision and creating well planned and integrated communities that foster cohesion and accessibility for all."*	Nuneaton and Bedworth Borough Council, Borough Plan, 2011-2031
	A key objective of the Plan is to *"ensure all residents of the Borough have a decent and affordable home with particular focus on affordable provision in the rural areas and specialised housing types for the older population."*	Rugby Borough Council Local Plan, 2011-2031
	There are 5 key strategic objectives related to health and wellbeing: Objective 4: Make sure that new developments are in places that will reduce the need for people to use their cars. This will minimise air pollution, help address climate change by reducing road congestion and carbon emissions, and encourage people to live more healthy lifestyles by facilitating walking and cycling. Objective 8: Make sure new developments provide public and private open spaces where there is a choice of areas of shade, shelter, recreation and access to sports facilities that will benefit people and wildlife and provide flood storage and carbon management.	Warwick District Local Plan, 2011-2029

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Objective 10: Enable improvements to infrastructure, such as schools and healthcare provision, to make available and maintain facilities and services people need in locations they can get to. Objective 13: Enable improvements to be made to the built and natural environments that will help to maintain and improve historic assets, improve habitats and their connectivity, help the public to access and enjoy open spaces such as parks and allotments and support healthy lifestyles. Reduce the risk of flooding by only approving development that minimises the effects of climate change (including on habitats and wildlife). Objective 14: Enable the maintenance of and qualitative improvements to sporting and leisure facilities, including enhancing opportunities for culture and tourism. This will include sustaining a flexible supply of land and buildings for sport and recreation of the right quality and in the right location, which can meet people's current and future needs and support healthy lifestyles.	
	The main vision for accessibility is for: *"An accessible Warwickshire, Coventry and Solihull landscape where residents, workers and visitors can responsibly enjoy the natural world, be it in an urban or rural setting"*	Warwickshire, Coventry & Solihull Sub-Regional Green Infrastructure Strategy, 2013
Community Safety	**National**	
	Paragraph 185 of the NPPF states that any significant impacts from developments on the transport network (in terms of capacity and congestion), or on highway safety, should be cost effectively mitigated to an acceptable degree.	National Planning Policy Framework (NPPF), 2021
	Paragraphs 3.10 – 3.12 of the NN NPS advise that "scheme promoters are expected to take opportunities to improve road safety, including introducing the most modern and effective safety measures where proportionate", and that it is the UK Government's policy to ensure that risks of rail passenger and workforce accidents are reduced so far as reasonably practicable.	National Networks National Policy Statement (NN NPS) (2014)
	Safety is an important consideration for road users owing to the significant impact of serious and fatal accidents. A considerable economic cost is also associated with collisions on all roads, estimated at £15 billion annually to the UK economy.	Department for Transport, Road Investment Strategy: for the 2015/16 – 2019/20 Road Period, 2015

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	While driverless technology still has to mature, it clearly has the potential to transform the UK's transport networks – improving safety, reducing congestion, and lowering emissions. Safety and the environment suffering as congested traffic is more polluting and there is an increased risk of accidents. The Strategic Road Network and local networks should work together to provide flexibility and door-to door connectivity for all users. Schemes such as the A453 upgrade highlighted below do just this, and we have also set aside funding in the ring-fenced Cycling, Safety, and Integration Fund to further support connectivity with local networks.	
	Whilst the number of people Killed or Seriously Injured (KSI) on UK roads has generally been declining since 2005, over the last few years the number of fatalities has remained fairly consistent with a small increase in KSIs in 2013. Highways England recognise that they must continue to improve safety by investing in the road network, both to prevent incidents from occurring and to reduce the severity of those that do. By end of 2020, they aim to have reached a target of no more than 1,393 KSIs across the network in a year. This will be achieved by a year on year reduction in those harmed across the network.	Highways England Delivery Plan 2015-2020, 2015
	The Government's Tackling Violence Against Women and Girls Strategy follows the Government's previous 2010, 2016 and 2019 Strategies which sets out the Government's approach to tackling crimes which disproportionately affect women and girls. Key additional actions the Government will take forward to help make sure organisations and individuals work together effectively to tackle violence against women and girls include: ▪ The Home Office will work with the police to introduce a National Policing Lead for Tackling Violence Against Women and Girls. ▪ To help ensure women and girls are safe on our public transport, the Department for Transport will appoint a new Violence Against Women and Girls Transport Champion; and ▪ To make sure that we are continuing to build understanding of these crimes, who they happen to, and who commits them, we will work across Government to improve data, and in turn improve understanding, of these crimes.	HM Government Tackling Violence Against Women and Girls, 2021
	Local/ Regional	

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The South Warwickshire Community Safety Partnership has a vision to be *"an attractive and desirable place to live, work and visit, with a sense of safety which reflects the low risk of becoming a victim of crime in the area".* The SWCSP has four key priorities including: ▪ Violent crime ▪ ASB ▪ Reducing Re-offending ▪ Alcohol and Drugs	South Warwickshire Community Safety Partnership (Safer South Warwickshire), Partnership Plan, 2014-2017
	The Community Safety Agreement has the vision of *"working together to prevent harm and protect the most vulnerable.* ▪ It aims to put victims and survivors first ▪ Protect people from harm ▪ Prevent and reduce harm The key priorities for the Safer Warwickshire Partnership Board for 2017-2021 include: ▪ Violence and abuse ▪ Substance misuse ▪ Anti-social behaviour ▪ Hate crime and radicalisation ▪ Road safety ▪ Acquisitive crime ▪ Reducing re-offending ▪ Organised crime groups ▪ Cyber crime	Warwickshire Community Safety Agreement, 2017-2021
	There is one key strategic objective related to community safety: Objective 6: To create healthy, safe and strong communities by reducing crime and antisocial behaviour through a multi-faceted approach, using actions such as good design, raising aspirations and providing opportunities for the young alongside the necessary infrastructure provision.	Nuneaton and Bedworth Borough Council, Borough Plan, 2011-2031

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	To deliver the vision of the Plan, *"to make Warwick District a Great Place to Live, Work and Visit"* a key priority is safer communities.	Warwick District Local Plan, 2011-2029
Biodiversity, Natural Capital and Ecosystem Services	**International**	
	The convention has three main aims which are stated in Article 1: ▪ To conserve wild flora and fauna and their natural habitats; ▪ To promote cooperation between states; and ▪ To give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species.	Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
	The identification of a European network of Sites of Community Importance (SCIs) to be designated as Special Areas of Conservation (SACs). A SA would need to report on any potential effects on SACs and all development plans should aim to avoid adverse effects on them.	Conservation of Natural Habitats and Wild Fauna & Flora (the 'Habitats Directive') (1992)
	Aimed at halting the loss of biodiversity and ecosystem services in the EU by 2020, the strategy provides a framework for action over the next decade and covers the following key areas: ▪ Conserving and restoring nature; ▪ Maintaining and enhancing ecosystems and their services; ▪ Ensuring the sustainability of agriculture, forestry and fisheries; ▪ Combating invasive alien species; and ▪ Addressing the global biodiversity crisis.	EU (2011) EU Biodiversity Strategy to 2020 – towards implementation
	The 7th EAP guided EU environmental policy up to 2020 and set ambitions for 2050. The Programme set the following as a priority objective: "to protect, conserve and enhance the Union's natural capital." The 7th EAP reflects the EU's commitment to the preservation of biodiversity and the ecosystem services it provides for both its intrinsic value and its contribution to economic well-being. The Programme highlights that integrating the value of ecosystem services into accounting and reporting across the Union and its member states by 2020 will result in the better management of natural capital.	EU (2013) 7th Environment Action Programme (EAP) to 2020

