



Norfolk County Council

KING'S LYNN TRANSPORT STRATEGY UPDATE

Strategic Environmental Assessment:
Environmental Report Draft for Consultation





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Strategic Environmental Assessment: Environmental Report
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Type of Document (Version) PUBLIC

Project no. 70118741

Report Ref: 70118741-003-003

DATE: September 2025



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Strategic Environmental Assessment: Environmental Report
Draft for Consultation

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Quality Control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft	Draft for Client Comment	Draft for Consultation	
Date	July 2025	August 2025	September 2025	
Prepared by	DW	DW & EA	DW & EA	
Checked by	MMD	MMD	MMD	
Authorised by		RD	RD	
Project number	70118741	70118741	70118741	
Report number	70118741-003-001	70118741-003-002	70118741-003-003	
File reference				

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ASSESSMENT OF THE TRANSPORT STRATEGY UPDATE

Executive summary

Introduction

WSP has been commissioned to undertake a Strategic Environmental Assessment (SEA) in support of the King's Lynn Transport Strategy (TS). The requirement for SEA arises through the Environmental Assessment of Plans and Programmes Regulations 2004.

The TS sits below the Norfolk Local Transport Plan and this TS replaces the previous Transport Strategy, adopted in spring 2020. The updated TS reflects changes in national and local transport policy since 2020.

The TS and its Implementation Plan have been developed by NCC in partnership with Borough Council of King's Lynn and West Norfolk (BCKL&WN) with WSP providing support.

The TS focusses on the King's Lynn urban area, North Lynn, South Lynn, West Winch, Gaywood, North Wootton, South Wootton.

SEA

The SEA process is carried out during the preparation of certain plans and 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.

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), known as the SEA Regulations.

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

This Environmental Report presents the findings of the SEA for the Transport Strategy Update and will be presented alongside the TS for public consultation.

King's Lynn Transport Strategy

The TS sets out the vision, objectives and short, medium and long-term transport improvements required to support the existing community of King's Lynn and to assist in promoting economic growth in the area.

Vision and Objectives

The vision statement for the TS is as follows:

'To support sustainable economic growth in King's Lynn by facilitating journey reliability and improved travel mode choice for all, whilst contributing to improved health, air quality, safety and protection of the built and natural environment.'

The proposed objectives underpinning the vision for the TS are outlined below:

- Growth: Support the delivery of planned housing growth and development in the Borough.
- Connectivity: Enhance connectivity and accessibility for all within King's Lynn.
- Public transport: Promote greater use of public transport in King's Lynn.
- Active travel: Improve the active travel infrastructure to create the right conditions to make it first choice for shorter journeys.
- Environment: Improve local air quality and King's Lynn's natural environment and reduce overall transport emissions.
- Safety: Improve road safety in King's Lynn.
- Culture and heritage: Protect and enhance King's Lynn's heritage and cultural environment through place-making.

Policies and targets

The TS is a short, medium, and long-term strategy, comprised of 10 policies and eight accompanying targets. The policies are summarised below:

- Policy 1: Supporting growth and new development
- Policy 2: Strategic connections
- Policy 3: Parking
- Policy 4: Bus services
- Policy 5: Rail
- Policy 6: Active travel
- Policy 7: Climate change resilience
- Policy 8: Improved air quality
- Policy 9: Road traffic harm reduction
- Policy 10: Supporting culture, heritage and tourism

The TS's includes targets for the following categories:

- Growth
- Connectivity
- Public Transport
- Active Travel
- Environment
- Safety
- Culture and heritage

SEA Scope and Methodology

Preparation of the SEA Scoping Report is the first stage in the SEA process. The Scoping Report was available for review and comment by statutory consultees from February to March 2025.

Responses were received from all statutory consultees. With amendments made to the scoping information where necessary.

The updated baseline information can be found in the Final Scoping Report, presented in **Appendix B**, with the representations made by the consultees, and how WSP have responded, outlined in **Appendix C**.

SEA Framework

The baseline information and review of plans and programmes informed the identification of a number of key issues. These were then used to develop an SEA Framework of Objectives, which are outlined below:

- SEA1: To increase the inclusivity, capacity and connectivity of the transportation network to support future demographic changes for both rural and urban populations.
- SEA2: To protect and enhance both physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.
- SEA3: To provide greater connectivity across KL&WN to support key sectors, attract inward investment and support economic success.
- SEA4: To promote safe transport through reducing accidents, improving safety and reducing crime across the transport network.
- SEA5: To protect and enhance habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.
- SEA6: To protect and enhance townscapes, seascapes and landscapes of visual importance.
- SEA7: To protect and enhance the historic environment, including heritage assets (designated and non-designated) and their settings where this contributes to their significance, and/or allows their significance to be appreciated.

- SEA8: To reduce the risk and vulnerability to flooding.
- SEA9: To maintain and enhance water quality by reducing levels of pollution from the transport network.
- SEA10: To protect and enhance air quality by reducing emissions from the transport network.
- SEA11: Ensure that KL&WN and its transport infrastructure are resilient to the effects of climate change.
- SEA12: To reduce greenhouse gas emissions across the transport network, support national and local decarbonisation initiatives and incorporate climate change adaptation to help maximise resilience.
- SEA13: To reduce exposure to transport related noise and vibration, including noise pollution and nuisance.
- SEA14: To reduce the amount of waste produced and promote sustainable use of resources.
- SEA15: To ensure the efficient use of land.
- SEA16: To ensure that critical infrastructure is protected, enhanced and increased to meet the demands of the population now and in the future.

Methodology

Assessment of the Transport strategy and Reasonable Alternatives

The SEA process has sought to identify, describe and evaluate the significant effects of the TS and reasonable alternatives. This has been done by identifying the likely changes to the baseline conditions as a result of implementing the TS and the reasonable alternatives to it. In undertaking the appraisal, consideration has been given to:

- baseline information including key issues;
- the likely activities and potential sources of effects associated with the construction and operation of transport infrastructure;
- the regulatory framework;
- the SEA objectives and guide questions; and
- the definitions of significance.

The TS Policies reasonable alternatives have been assessed against the SEA objectives. The scoring system used in the appraisal and guidance on determining significant effects is summarised in **Table 3-2**. For each effect identified, a score has been given using the SEA framework.

Appraisal of Secondary, Cumulative and Synergistic Effects

The SEA Regulations require that secondary, cumulative and synergistic effects are considered as part of the SEA.

Through the appraisal of the TS, the methodology outlined earlier in this chapter, the intra-plan and inter-plan cumulative effects have been considered. This has been appraised on a

topic-by-topic basis to identify likely significant cumulative effects using an appraisal matrix and using the scoring system as outlined in **Table 3-2**.

Limitations and Assumptions

The following uncertainties have been noted when completing this Environmental Report:

- the precise location of new infrastructure is unknown at this stage.
- the timing and delivery of new infrastructure is unknown at this stage.
- the detailed design of any development and associated infrastructure is unknown.
- temporary negative effects associated with construction will be mitigated by best practice construction measures.
- future changes to the social, economic and environmental baseline beyond those outlined are difficult to predict in light of the length of the plan period and lifespan of development.
- WSP have endeavoured to predict effects accurately based on the evidence available; however, there are significant uncertainties given the high-level nature of the TS and its assessment. Given uncertainties there is inevitably a need to make some assumptions, however, these are explained where necessary within the assessment text.
- A proportionate and precautionary approach has been applied in the identification and evaluation of potential significant effects based on the level of information available and the presence of key sensitive receptors.

ASSESSMENT OF THE TRANSPORT STRATEGY

The TS is a short, medium, and long-term strategy, comprised of 10 Policies and seven Targets, summarised in **Section 2.3** of this report.

An assessment of the TS's Policies against the SEA framework was carried out, and the findings are summarised below, following the key for the assessment matrices. The full assessment of the TS is presented in **Appendix D**.