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	This plan provides an overarching framework on biodiversity, for all biodiversity-related conventions, the entire United Nations system and all other partners engaged in biodiversity management and policy development. The plan consists of five strategic goals of which 20 further Aichi goals which include: ▪ Strategic Goal A: Address the underlying causes of biodiversity ▪ loss by mainstreaming biodiversity across Government and society. ▪ Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use. ▪ Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. ▪ Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services. ▪ Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building.	The Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020
	The Ramsar Convention covers all aspects of wetland conservation. It has three main pillars of activities: ▪ The designation of wetlands of international importance as Ramsar sites; ▪ The promotion of the wise use of all wetlands in the territory of each country; and ▪ International co-operation with other countries to further the wise use of wetlands and their resources. ▪ While the initial emphasis was on selecting sites of importance to waterbirds, now non-bird features are increasingly taken into account, both in the selection of new sites and when reviewing existing sites.	Ramsar Convention on the Conservation on Wetlands of International Importance (1971)
	National	
	The 25 Year Environment Plan outlines the UK Government's ambition To leave our environment in a better state than we found it and the steps proposed to take to achieve that ambition. The Plan includes ten key targets of which two focus on biodiversity. <u>Thriving plants and wildlife:</u> Restoring 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term; Creating or restoring 500,000 hectares of wildlife-rich habitat outside the protected site network, focusing on priority habitats as part of a wider set of land management changes providing extensive benefits;	25 Year Environment Plan, HM Government (2018)

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Taking action to recover threatened, iconic or economically important species of animals, plants and fungi and where possible to prevent human-induced extinction or loss of known threatened species in England and the Overseas Territories; Increasing woodland in England in line with our aspiration of 12% cover by 2060: this would involve planting 180,000 hectares by end of 2042. <u>Enhancing biosecurity:</u> Managing and reducing the impact of existing plant and animal diseases; lowering the risk of new ones and tackling invasive non-native species; Reaching the detailed goals to be set out in the Tree Health Resilience Plan of 2018; Ensuring strong biosecurity protection at our borders, drawing on the opportunities leaving the EU provides; and Working with industry to reduce the impact of endemic disease.	
	The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version). The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) and the protection of wildlife.	Wildlife and Countryside Act (as amended 1981)
	The Biodiversity Strategy for England sets a fundamental shift in train by ensuring that biodiversity considerations become embedded in all the main sectors of economic activity, public and private. The Strategy capitalises on the opportunities presented by the report of the Policy Commission on Food and Farming and the current review of the Common Agricultural Policy. The Strategy sets out a programme for five years for the other main policy sectors, to make the changes necessary to conserve, enhance and work with the grain of nature and ecosystems rather than against them. It takes account of climate change as one of the most important factors affecting biodiversity and influencing policies.	Working with the grain of nature: A Biodiversity Strategy for England 2002

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The aim of the White Paper is to set out a clear framework for protecting and enhancing the things that nature gives us for free. Four core themes: 1. Protecting and improving our natural environment 2. Growing a green economy 3. Reconnecting people and nature 4. International and EU leadership	The Natural Environment White Paper (2011)
	Species and habitats should be restored and enhanced in comparison with 2000 levels. Improve the long term sustainability of ecological and physical processes that underpin the functioning of ecosystems, thereby enhancing the capacity of ecosystem services. Provide accessible natural environments rich in wildlife for people to enjoy and experience.	Making Space for Nature: A review of England's Wildlife Sites and Ecological Network: Chaired by Professor Sir John Lawton CBE FRS (2010)
	Protect and enhance biodiversity through Nature Improvement Areas (NIAs), biodiversity offsetting, Local Nature Partnerships and phasing out peat use. Place natural capital at the centre of economic decision making to avoid the unintended environmental consequences that arise from undervaluing natural assets.	The Natural Choice: Securing the value of nature; HM Government (2011)
	NN NPS states that development should avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives. The applicant may also wish to make use of biodiversity offsetting in devising compensation to counteract impacts on biodiversity which cannot be avoided or mitigated. Where significant harm cannot be avoided or mitigated, as a last resort, appropriate compensation measures should be sought. Paragraphs 3.2 to 3.5 of the NN NPS state that not only should national road and rail networks be designed to minimise social and environmental impacts, but that they should also seek to improve quality of life. In part this may be achieved by "reconnecting habitats and ecosystems […] improving water quality and reducing flood risk, […] and addressing areas of poor air quality."	National Networks National Policy Statement (NN NPS) (2014)

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Paragraph 5.162 recognises the potential for developments to provide positive environmental and economic benefits through the provision of green infrastructure. Paragraph 5.175 of the NN NPS highlights that green infrastructure identified in development plans should be protected and, where possible, enhanced.	
	Paragraphs 174 and 179 to 182 of the NPPF require development to protect and safeguard biodiversity, and advise that development should aim to conserve, restore and enhance biodiversity adequately through mitigation or, as a last resort, using compensation. Proposals which aim to conserve or enhance biodiversity should be supported. Recognise the wider benefits of ecosystem services; minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the UK Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures. Paragraph 174 of the NPPF requires that planning decisions should be taken to enhance the natural environment by recognising the wider benefits from natural capital and ecosystem services. Further, Paragraph 175 requires plans to take a strategic approach to maintaining and enhancing green infrastructure networks and improving natural capital at a catchment or landscape scale.	National Planning Policy Framework (NPPF), 2021
	The report identifies that: ▪ Some assets are currently not being used sustainably and the benefits that we derive from them are at risk; ▪ There are major economic benefits to be gained from natural capital and that their value should be incorporated into decision making; and ▪ A long-term restoration plan is necessary to maintain and improve natural capital for future generations.	The State of Natural Capital: Restoring our Natural Assets; Natural Capital Committee (2014)
	In the report, the Natural Capital Committee sets out: ▪ Despite some improvements, only limited progress has been made towards the 25 Year Environment Plan's goals. ▪ Its advice to Government that biodiversity net gain should be expanded to environmental net gain. ▪ Its advice that an England wide baseline of natural capital assets should be established to measure progress towards environmental goals.	The State of Natural Capital; Natural Capital Committee (2020)

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	▪ Natural capital should be seen as infrastructure in its own right, in recognition of its contribution to economic wellbeing.	
	Regional / Local	
	The vision of the Warwickshire, Coventry and Solihull Local Nature Partnership is: ▪ The natural and historic environment will be in a vibrant and healthy condition such that the economy, people and local communities derive significant benefits from the full range of goods and services that it provides and sustains. ▪ Key decision-makers and influencers will engage in and champion the need to actively integrate enhancement of the natural environment with economic growth. ▪ The loss of biodiversity in Warwickshire, Coventry and Solihull will have been halted and reversed. Key habitats will have been restored, enhanced and connected at a landscape scale. ▪ Local people will value and feel connected to their local environment.	Warwickshire Coventry and Solihull Local Nature Partnership, 2012
	The main vision for biodiversity is for: *"A Warwickshire, Coventry and Solihull where wildlife thrives alongside humans within a resilient landscape; where land and buildings are managed positively for biodiversity, and where biodiversity enhancements are embedded into development, contributing to the extension and joining up of existing biodiversity assets"*	Warwickshire, Coventry & Solihull Sub-Regional Green Infrastructure Strategy, 2013
	The Progress Report highlights a number of key successes: • Target of increasing the extent of woodland cover by 1000ha by 2026 has been exceeded with the creation of at least 1500ha of new woodland; • Target of restoring degraded parkland by 2026 has been almost doubled with 194ha in active management including tree planting; • The extent of the habitat has been increased with the planting of 35, mostly small, orchards of locally traditional fruit varieties, including community and school orchards; • Dormice have become established at three woodlands after introductions in 2009, 2017 and 2018 Key areas identified for action are:	Warwickshire, Coventry and Solihull Local Biodiversity Action Plan Progress Report, 2019

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	• Woodland: bring unmanaged woodlands into management; retain old dead and decaying trees at more wet woodland sites targeting threatened bird species e.g. Willow tit, lesser spotted woodpecker. • Parks and Public Open Spaces: implement monitoring of the many newly established wildlife rich areas. • Traditional Orchards: encourage the planting of more orchards, however small, to achieve our 2026 target of 40ha,using locally traditional fruit varieties and appropriate grass mix. • Old Parkland and Veteran Trees: encourage landowners of our remaining old parkland to carry out restoration.	
	There are two strategic objectives related to biodiversity, Natural Capital and Ecosystem Services: ▪ Objective 7: To protect and enhance the quality of the natural environment and conserve and enhance the historic environment across the Borough. ▪ Objective 8: To establish and maintain a network of accessible good quality Green Infrastructure, open spaces, sports and recreational facilities.	North Warwickshire Local Plan, Core Strategy, 2014
	A key strategic objective related to Biodiversity, Natural Capital and Ecosystem Services is Objective 8: *"Protect natural species present in the Borough by improving habitats through the enhancement of a green infrastructure network that supports natural and ecological processes."*	Rugby Borough Council, Local Plan, 2011-2031
	This report presents nine action plan workstreams associated with the WCS LBAP in the context of the progress using case studies. This provides a base on which to build any future LBAP strategies.	Warwickshire, Coventry & Solihull Local Biodiversity Action Plan, Interim Progress Report, 2011-2019
Landscape and Townscape	**National**	
	English Nature (now Natural England) recommends that provision should be made of at least 2ha of accessible natural greenspace per 1000 population according to a system of tiers into which sites of different sizes fit:	Accessible Natural Green Space Standards in Towns and Cities: A review and