Table 1 - SEA Key and Guide for the Assessment

Symbol	Effect Significance	Description
++	Significant positive effect	The proposed measure/ action plan/ plan contributes significantly to the achievement of the objective.
+	Minor positive effect	The proposed measure/ action plan/ plan contributes to the achievement of the objective but not significantly.
-	Minor negative effect	The proposed measure/ action plan/ plan detracts from the achievement of the objective but not significantly.
--	Significant negative effect	The proposed measure/ action plan/ plan detracts significantly from the achievement of the objective.
?	Uncertain effect	The proposed measure/ action plan/ plan has an uncertain relationship to the objective or the relationship is dependent on the way in which the aspect is managed. In addition, insufficient information may be available to enable an appraisal to be made.
+/-	Minor positive and negative effect	The proposed measure/ action plan/ plan has the potential for both a minor positive and negative effect.
++/--	Significant positive and negative effect	The proposed measure/ action plan/ plan has the potential for both a significant positive and negative effect.
0	Neutral effect	The proposed measure/ action plan/ plan does not have any effect on the achievement of the objective



The table below summarises the findings from the assessment of the interactions/actions.
The full assessment can be found in **Appendix D**.

Table 2 - TS Assessment Summary

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 1: Supporting growth and new development	++	+	++/-	+	+/-	+/-	+/-	+/-	+/-	+	+/-	++/-/?
Policy 2: Strategic connections	++/-	0	+	++	+/-	+	+	+/-	+/-	+	+/-	+/-/?
Policy 3: Parking	+/-	+/-	++	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	++/-
Policy 4: Bus services	++	+	++	+	++	+/-	+/-	+	+/-	+/-	+/-	+/-
Policy 5: Rail	++	+	++	+	+/-	+/-	+/-	+/-	-	+	-	+
Policy 6: Active travel	+	++	+	++	+/-	+	+/-	+	+	++	+	+

SEA Objective	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy												
Policy 7: Climate change resilience	+	+ /-	+/-	+	+/-	+/-	+/-	+/-	+/-	++	+/-	++
Policy 8: Improved air quality	++	+	+	0	+	+	+	+	+	++	+	+
Policy 9: Road traffic harm reduction	++/-	++	+	++	+/-	+/-	-	+/-	+/-	+/-	+/-	+
Policy 10: Supporting culture, heritage and tourism	+	++	+	+	++/-	++/-	++/-	+/-	+/-	+/-	+/-	+

Cumulative Effects

Cumulative effects can arise when:

- Several individual policies and sites have a combined effect on an objective; or
- Several policies and sites have insignificant effects individually but when combined, lead to significant effects.

The significance of cumulative effects resulting from a range of activities, or multiple incidences of one activity, may vary based on factors such as the nature of the proposed sites and policies and the sensitivity of the receiving communities and environment.

Intra-plan Cumulative Effects

The SEA assessment of policies drew out potential intra-project cumulative effects. These have been identified in the table below.

Table 3 - Intra-plan Cumulative Effects Summary

SEA Objective	Effect significance
Population & Equalities	++/-
Human Health	++/-
Economy & Employment	++/-
Community Safety	++
Biodiversity & Natural Capital	+/-
Landscape & Townscape	++/-
Historic Environment	++/-
Water Environment	+/-
Air Quality	++/-
Climate Change & Greenhouse Gases	++/-
Noise	+/-
Material Assets	++/-

Inter-plan Cumulative Effects

This section presents the consideration of how the Policies and Targets within the TS may interact with proposals in other relevant plans, programmes and projects.

The table below outlines the likely significant effects of the identified plans, programmes and projects, in-combination with the TS, that have been identified against each of the SEA objectives.

Table 4 - Inter-plan Cumulative Effects Summary

SEA Objective	Effect significance
Population & Equalities	++/-
Human Health	++/-
Economy & Employment	++/-/?
Community Safety	++/-
Biodiversity & Natural Capital	+/--
Landscape & Townscape	+/-
Historic Environment	+/-
Water Environment	+/--
Air Quality	+/--
Climate Change & Greenhouse Gases	++/-
Noise	+/-
Material Assets	+/--

Assessment of Alternatives

The SEA Regulations require an assessment of the plan, and its reasonable alternatives. The assessment of the alternatives does not need to take into account all possible alternatives, only those that are realistic.

Identifying Alternatives

Reasonable alternatives have been provided at the Policy level, outlining alternative pathways to meet the objectives of the TS. These are outlined in the table below.