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	▪ No person should live more than 300m from their nearest area of natural greenspace; ▪ There should be at least one accessible 20ha site within 2km from home; ▪ There should be one accessible 100ha site within 5km; and ▪ There should be one accessible 500ha site within 10km.	Toolkit for their Implementation (2003) and Nature Nearby: Accessible Green Space Guidance (2010)
	Fields in Trust guidance, first published in the 1930s, is based on a broad recommendation that 6 acres (2.4 hectares) of accessible green space per 1,000 head of population enables residents of all ages to participate in sport and play; 75% of local authorities adopt this or an equivalent standard (2014 Fields in Trust / David Lock Associates Survey).	Guidance for Outdoor Sport and Play (2015)
	Communities should identify green infrastructure requirements in their local area through addition to or creative enhancement of the existing network. Look to enhance local landscape character, heritage and biodiversity and ensure long term management is included in an overall strategy.	Local Green Infrastructure: helping communities make the most of their landscape: Landscape Institute for Green Infrastructure Partnership (2011).
	The Landscape Institute's most recent position statement, 'Green Infrastructure LI Position Statement 2013' sets out why GI is crucial to our sustainable future. The publication showcases a range of successful GI projects and shows how collaboration is key to delivering multifunctional landscapes. It also illustrates why landscape professionals should take the lead on the integration of GI.	Green Infrastructure: An integrated approach to landscape use. Landscape Institute Position Statement (2013)
	Paragraph 174 of the NPPF requires developments to protect and enhance valued landscapes and recognise the intrinsic character and beauty of the countryside. Paragraph 176 of the NPPF states that great weight should be given to conserving and enhancing landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.	National Planning Policy Framework (NPPF), 2021

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Paragraph 177 of the NPPF states that when considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest.	
	Paragraph 5.149 states that when judging the impact of a project on landscape, the decision is dependent on the nature of the existing landscape likely to be affected and the nature of the effect likely to occur. The project should aim to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.	National Policy Statement for National Networks (2014)
	Goal 6: Enhancing beauty, heritage and engagement with the natural environment, is to "safeguard and enhance the beauty of our natural scenery and improving its environmental value while being sensitive to considerations of its heritage."	25 Year Environment Plan (2018)
	Regional/ Local	
	Policy DM 1 clearly outlines the importance of the protection of the quality and character of the landscape within the county. Warwickshire's landscapes include several landscape character areas, including Arden, Dunsmore, Feldon, Cotswolds and Mease Lowlands mentioned within this document. Part of the Cotswolds character area is designated as an Area of Outstanding Natural Beauty (AONB), a national designation to conserve the natural beauty of a landscape of recognised importance. Therefore, protection for landscape within the policy is strong; outlining that '*planning permission for major minerals development in a designated AONB will be refused, except in exceptional circumstances and where it can be demonstrated that it is in public interest'.*	Warwickshire Minerals Plan 2018
	The main vision for the landscape is for: *"The integration of development and modern land management into the landscape, especially in areas with strong landscape character, in order to ensure that the beauty and diversity of the sub-region is conserved for present and future generations to enjoy"*	Warwickshire, Coventry & Solihull Sub-Regional Green Infrastructure Strategy, 2013

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The main purpose of the plan is to: 1. To conserve and enhance the natural beauty of the Cotswolds AONB. 2. To increase the understanding and enjoyment of the special qualities of the Cotswolds AONB. The plain identifies three key issues: • Erosion of the natural beauty and special qualities of the Cotswolds AONB • Lack of a consistent approach across the whole of the Cotswolds AONB • Lack of understanding of the benefits of AONB designation. In light of these issues, four key ambitions have been established: • To promote the Cotswolds AONB as the Walking and Exploring Capital of England. • To secure the local design and delivery of a Cotswolds AONB package of agri-environment payments for public goods and services and rural development support. • To ensure that communities and businesses within and around the Cotswolds AONB identify and celebrate being part of a nationally recognised landscape. • To promote the case for the Cotswolds being designated as England's next National Park.	Cotswolds Area of Outstanding Natural Beauty Management Plan, 2018-2023
	The plan includes strategic objectives to support landscape and township topic: Objective B – Providing well-designed new developments that are in the right location and address climate change. (9) Protect and enhance high-quality landscapes and important heritage and natural assets, ensuring that where adaptation is needed, this is done in a way that is sensitive to their significance. Policy NE4 supports this outlining the requirements and considerations for development to abide by in order to gain support.	Warwick District Local Plan 2011 - 2029
	The third strategic objective of the policy support the landscape and townscape chapter, outlining that *'the character and local distinctiveness of the District will have been reinforced by ensuring new development is of high-quality design, taking into account the intrinsic and special value of its landscapes and townscapes'*. In addition, policy CS.5 aims to protect the landscape with specific focus on landscape character and enhancement; visual impacts; trees, and, woodland and hedges.	Stratford-on-Avon Core Strategy 2011-31

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Policy NE3: Landscape Protection and Enhancement - Aim to either conserve, enhance or restore important landscape features in accordance with the latest local and national guidance	Rugby Borough Council Local Plan 2011-2031
Historic Environment	**National**	
	Paragraph 174 of the NPPF requires developments to protect and enhance valued landscapes and recognise the intrinsic character and beauty of the countryside. Paragraph 176 of the NPPF states that great weight should be given to conserving and enhancing landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection. The scale and extent of development within these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. Paragraph 177 of the NPPF states that when considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest.	National Planning Policy Framework (NPPF), 2021
	Paragraph 5.149 states that when judging the impact of a project on landscape, the decision is dependent on the nature of the existing landscape likely to be affected and the nature of the effect likely to occur. The project should aim to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.	National Policy Statement for National Networks (2014)
	Goal 6: Enhancing beauty, heritage and engagement with the natural environment, is to “safeguard and enhance the beauty of our natural scenery and improving its environmental value while being sensitive to considerations of its heritage.”	25 Year Environment Plan (2018)
	This is an Act relating to special controls in respect of buildings and areas of special architectural or historic interest.	Planning (Listed buildings and Conservation Areas) Act 1990

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Where Ancient Monuments occur on agricultural land the following Act influences the extent of public control to ensure the protection of scheduled ancient monuments.	1979 Ancient Monuments and Archaeological Areas Act
	This document sets out principles which ensure that public realm works also consider the conservation and enhancement of the historic environment. These principles also support the following overarching objectives for a sustainable public realm: ▪ An Inclusive Environment ▪ Public safety and ease of movement ▪ A healthy environment that supports our wellbeing and cohesion ▪ A high quality environment ▪ Economic benefit	Historic England, Streets for All, 2018
	Regional/ Local	
	The strategy sets the overarching vision of: *"By 2025 Warwickshire will have a thriving, innovative and creative heritage and culture sector working collaboratively to develop and deliver a rich, high quality, accessible heritage and cultural offer for all who live, work and visit Warwickshire".* In order to support this vision two objectives have been defined: • To create the conditions to enable a thriving, innovative and creative heritage and culture sector • To empower the heritage and culture sector to support the county council in transforming the way services are designed and delivered for the benefit of all who live, work and visit Warwickshire	Warwickshire's Heritage and Culture Strategy 2020—2025
	Policy DM 2 Warwickshire's Historic Environment & Heritage Assets – this outlines the safeguarding the importance of the historic environment within the county. The policy outlines developments should seek to conserve and enhance the significance of affected heritage assets and their settings	Warwickshire Minerals Plan 2018
	The overarching policy of this document outlines the need for new developments to breed a strong community which is formed and sustained (Policy SC0 Sustainable Communities). As part of this these developments should enhance the historic, built and natural features of the county:	Warwick District Local Plan 2011 - 2029

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	(k) protect and where possible enhance the historic environment and particularly designated heritage assets such as listed buildings, registered parks and gardens and conservation areas HE1 Designated Heritage Assets and their setting – this policy outlines that no development will be permitted if it was to lead to substantial harm to or loss of a designated heritage asset (unless for the need of public benefit), which is a consideration of the LTP. The policy sets out acceptable caveats for developments where the historic environment could be affected.	
	Historic environment is covered by the main objectives of the strategy, outlining that '*The historic character of the District will have been maintained and enhanced. Sites of historic importance will have been protected from harmful development'*. Policy CS.5 Landscape sets out that proposals should have regard for the local distinctiveness and historic character of the diverse landscape, and therefore provides protection to historic character/setting. This is also supported by Policy CS.7 Green Infrastructure, giving protection to historic and archaeological settings, sense of plan and the distinctive landscape character of the District. Policy CS.8 Historic Environment sets out to protect and enhance inherent value and enjoyment of features for present and future residents and visitors. However, the policy allows for caveats for when developments are to affect designated assets, such as if there was significant public benefit from the development.	Stratford-on-Avon Core Strategy 2011-31
	There are 4 key objectives within the strategy that support the protection and enhancement of the historic environment. However, Policy NW14 outlines the importance of the sites and the council's approach to protect and enhance assets where possible. As well as historic assets, the policy also references the importance of historic landscape character areas within the region.	North Warwickshire Local Plan, Core Strategy, 2014
	Policy SDC3: Protecting and Enhancing the Historic Environment outlines that development that sustains or enhances the significance of assets (listed buildings, conservation areas, historic parka and gardens, archaeology, historic landscapes/townscapes) will be promoted. However, there are caveats within the policy for developments affecting assets, outlining that they will be assessed against the benefit provided to the public.	Rugby Borough Council Local Plan 2011-2031
	National	

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
Water Environment	The Directive provides a comprehensive river basin management planning system to help protect and improve the ecological health of rivers, lakes, estuaries and coastal and groundwaters. This is underpinned by the use of environmental standards to help assess risks to the ecological quality of the water environment and to identify the scale of improvements that would be needed to bring waters under pressure back into a good condition.	The Water Framework Directive (England and Wales) Regulations 2017
	"… inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere".	National Planning Policy Framework (NPPF), 2021 - Paragraph 159
	"… if there is no reasonably available site in Flood Zones 1 or 2, then national networks infrastructure projects can be located in Flood Zone 3, subject to the Exception Test. Both elements of the test will have to be passed for development to be consented…"	National Policy Statement for National Networks (2014)- Paragraph 5.105
	"Any project that is classified as 'essential infrastructure' and proposed to be located in Flood Zone 3a or 3b should be designed and constructed to remain operational and safe for users in times of flood; and any project in Zone 3b should result in no net loss of floodplain storage and not impede water flows".	National Policy Statement for National Networks (2014)- Paragraph 5.109
	"Activities that discharge to the water environment are subject to pollution control"	National Policy Statement for National Networks (2014)- Paragraph 5.224
	"… impacts on the water environment should be given more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Framework Directive".	National Policy Statement for National Networks (2014)- Paragraph 5.225
	"Improve at least three quarters of our waters to be close to their natural state as soon as is practicable by: […] Reaching or exceeding objectives for rivers, lakes, coastal and ground waters that are specially protected, whether for biodiversity or drinking water".	A Green Future: Our 25 Year Plan to Improve the Environment (2018)- Goal 2 'Clean and plentiful water'
	Local/ Regional	

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	The WRMP demonstrates long term plans to accommodate the impacts of population growth, drought, environmental obligations and climate change uncertainty in order to balance the supply and demand for water within the region. The plan has a number of key objectives related to future challenges, including: - Preserving current levels of resilience against droughts - Tackling unsustainable abstractions and preventing future environmental deterioration - Planning for climate change - Meeting future population and development growth - Improving resilience in supply	Severn Trent Water, Water Resources Management Plan 2019
	There are a number of significant water management issues. These include: • Physical modifications - affecting 42% of water bodies in this river basin district • Pollution from waste water – affecting 38% of water bodies in this river basin district • Pollution from towns, cities and transport - affecting 16% of water bodies in this river basin district • Changes to the natural flow and level of water - affecting 6% of water bodies in this river basin district • Negative effects of invasive non-native species – affecting <1% of water bodies in this river basin district • Pollution from rural areas - affecting 32% of water bodies in this river basin district • Pollution from abandoned mines - affecting 4% of water bodies in this river basin district	Humber River Basin District River Basin Management Plan, 2015
	There are a number of significant water management issues. These include: • Physical modifications - affecting 27% of water bodies in this river basin district • Pollution from waste water – affecting 29% of water bodies in this river basin district • Pollution from towns, cities and transport - affecting 12% of water bodies in this river basin district • Changes to the natural flow and level of water - affecting 7% of water bodies in this river basin district • Negative effects of invasive non-native species – affecting <1% of water bodies in this • river basin district	Severn River Basin District River Basin Management Plan, 2015

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	• Pollution from rural areas - affecting 40% of water bodies in this river basin district • Pollution from abandoned mines - affecting 2% of water bodies in this river basin district	
	There are a number of significant water management issues. These include: • Physical modifications - affecting 44% of water bodies in this river basin district • Pollution from waste water – affecting 45% of water bodies in this river basin district • Pollution from towns, cities and transport - affecting 17% of water bodies in this river basin district • Changes to the natural flow and level of water - affecting 12% of water bodies in this river basin district • Negative effects of invasive non-native species - affecting 3% of water bodies in this river basin district • Pollution from rural areas - affecting 27% of water bodies in this river basin district	Thames River Basin District River Basin Management Plan, 2015
	The minerals plan includes for the protection of natural resources as key elements of the plan, including: Policy DM 1 Protection and enhancement of environmental assets and landscapes - *Mineral development should protect, conserve, and where possible enhance, environmental assets and landscapes (the natural environment) by ensuring that there are no unacceptable adverse impacts upon: b. natural resources (including water, air and soil resources);*	Warwickshire Minerals Plan 2018
	The strategy outlines a vision for new and existing buildings and infrastructure to be more water and energy efficient, which is supported by policies. There is also a focus to maintain and restore floodplain where opportunities arise. Along with an objective to take a catchment-based approach to flood management and striving the reach good status or potential in in line with the WFD requirements. Policy CS.4 Water Environment and Flood Risk - All development proposals will take into account, dependent on their scale, use and location, the predicted impact of climate change on the District's water environment. Measures will include sustainable use of water resources, minimising water consumption, protecting and improving water quality, and minimising flood risk from all sources, as set out in the most up-to-date Strategic Flood Risk Assessment (SFRA).	Stratford-on-Avon Core Strategy 2011-31
	Parts 11 and 12 of policy NW10 – Development Considerations – support improved consideration for water quality and management for developments.	North Warwickshire Local Plan, Core Strategy, 2014

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	11. manage the impacts of climate change through the design and location of development, including sustainable drainage, water efficiency measures, use of trees and natural vegetation and ensuring no net loss of flood storage capacity; and, 12. protect the quality and hydrology of ground or surface water sources so as to reduce the risk of pollution and flooding, on site or elsewhere;	
	The Local Plan sets out various policies supporting water quality management and flooding: Policy SDC5: Flood Risk Management – this outlines a sequential approach to location of developments is to be adopted based on the EA flood zones, steering developments to areas of lower flood risk. Policy SDC6: Sustainable Drainage – proposed developments should be outside of floodplains, have appropriate drainage measures and improve water quality. Policy SDC7: Protection of the Water Environment and Water Supply – Ensuring development is in accordance with the Water Framework Directive Objectives and does not adversely affect the waterbodies' ability to reach good status or potential as set out in the River Severn 'River Basin Management Plan' (RBMP).	Rugby Borough Council Local Plan 2011-2031
Air Quality, Climate Change and Greenhouse Gases	**International**	
	Developed countries commit themselves to reducing their collective emissions of six key greenhouse gases by at least 5%. Each country's emissions target must be achieved by the period 2008-2012. Doha Amendment saw parties commit to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020.	Kyoto Protocol to the UN Framework Convention on Climate Change (1992) Doha Amendment to the Kyoto Protocol (2012)
	Improve carbon management and help the transition towards a low carbon economy in the UK. Demonstrate strong UK leadership internationally, showing the commitment to taking shared responsibility for reducing global emissions in the context of developing negotiations on a post-2012 global agreement at Copenhagen in 2009. Greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline.	The Climate Change Act, 2008