Table 5 – Proposed Alternatives for the TS

Policy	Proposed Alternative	Reasonable/Unreasonable
1	- To not work in partnership with other councils and instead act in isolation - To do nothing and accept what comes as part of the development process with the understanding that it may not fully meet the LTP objectives or objectives of overarching strategies	- Unreasonable - Reasonable
2	- To not actively seek to improve strategic connections - To do nothing and continue with a business as usual approach, with no purposeful improvements to strategic connections	- Unreasonable - Reasonable
3	- To focus only on public transport/active travel - To focus only on private vehicles	- Reasonable - Reasonable
4	To do nothing and continue with a business as usual approach, with no involvement from NCC in bus services	Reasonable
5	To do nothing and continue with a business as usual approach, with no involvement from NCC in rail services	Reasonable
6	To do nothing and continue with a business as usual approach for active travel	Unreasonable
7	To take a business as usual approach with no policy specifically for King's Lynn, responding only when damage has occurred due to climate change and severe weather events	Reasonable

Policy	Proposed Alternative	Reasonable/Unreasonable
8	■ To do nothing and continue with a business as usual approach whereby emissions are likely to be reduced by technological advances and the market ■ To not work in partnership with other councils and instead act in isolation	■ Reasonable ■ Unreasonable
9	To do nothing and only react to new data or accidents	Unreasonable
10	To continue with a business as usual approach by fulfilling the statutory role to not damage structures and not actively seek to enhance culture, heritage or tourism in King's Lynn	Reasonable

Alternatives considered unreasonable were screened out at this point, and those considered reasonable were taken forward for assessment through the SEA process, alongside the TS Policies.

The below table summarises the findings from the assessment of the reasonable alternatives. The full assessment can be found in **Appendix D**.

Table 6 - Assessment of Reasonable Alternatives summary

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 1: Supporting growth and new development	+/-	+/-/?	-	+	+/-	+/-	-	+/-	+/-	+/-	+/-	++/-/?
Policy 2: Strategic connections	0	0	+	0	0	0	0	0	0	+/-	0	0
Policy 3: Parking	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-/?
Policy 4: Bus services	+	0	+	+	+	+/-	+/-	+	+/-	+/-	+/-	0
Policy 5: Rail	0	0	0	0	0	0	0	0	0	0	0	0
Policy 6: Active travel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 7: Climate change resilience	+	+	0	0	0	0	0	0	+/-	+	+/-	0
Policy 8: Improved air quality	+	+	0	0	+	+	+	+	+	+	0	0
Policy 9: Road traffic harm reduction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Policy 10: Supporting culture, heritage and tourism	+	+	0	0	+/-	+/-	+/-	0	0	0	0	0

Outline Reasons for Selection or Rejection of Alternatives

For the ten policies contained within the TS, reasonable alternative policies have been identified where possible and assessed under the SEA Framework. For policies 6 and 9, the suggested alternatives were not considered reasonable and therefore have not been assessed under the SEA Framework.

Many of the reasonable alternatives propose a 'business as usual' approach, with no implementation or improvement of transport measures and are therefore unlikely to yield the same results. A number of minor positive, minor negative, uncertain, and neutral effects have been identified, alongside a small number of significant negative effects.

Where positive effects or outcomes have been identified for the reasonable alternatives, it is likely to be realised at a lesser scale than with the transport strategy, and they have therefore not been selected.

Mitigation and Monitoring

Mitigation

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.

Mitigation measures include both proactive avoidance of adverse effects and actions taken after potential effects are identified.

It is likely that potential significant negative effects can be avoided or reduced through adherence to best design guidance, appropriate planning and best construction practice at project level. It is expected that best design and industry practice, and relevant legislative requirements will be considered from the outset and throughout development of interventions.

The mitigation measures proposed in the table below are designed to avoid or reduce the effects identified as potentially negative through the assessment of the TS policies against the SEA Objectives. The table also includes enhancement measures, that aim to optimise positive impacts and enhance sustainability.

At this stage, measures are subject to change as the TS is refined and updated. It is likely that significant negative effects can be avoided or reduced through development of the Policies.