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Aims to limit the global warming change to below 2°C above pre-industrial levels. However, countries aim to limit the increase to 1.5°C to reduce the impacts of global warming. The EU has committed to a binding target of a reduction of at least 40% in greenhouse gas emissions by 2030 compared to 1990	The Paris Agreement, 2015
	National	
	Paragraph 154 of the NPPF states that "New development should be planned for in ways that: a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the UK Government's policy for national technical standards."	National Planning Policy Framework (NPPF), 2021
	Paragraph 4.38 of the NN NPS states that "New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure." The NN NPS also requires carbon impacts to be considered as part of the appraisal of scheme options, and an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive. It goes on to state that "it is very unlikely that the impact of a road project will, in isolation, affect the ability of UK Government to meet its carbon reduction plan targets."	Department for Transport, National Policy Statement for National Networks, 2014
	Goal 7 of the 25 Year Environment Plan, 'Mitigating and adapting to climate change', is to "take all possible action to mitigate climate change, while adapting to reduce its impact" by "continuing to cut greenhouse gas emissions including from land use, land use change…" and "making sure that all policies, programmes and investment decisions consider the possible extent of climate change this century". With regards to the transport sector, the 25 Year Environment Plan identifies four 'early' priorities through the 'Future of Mobility Grand Challenge'. These include encouraging new modes of transport; addressing	25 Year Environment Plan, HM Government (2018)

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	the challenges of moving from hydrocarbon to zero emission vehicles; and Preparing for a future of new mobility services, increased autonomy, journey-sharing and a blurring of the distinctions between private and public transport.	
	The UK has committed to an 80% reduction in its greenhouse gas emissions by 2050. In order to help meet this target, the UK Committee on Climate Change (CCC) has devised a series of interim UK "carbon budgets" as follows: ■ 1st carbon budget (2008 to 2012): 23% reduction; ■ 2nd carbon budget (2013 to 2017): 29% reduction; ■ 3rd carbon budget (2018 to 2022): 35% reduction by 2020; ■ 4th carbon budget (2023 to 2027): 50% reduction by 2025; ■ 5th carbon budget (2028 to 2032): 57% reduction by 2030.	UK Committee on Climate Change, Interim UK Carbon Budgets
	This Strategy sets out a comprehensive set of policies and proposals that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions. Key Policies and Proposals in the Strategy: ■ Develop world leading Green Finance capabilities; ■ Develop a package of measures to support businesses to improve their energy productivity, by at least 20 per cent by 2030; ■ Improving the energy efficiency of our homes; ■ Rolling out low carbon heating; ■ Accelerating the shift to low carbon transport; ■ Delivering clean, smart, flexible power emissions; and ■ Enhancing the benefits and value of our natural resources.	The Clean Growth Strategy, 2017
	The 25 Year Environment Plan outlines the UK Government's ambition to leave our environment in a better state than we found it and the steps proposed to take to achieve that ambition. Mitigating and adapting to climate change: Continuing to cut greenhouse gas emissions including from land use, land use change, the agriculture and waste sectors and the use of fluorinated gases. The UK Climate Change Act 2008 commits us to reducing total greenhouse gas emissions by at least 80 per cent by 2050 when compared to 1990 levels; Making sure that all policies, programmes and investment decisions take into account the possible extent of climate change this century; and	A Green Future: Our 25 Year Plan to Improve the Environment, 2018

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Implementing a sustainable and effective second National Adaptation Programme.	
	Accords air quality considerations substantial weight where, after taking into account mitigation, a scheme would lead to a significant air quality impact in relation to Environmental Impact Assessment (EIA) and/ or where they lead to deterioration in air quality in a zone/ agglomeration.	National Policy Statement for National Networks (2014)- Paragraph 5.12
	Addresses action to reduce emissions from transport "as a significant source of emissions of air pollution", in-particular oxides of nitrogen (NO_x) – which is responsible for high levels of NO_2 in ambient air, especially in urban areas - and particulate (PM_{10} and $PM_{2.5}$) emissions.	Clean Air Strategy 2019
	Regional/ Local	
	In 2015 Warwickshire County Council's Cabinet approved the establishment of a Warwickshire Energy Plan (WEP). This plan has three main policy areas: 1. Increase the use of low and zero-carbon technologies 2. Increase public support for low and zero-carbon technologies 3. Take people out of fuel poverty to improve their health and well-being One of the key drivers for the Local Plan is to ensure well-designed new developments are provided that are in the right location and address climate change 4. Making sure that new developments are in places that will reduce the need for people to use their cars. This will minimise air pollution, help address climate change by reducing road congestion and carbon emissions, and encourage people to live more healthy lifestyles by facilitating walking and cycling. POLICY DS3 Supporting Sustainable Communities - e) delivering a low carbon economy and lifestyles and environmental sustainability. CC1 Planning for Climate Change Adaptation and CC2 Planning for Renewable Energy and Low Carbon Generation	Warwickshire Energy Plan and Warwick District Local Plan 2011 - 2029
	The Strategy outlines targets to be achieved by 2031, including:	Stratford-on-Avon Core Strategy 2011-31

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	(5) The District will have reduced its greenhouse gas emissions, so as to contribute to the national target for reduction, through a range of measures such as the location and design of development, provision of renewable and low carbon energy schemes, and promoting opportunities for low carbon travel. Policy CS.2 Climate Change and Sustainable Construction Designing development to reduce carbon emissions and make efficient use of natural resources. Promoting decentralised low carbon and renewable energy schemes Policy CS.3 Sustainable Energy A. Renewable and Low Carbon Energy Generation Policy CS.26 Transport and Communications - The Council will support the strategic transport schemes set out in the Infrastructure Delivery Plan, subject to the outcome of detailed assessment where appropriate. Schemes and initiatives that address local issues, such as community transport, road safety, parking, congestion and air quality, will be supported subject to assessment.	
	The strategy outlines a number of core objectives, including: - To deliver high quality developments based on sustainable and inclusive designs - promote sustainable construction practices including energy efficiency, recycling and addresses crime and safety issues - To establish and maintain a network of accessible good quality Green Infrastructure, open spaces, sports and recreational facilities - This will promote well-being, social inclusion and community cohesion, in addition to both economic and environmental benefits Policy NW1 Sustainable Development Policy NW10 Development Considerations - promote healthier lifestyles for the community to be active outside their homes and places of work; encourage sustainable forms of transport focussing on pedestrian access and provision of bike facilities; and, seek to maximise opportunities to encourage re-use and recycling of waste materials, both in construction and operation Policy NW11 - Renewable Energy and Energy Efficiency	North Warwickshire Local Plan, Core Strategy, 2014
	The policy document outlines overarching targets and objectives for the district. Policy HS5: Traffic Generation and Air Quality, Noise and Vibration Development proposals should promote a shift to the use of sustainable transport modes and low emission vehicles (including electric/hybrid cars) to minimise the	Rugby Borough Council Local Plan 2011-2031

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	impact on air quality, noise and vibration caused by traffic generation. Proposals should be located where the use of public transport, walking and cycling can be optimised. Proposals should take full account of the cumulative impact of all development including that proposed in this Local Plan on traffic generation, air quality, noise and vibration. Development proposals should complement the Air Quality Action Plan	
Soil, Land Use Resource and Waste	**National**	
	"… contribute to and enhance the natural and local environment by: Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils…; Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability…; and Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate".	National Planning Policy Framework (NPPF), 2021 - Paragraph 174
	Requires land stability to be considered in respect of new development. Specifically, proposals should be appropriate for the location, including preventing unacceptable risks from land instability.	National Policy Statement for National Networks (2014)- Paragraph 5.117
	"Applicants should also identify any effects, and seek to minimise impacts, on soil quality, considering any mitigation measures proposed. Where possible, developments should be on previously developed (brownfield) sites provided that it is not of high environmental value. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination and how it is proposed to address this".	National Policy Statement for National Networks (2014)- Paragraph 5.168
	"Improve our approach to soil management: by 2030 we want all of England's soils to be managed sustainably, and we will use natural capital thinking to develop appropriate soil metrics and management approaches".	A Green Future: Our 25 Year Plan to Improve the Environment (2018)- Goal 5 'Clean and plentiful water' Using resources from nature more sustainably and efficiently'

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Seeks to facilitate the sustainable use of minerals	National Planning Policy Framework (NPPF), 2021- Section 17
	So far as practicable, planning policies should “take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously”.	National Planning Policy Framework (NPPF), 2021 - Paragraph 210
	“Evidence of appropriate mitigation measures (incorporating engineering plans on configuration and layout and use of materials) in both design and construction should be presented”.	National Policy Statement for National Networks (2014)- Paragraph 5.19
	Sets out how the UK Government aims to preserve material resources by minimising waste, promoting resource efficiency and moving towards a circular economy in England.	Our Waste, Our Resources: A Strategy for England (Dec 2018)
	Regional/ Local	
	The Vision of the plan is: “*By the end of the plan period in 2032 Warwickshire will have provided a range of minerals and construction materials to support sustainable economic growth and improve the quality of life in the County. While minerals can only be worked where they are found, minerals sites will have been located as close as possible to the main settlements of Stratford, Warwick, Kenilworth, Leamington, Rugby, Nuneaton, Bedworth and Atherstone to support sustainable development. Minerals will have been safeguarded from non-mineral development and opportunities for prior extraction will have been sought wherever possible.* *New quarries will have been located where they are environmentally acceptable or where any adverse impacts will have been mitigated to an acceptable level through good design and the imposition and monitoring of planning conditions and obligations. Mineral sites will have delivered a range of local and strategic restoration benefits.* *Recycled and Secondary Aggregates will continue to make a major contribution to the supply of materials to the construction industry in the County and as technology develops will continue to provide a substitute for primary aggregates in new construction projects where possible”*	Warwickshire County Council Minerals Plan, 2018

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	NW10 Development Considerations Development should not sterilise viable known mineral reserves; degrade soil quality or pose risk to human health and ecology from contamination or mining legacy and ensure that land is appropriately remediated.	North Warwickshire Local Plan, Core Strategy, 2014
	Policy AS.10 – Countryside and Villages *"In order to help maintain the vitality of rural communities and a strong rural economy, provision will be made for a wide range of activities and development in rural parts of the District."* The council will assess proposals for sustainable development principles. Proposals should seek to avoid the loss of large areas of higher quality agricultural land.	Stratford-on-Avon District, Core Strategy, 2011-2031
	Policy NE5 - Protection of Natural Resources Development proposals will be permitted provided that they ensure that the district's natural resources remain safe, protected, and prudently used. Development proposals will be expected to demonstrate that they: d) avoid the best and most versatile agricultural land unless the benefits of the proposal outweigh the need to protect the land for agricultural purposes; e) do not sterilise mineral resources identified as of particular importance unless it can be demonstrated that it would not be practicable and environmentally feasible to extract the identified mineral resource prior to development taking place.	Warwick District, Local Plan, 2011-2029
Noise and Vibration	**National**	
	Paragraph 185 state planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life.	National Planning Policy Framework (NPPF), 2021

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	Paragraph 5.193 states that developments must be undertaken in accordance with statutory requirements for noise. Due regard must have been given to the relevant sections of the Noise Policy Statement for England, National Planning Policy Framework and the UK Government's associated planning guidance on noise. Paragraph 5.192 states that the Secretary of State should not grant development consent unless satisfied that the proposals will meet, the following aims, within the context of UK Government policy on sustainable development: avoid significant adverse impacts on health and quality of life from noise as a result of the new development; mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and contribute to improvements to health and quality of life through the effective management and control of noise, where possible.	National Networks National Policy Statement (NN NPS) (2014)
	The long-term vision for the Noise Policy Statement for England is to *"promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development."*	Noise Policy Statement for England (2010)
	Regional/ Local	
	NE5 Protection of Natural Resources Development proposals will be permitted provided that they ensure that the district's natural resources remain safe, protected, and prudently used. Development proposals will be expected to demonstrate that they: a) do not give rise to soil contamination or air, noise, radiation, light or water pollution where the level of discharge, emissions or contamination could cause harm to sensitive receptors; TR2 Traffic Generation	Warwick District, Local Plan, 2011-2029

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	All large-scale developments (both residential and non-residential) that result in the generation of significant traffic movements should be supported by a Transport Assessment, and where necessary a Travel Plan, to demonstrate the practical and effective measures to be taken to avoid the adverse impacts of traffic. Any development that results in significant negative impacts on the health and wellbeing of people in the area as a result of pollution, noise or vibration caused by traffic generation will not be permitted unless effective mitigation can be achieved.	
	NW10 Development Considerations Development should meet the needs of residents and businesses without compromising the ability of future generations to enjoy the same quality of life that the present generation aspires to. Development should: avoid and address unacceptable impacts upon neighbouring amenities through overlooking, overshadowing, noise, light, fumes or other pollution; and,	North Warwickshire Local Plan, Core Strategy, 2014
	Policy HS5: Traffic Generation and Air Quality, Noise and Vibration Development proposals should promote a shift to the use of sustainable transport modes and low emission vehicles (including electric/hybrid cars) to minimise the impact on air quality, noise and vibration caused by traffic generation. Proposals should be located where the use of public transport, walking and cycling can be optimised. Proposals should take full account of the cumulative impact of all development including that proposed in this Local Plan on traffic generation, air quality, noise and vibration. Development proposals should complement the Air Quality Action Plan.	Rugby Borough Council, Local Plan, 2011-2031
	Policy BE2 – Renewable and low carbon energy Wind Energy Land within the borough is highly constrained and is not suitable for large scale wind energy. Proposals for small scale wind energy will be approved where appropriate in conjunction with the below criteria. 1. No significant harm to the amenity of and safety of residential areas, particularly in relation to: a. noise pollution, proximity and/or highway safety;	Nuneaton and Bedworth Borough Council, Borough Plan, 2011-2031

ISA Topic	Message/ Issue for the development of the Transport Plan	Document
	b. electromagnetic interference; c. unacceptable shadow flicker; and d. impacts on aviation. 2. Certified accreditation or similar evidence of the wind turbine meeting the RenewableUK Small Wind Turbine Performance and Safety Standard should be provided with the planning application prior to the granting of planning permission. 3. A decommissioning scheme is in place. The applicant should expect that the council will request that a bond be provided under a planning obligation to cover the cost of decommissioning and/or restoration of the site.	

Appendix F

SCOPING CONSULTATION COMMENTS

Table F-1 – Consultation Comments

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
1	Historic England	11/10/2021	Thank you for the opportunity to comment on the Warwickshire Local Transport Plan Integrated Sustainability Appraisal (ISA) Scoping Report.	General	Noted
2	Historic England	11/10/2021	As the Government's adviser on the historic environment, Historic England is keen to ensure that the protection of the historic environment is fully taken into account at all stages and levels of the local planning process. Therefore, we welcome the opportunity to comment on this Draft Sustainability Appraisal Scoping report as part of the early engagement in the process of preparing the LTP4.	General	Noted
3	Historic England	11/10/2021	The historic environment should be considered as part of the sustainability appraisal process. We recommend that these comments should be read alongside Historic England's Advice Note 8: Sustainability Appraisal and Strategic Environmental Assessment, 2016 (HEAN8). Our advice note provides more guidance to developing a robust sustainability appraisal framework.	General	Noted - Advice note has been considered.
4	Historic England	11/10/2021	Historic England welcomes the underlying aims of the key messages from the Policy Review, set out under the SA topic of 'Historic Environment', but also considers that opportunities to conserve heritage at risk should be specifically included here (as per section 5.8.3 of the report).	Section 4: Policy Context	Specific mention to conserving 'heritage at risk' has been included.
5	Historic England	11/10/2021	Additionally, we suggest that in some cases the wording could be amended to better reflect that of the NPPF. Phrases such as 'sustaining and enhancing the significance of heritage assets' (NPPF para.190) and 'opportunities to enhance or better reveal' the significance of Conservation Areas and	Section 4: Policy Context	Table 4-1 and Appendix A have been updated to reflect the latest NPPF