Table 7 – Proposed Mitigation Measures

SEA Objective	Mitigation/Enhancement Measure	Mechanism
Biodiversity & Natural Capital	■ In line with mandatory BNG requirements, transport interventions must implement biodiversity net gain and make use of the natural capital approach to ensure environmental net gain ■ Infrastructure schemes should incorporate design measures to lessen the impact on biodiversity and ensure biodiversity net gain. ■ Consideration needs to be given to the potential effects of construction of developments (noise, vibration and air pollution) on biodiversity. ■ Interventions should aim to minimise soil disturbance and to retain as many ecosystem services as possible through careful soil management during the construction process. ■ Interventions should consider impacts on international, national and local important sites (including sites such as SACs, National Landscapes, National Parks, SSSIs and Ramsar sites). This includes the potential impacts of noise, air and light pollution.	Project level design and assessment
Air Quality	■ Consideration needs to be given to the potential effects of construction of developments (noise, vibration and air pollution) ■ Interventions should consider impacts on Air Quality Management Areas. ■ Infrastructure schemes should incorporate design measures to lessen the impact on air quality.	Project level design and assessment

SEA Objective	Mitigation/Enhancement Measure	Mechanism
Material Assets	- Any form of construction and operation should be undertaken as sustainably as possible, making use of tools and processes, such as circular economy, waste hierarchy and should consider BREEAM and BREEAM Infrastructure. - Consideration at all stages should be given to the waste hierarchy, for example, prioritising reuse and recycling and reducing use of virgin materials - Sustainable design and construction techniques should be promoted, such as low energy lighting and opportunities for renewable energy regeneration. - All interventions should consider climate change resilience and adaptation from early design. - Where land take is required, preference should be given to brownfield land/ previously developed land and avoidance of the best and valuable land	Project level design and assessment

Monitoring

The SEA Regulations require the significant environmental effects of plans and programmes to be monitored, in order to identify unforeseen negative effects.

The table below sets out proposed monitoring measures. As there is some uncertainty with some of the elements of TS, the monitoring measures may be updated to reflect any additional impacts.

Table 8 – Proposed Monitoring Measures

SEA Objective	Key Performance Indicators	Targets
Population and Equalities	Improving accessibility and inclusivity of the transport network	Increase the number of users of all stated routes, by sustainable transport and active travel.

SEA Objective	Key Performance Indicators	Targets
Human Health	Enabling healthy behaviours and improving wellbeing by monitoring physical activity levels Utilisation of transport route to essential services and green space/green infrastructure, and the network of footpaths in the rural part of the county.	Increase the number of users of active travel infrastructure across the region.
Economy & Employment	Condition of local highways. Reliability of the transport network.	DfT road conditions data. Reducing number of delays and improving punctuality of public transport.
Community Safety	Improving transport safety and security.	A decrease in reported accidents associated with roads and the wider transport network. A 33% reduction in KSIs from current levels.
Biodiversity & Natural Capital	Biodiversity net gain achieved through implementation of the plan. Condition of designated sites e.g. SSSI's, SAC's, SPA's, etc.	No deterioration, or loss of coverage, of designated habitats and safeguarded areas to contribute towards 2030 UK biodiversity targets.
Landscape and Townscape	Area of landscapes and townscapes benefiting from conservation and enhancement measures resulting from plan interventions.	No loss or damage to the Norfolk Coast National Landscape or National Character Areas due to interventions.

SEA Objective	Key Performance Indicators	Targets
Historic Environment	The number of historic assets (statutory and non-statutory) negatively affected by the interventions. The number of historic assets (statutory and non-statutory) benefitting from conservation and enhancement measures resulting from plan interventions. The number of visitors to historic assets.	No historic assets negatively affected by the interventions. Increased number of visitors to the historic environment.
Water Environment	Condition of designated and undesignated waterbodies.	No deterioration of water quality in local waterbodies.
Air Quality	Increase use of zero and low emission vehicles. Tackling climate change and protecting and enhancing the natural and built environment - Clean Air Number of locations that exceed legal NOx limit - Air Quality annual monitoring reports	Reducing carbon emissions from transport and investing in EV infrastructure. No locations exceeding the NOx legal limit.
Climate Change & Greenhouse Gases	Carbon emissions from transport. Number of publicly available EV charge points.	For all relevant interventions to incorporate suitable climate change resilience and mitigation measures. To increase publicly available EV charging infrastructure.
Noise	Local noise monitoring.	Not exceeding permitted noise levels and no addition of new Noise Important Areas.