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
			heritage assets (NPPF para.206) should be considered for inclusion.		
6	Historic England	11/10/2021	We also suggest that the term 'historical assets' should be amended to 'heritage assets' and that rather than referring to 'undesignated' heritage assets, the wording should be amended to 'non-designated' heritage assets. We therefore suggest that this section of the report is re-drafted to more closely align with Chapter 16 of the NPPF.	Section 4: Policy Context	Noted and amended throughout
8	Historic England	11/10/2021	It is important to note that previously unknown undesignated assets have the potential to be of national significance, on a similar level to that of a Scheduled Monument (NPPF, footnote 68).	Section 4: Policy Context	Noted - Added to Appendix A
9	Historic England	11/10/2021	Historic England also considers that mention should be made of the historic environment within the SA topic of 'Landscape and Townscape'.	Section 4: Policy Context	The contributions that cultural heritage makes to landscapes has been added to the landscape section.
10	Historic England	11/10/2021	We note that the Summary of 'Current Baseline' at paragraph 5.8.1 refers to 'Battle of Edgehill 1642 registered battleground'. This should be amended to refer to 'Registered Battlefield'.	Section 5: Baseline - 5-8 Historic Environment	Text has been updated
11	Historic England	11/10/2021	With regard to para.5.8.4, whilst it is technically correct to say that the Cotswolds AONB provides the setting for two World Heritage Sites (WHS), these being Blenheim Palace to the east and the city of Bath in the West, we note that both of these WHSs lie at some distance from the Warwickshire portion of the AONB and it is unlikely that development within Warwickshire would have any impact on the setting of these World Heritage Sites.	Section 5: Baseline - 5-8 Historic Environment	Agree - sentence has been removed

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
12	Historic England	11/10/2021	With regard to the Historic Environment Sustainability Issues and Opportunities that have been identified in Table 5-13, we consider that the first and the third bullet points should have regard to footnote 68 of the NPPF, as non designated heritage assets of archaeological interest, which are of demonstrably equivalent significance to scheduled monuments, should be considered subject to the polices for designated heritage assets, with paragraph 201 of the NPPF advising that local planning authorities should refuse consent for development in such cases.	Section 5: Baseline - 5-8 Historic Environment	NPPF has been reviewed and use to inform these objectives. Table 5-13 has been updated.
13	Historic England	11/10/2021	We are pleased to see that the second bullet point includes consideration of the setting of heritage assets and that the last bullet point refers to the impact of vehicle damage and pollution on listed buildings and Scheduled Monuments.	Section 5: Baseline - 5-8 Historic Environment	Noted
14	Historic England	11/10/2021	However, we consider that the aim of reducing vehicle movements in historic areas should not be confined to urban areas alone, as many Scheduled Monuments are located in rural areas, and there are also many villages within Warwickshire's rural area where reducing vehicle movements, and thereby cutting pollution and vibration levels, would greatly benefit the historic environment.	Section 5: Baseline - 5-8 Historic Environment	Table 5-13 has been updated.
15	Historic England	11/10/2021	We welcome the recognition in bullet point 4 that ancillary features of transport infrastructure can adversely impact upon the setting of historic assets, and refer you Historic England's publication "Streets for All", which gives advice on highway and public realm works, and can be accessed via the following link: https://historicengland.org.uk/images-books/publications/streets-for-all/heag149-sfa-national/	Section 5: Baseline - 5-8 Historic Environment	Streets for All has been reviewed and included within Appendix A

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
16	Historic England	11/10/2021	We also suggest that in this section the wording 'heritage assets' is used instead of 'historic assets', to better align with the terminology of the NPPF.	Section 5: Baseline - 5-8 Historic Environment	Amended throughout report
17	Historic England	11/10/2021	We welcome that identified within the 'Sustainability Opportunities' is that the LTP presents opportunities for enhancing the understanding and appreciation of the significance of above ground heritage assets. However, we consider that this opportunity should be expanded to include below-ground heritage assets, as traffic vibration can impact on archaeological remains and the development of new transport infrastructure can affect historic landscapes.	Section 5: Baseline - 5-8 Historic Environment	The sustainability issues have been updated to reflect this.
18	Historic England	11/10/2021	With regard to the second identified opportunity focused on cultural heritage assisting to increase tourism and revenue within the County, Historic England is strongly supportive of opportunities for new transport measures to promote and enhance access to, and enjoyment of, the historic environment.	Section 5: Baseline - 5-8 Historic Environment	Noted
19	Historic England	11/10/2021	Historic England welcomes the recognition in the second identified opportunity that by increasing access to the countryside through transport schemes, better appreciation of historic landscape assets can be enabled through creating new views and vistas. This is reflective of the NPPF paragraph 206, which advises local planning authorities to look for opportunities for new development within Conservation Areas and within the setting of heritage assets, to enhance or better reveal their significance.	Section 5: Baseline - 5-7 Landscape and Townscape	Noted
20	Historic England	11/10/2021	However, we also suggest that historic landscapes are also referred to in the 'Sustainability Issues' section of this topic.	Section 5: Baseline - 5-7	The sustainability issues have been updated to reflect this.

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
				Landscape and Townscape	
21	Historic England	11/10/2021	With regard to Table 6-1; Sustainability Appraisal Framework, Historic England welcomes Objective SA9: "To protect and enhance the historic environment, including heritage assets (designated and non-designated) and their unique settings", but suggest that the word 'protect' is amended to 'conserve'.	Section 6: Sustainability Framework	Table 6-1 has been updated
22	Historic England	11/10/2021	We are also supportive of Objective SA8: "To protect and enhance Warwickshire's townscapes and landscapes, including both the rural environment and town centres".	Section 6: Sustainability Framework	Noted
23	Historic England	11/10/2021	Historic England considers that decision-making criteria should also be added to this section and suggest that the following examples of appropriate criteria are included within the SA for the LTP4 to reflect a range of sustainability issues regarding the historic environment: Will the policy or proposal • Conserve and/or enhance heritage assets, their setting and the wider historic environment? • Contribute to the better management of heritage assets and tackle heritage at risk? • Improve the quality and condition of the historic environment? • Respect, maintain and strengthen local character and distinctiveness? • Promote high quality design? • Alter the hydrological conditions of water-dependent heritage assets, including organic remains?	Section 6: Sustainability Framework	Table 6-1 has been updated to include supporting questions to aid assessment. Some suggestions have been included, however, not all as there are some limits to what is achievable by the LTP.
24	Historic England	11/10/2021	Social: will the policy or proposal • Increase the social benefit (e.g. education, participation, citizenship, health and well-being) derived from the historic environment?	Section 6: Sustainability Framework	Table 6-1 has been updated to include supporting questions to aid assessment. Some suggestions have been included, however, not

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
			• Improve the satisfaction of people with their neighbourhoods as places to live? • Engage communities in identifying culturally important features and areas? • Provide for increased access to and enjoyment of the historic environment? • Provide for increased understanding and interpretation of the historic environment? • Provide access to new leisure, recreational, or cultural activities? • Support and widen community uses through increased access to shared facilities?		all as there are some limits to what is achievable by the LTP.
25	Historic England	11/10/2021	Economic: will the policy or proposal • Increase the economic benefit derived from the historic environment? • Promote heritage-led regeneration? • Lead to the repair and adaptive re-use of a heritage asset and encourage high quality design? • Make the best use of existing physical infrastructure, including buildings where possible? • Assist in promoting heritage based sustainable tourism?	Section 6: Sustainability Framework	Table 6-1 has been updated to include supporting questions to aid assessment. Some suggestions have been included, however, not all as there are some limits to what is achievable by the LTP.
26	Historic England	11/10/2021	Historic England also considers that the historic environment should be brought into other SA objectives and questions. For example: • Water – will the transport scheme/infrastructure impact the preservation of a waterlogged archaeological site? • Soil – Will the transport scheme/infrastructure impact the historic environment through issues such as contamination, changes to the preservation conditions on a site etc.	Section 6: Sustainability Framework	Table 6-1 has been updated to include supporting questions to aid assessment. Some suggestions have been included, however, not all as there are some limits to what is achievable by the LTP.
27	Historic England	11/10/2021	Overall, Historic England considers that the amendments to the SA framework, as set out above, are necessary to ensure	General	Noted