SEA Objective	Key Performance Indicators	Targets
Material Assets	Utilisation of circular economy principles to reduce the amount of additional waste during construction.	Utilisation and uptake of recycled/re-used materials where possible. Maximising use of brownfield land.

Next Steps

This Environmental Report is presented for public consultation alongside the Draft TS. The representations received will be documented and considered in reviewing the proposals for the TS. Following this, a Post Adoption Statement will be produced that summarises how the SEA and the consultation responses have been taken into account and how social, economic and environmental considerations have been integrated into the final decisions regarding the TS and will be issued as soon as is reasonably practicable after adoption.

This SEA Report will be issued to consultees for consultation alongside the draft TS between 24th September and 5th November.

A table setting out the TS and SEA programme is included in **Section 7**.

1 INTRODUCTION

1.1 Overview

WSP has been commissioned to undertake a Strategic Environmental Assessment (SEA) in support of the King's Lynn's Transport Strategy (the "TS" hereafter), located within the administrative boundary of Borough Council of King's Lynn and West Norfolk (BCKL&WN). The requirement for SEA arises through the Environmental Assessment of Plans and Programmes Regulations 2004¹ (hereafter referred to as the 'SEA Regulations'). SEA is a systematic process carried to ensure that environmental issues are fully integrated and addressed through the development of a plan.

1.2 Background to the Transport Strategy Update

The TS sits below the Norfolk Local Transport Plan, which describes Norfolk County Council's (NCC) strategy and policy framework for transport, and is used to guide investment and aid in determining planning and delivery decisions. This TS replaces the previous Transport Strategy, adopted in spring 2020. The updates TS reflects changes in national and local transport policy since 2020, including the impacts of the Covid-19 pandemic, and the development of the King's Lynn Local Cycling and Walking Infrastructure Plan (LCWIP).

This TS and its Implementation Plan have been developed by NCC in partnership with BCKL&WN and other stakeholders. WSP have provided technical support throughout the development of the TS.

The TS focusses on the King's Lynn urban area, North Lynn, South Lynn, West Winch, Gaywood, North Wootton, South Wootton.

1.3 SEA process

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

SEA is used to describe the application of environmental assessment to plans and programmes in accordance with the 'Environmental Assessment of Plans and Programmes

¹ SI 2004 No. 1633, The Environmental Assessment of Plans and Programmes Regulations, 2004. Available online at: http://www.legislation.gov.uk/ukxi/2004/1633/pdfs/ukxi_20041633_en.pdf

Regulations' (SI 2004/1633, known as the SEA Regulations)². Throughout the course of the development of the plan, policy or programme, the aim of SEA is to promote sustainable development by identifying the potential impact of options proposed in the plan, in terms of their environmental, economic, and social effects. If any adverse effects are identified, these options can then be avoided, or proposals modified to manage or mitigate adverse effects.

SEA is mandatory for plans and programmes prepared for agriculture, forestry, fisheries, energy, industry, transport, waste or water management, telecommunications, tourism, town and country planning or land use, that set the framework for future development consent of projects listed in the Town and Country Planning (Environmental Impact Assessment) Regulations³.