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
			that it meets the requirements of the Directive and Legislation in relation to heritage.		
28	Historic England	11/10/2021	The changes suggested will ensure compliance in this respect and will ensure the development of an appropriate framework for assessing the significant effects which this Transport Plan may have upon the historic environment of Warwickshire.	General	Noted
29	Natural England	12/10/2021	Natural England welcomes this Integrated Sustainability Appraisal (ISA) Scoping Report. We set out some more detailed comments below on issues that would benefit from further consideration. In all other respects we are satisfied that the proposed ISA framework and draft methodology are fit for purpose with respect to those themes within our remit: • Biodiversity & geodiversity • Landscape • Natural Resources (air, soil and water)	General	Noted
30	Natural England	12/10/2021	A recent EC judgement usually known as the Holloman case (Case C-461/17 Holohan v An Bord Pleanála 7/11/18) has highlighted the importance of an EIA or HRA considering impacts on habitat types and mobile species which are associated with a European designated site, but located outside of its boundaries.	HRA	Noted - This information has been passed on to our HRA tea.
31	Natural England	12/10/2021	The Plan area falls primarily within two hydrological catchments, associated with the Severn and the Humber estuaries respectively. The Severn Estuary Special Area of Conservation and Ramsar Site is hydrologically linked to the designated site through the Warwickshire River Avon, while the Humber Estuary is linked through the rivers Cole, Anker, Tame and Blythe.	HRA	This has been added to the Water Environment section of the baseline.

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
32	Natural England	12/10/2021	The Severn Estuary migratory fish species (including Atlantic salmon, Sea trout, Allis Shad, Twaite Shad, See lamprey, River lamprey and European eel) travel upstream through the River Severn and its tributaries, spending part of their life-cycle in the wider Severn hydrological catchment.	Section 5: Baseline - Water Environment	This information has been noted, however, we're aiming to keep the Scoping Report at a strategic level. As this is an ISA of a LTP we have decided to not include this information. It is not the responsibility of the LTP to deal with this issue.
33	Natural England	12/10/2021	Currently the tidal weir at Tewkesbury is believed to present an obstacle to most of the migratory fish species apart from the European eel, which has been recorded in the Warwickshire Avon. In the last few decades eel numbers have declined internationally by as much as 95% and have been listed by the International Union for Conservation of Nature (IUCN) on their Red List as critically endangered species. Barriers to their journey upstream and degradation of habitat and pollution are some of the contributing factors for the decline. The Humber Estuary migratory fish species are the Sea lamprey and River Lamprey. The River lamprey has been recorded as far upstream as the R. Dove (Staffordshire/Derbyshire).	Section 5: Baseline - Water Environment	This information has been noted, however, we're aiming to keep the Scoping Report at a strategic level. As this is an ISA of a LTP we have decided to not include this information. It is not the responsibility of the LTP to deal with this issue.
34	Natural England	12/10/2021	The removal or modification of existing weirs to facilitate fish passage is identified as a key action in River Basin Management Plans under the Water Framework Directive. In view of the mineral plan's timeframe, the 25 year Environment Plan's, (https://www.gov.uk/ government/publications/25-year-environment-plan), 'nature recovery' objectives and in line with the Severn and Humber Estuaries' conservation objectives	Section 5: Baseline - Water Environment	This information has been noted, however, we're aiming to keep the Scoping Report at a strategic level. As this is an ISA of a LTP we have decided to not include this information. It is not the responsibility of the LTP to deal with this issue.

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
35	Natural England	12/10/2021	consideration should be given to opportunities to maintain and restore the above named rivers' and tributaries' habitat features for the relevant migratory fish species.	Section 5: Baseline - Water Environment	This information has been noted, however, we're aiming to keep the Scoping Report at a strategic level. As this is an ISA of a LTP we have decided to not include this information. It is not the responsibility of the LTP to deal with this issue.
36	Natural England	12/10/2021	In addition to European eel, the Warwickshire Avon and its tributaries are believed to offer scope for species such as River lamprey, Sea lamprey, Atlantic salmon and Sea trout. Similar scope is believed to exist during the plan's lifetime for River lamprey to reach the Warwickshire tributaries of the Humber Estuary.	Section 5: Baseline - Water Environment	This information has been noted, however, we're aiming to keep the Scoping Report at a strategic level. As this is an ISA of a LTP we have decided to not include this information. It is not the responsibility of the LTP to deal with this issue.
37	Natural England	12/10/2021	Maintaining or achieving a good1 standard of water quality and sufficient flows is a necessary consideration when considering the potential impact of plans and projects on functionally linked watercourses and longer term there should be an aspiration to restore connectivity by removing barriers and to improve the quality of our freshwater habitats.	Section 5: Baseline - Water Environment	This has been included within the opportunities for the Water Environment - Table 5-16.
38	Natural England	12/10/2021	We advise that summary of current baseline describing biodiversity and natural capital should be updated to reflect this emerging theme.	Section 5: Baseline - Water Environment	Where appropriate, the water environment section of the baseline have been updated with the information provided.
39	Natural England	12/10/2021	With regard to soils and 'best and most versatile land' (Agricultural Land Classification grades 1, 2 and 3a) we note the summary of current baseline does not distinguish between	Section 5: Baseline - Soils and Resources	The text has been updated and differentiate 3a from 3b.

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
			ALC grades 3a (BMV) and 3b (which is not BMV). The following information may be useful in order to establish whether mapping evidence is available to address this: The 1:250 000 ALC dataset can be downloaded from the Natural England website http://www.gis.naturalengland.org.uk/pubs/gis/GIS_register.asp (there is also a link from the Magic website). The post 1988 ALC data layer (which shows a subdivision of Grade 3) can also be made available, by contacting Naturalenglandgidatamanagers@naturalengland.org.uk . Both these data sets are also available to download from http://www.geostore.com/environment-agency/ .		
40	Natural England	12/10/2021	The environmental assessment of the plan (SA and HRA) should also consider any detrimental impacts on the natural environment and suggest appropriate avoidance or mitigation measures where applicable.	General	The LTP's effects on the natural environment will be considered at the next stage of the ISA, where mitigation and monitoring measures will be identified.
41	Natural England	12/10/2021	Natural England advises that one of the main issues which should be considered in the plan and the SA/HRA are proposals which are likely to generate additional nitrogen emissions as a result of increased traffic generation, which can be damaging to the natural environment.	General	Noted. These effects will be considered within the ISA assessment.
42	Natural England	12/10/2021	The effects on local roads in the vicinity of any proposed development on nearby designated nature conservation sites (including increased traffic, construction of new roads, and upgrading of existing roads), and the impacts on vulnerable sites from air quality effects on the wider road network in the area (a greater distance away from the development) can be assessed using traffic projections and the 200m distance criterion followed by local Air Quality modelling where required.	General	Noted. This information will be used to inform the next stage of the ISA.

Ref.	Consultee	Date Received	Comment	In Reference to?	Description of Action Taken
			We consider that the designated sites at risk from local impacts are those within 200m of a road with increased traffic2, which feature habitats that are vulnerable to nitrogen deposition/acidification. APIS provides a searchable database and information on pollutants and their impacts on habitats and species.		
43	Natural England	12/10/2021	We note the summary of current baseline describing biodiversity and natural capital does not include reference to the Local Wildlife Sites. We advise that current baseline should be updated to describe these local designations (NPPF para 179 a))	Section 5: Baseline - Biodiversity and Natural Capital	The baseline has been updated to include LWS.
44	Natural England	12/10/2021	Natural England has not reviewed the plans listed. However, we advise that the following types of plans relating to the natural environment should be considered where applicable to your plan area; • Green infrastructure strategies • Biodiversity plans • Rights of Way Improvement Plans • Shoreline management plans • Coastal access plans • River basin management plans • AONB and National Park management plans. • Relevant landscape plans and strategies	Appendix B	Appendix B has been updated to reflect these proposed plans.

Level 2
100 Wharfside Street
Birmingham
B1 1RT

wsp.com