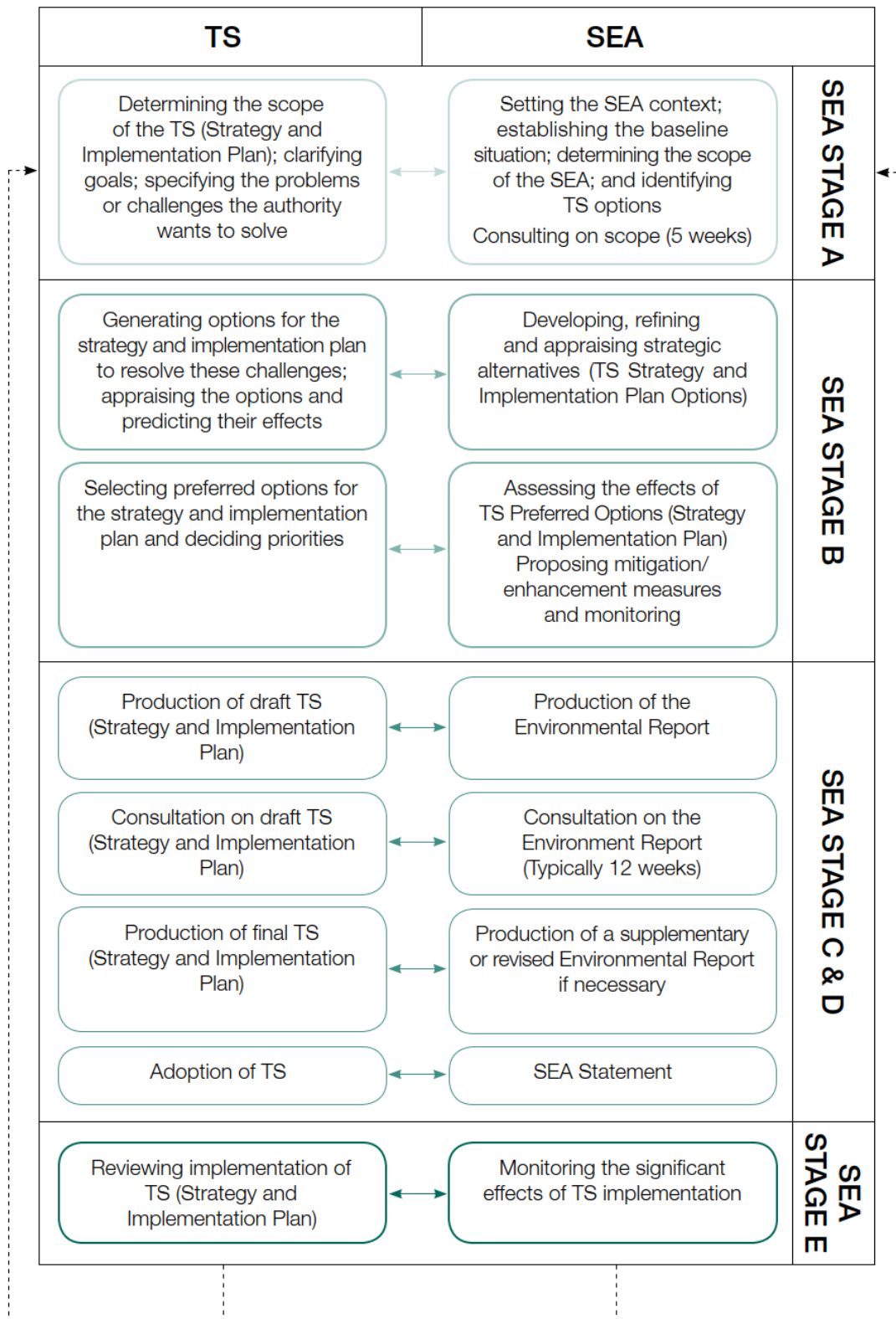
The integration of the SEA with the TS process is shown in **Figure 1-1**. This Report represents Stages B and C of the SEA.

² SI 2004 No. 1633, The Environmental Assessment of Plans and Programmes Regulations, 2004. Available online at: http://www.legislation.gov.uk/uksi/2004/1633/pdfs/uksi_20041633_en.pdf

³ UK Government, The Town and Country Planning (Environmental Impact Assessment) Regulations, 2017. Available online at: [The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017 \(legislation.gov.uk\)](http://www.legislation.gov.uk/uksi/2017/1261/pdfs/uksi_20171261_en.pdf)

Figure 1-1 - SEA and TS Stages

Summary of the TS and SEA Processes



1.4 Purpose of this report

This Environmental Report presents the findings of the SEA for the Transport Strategy Update and will be presented alongside the Transport Strategy (TS) for public consultation. The purposes of the SEA and this Environmental Report are:

- to identify, describe and evaluate the likely significant environmental and socio-economic effects of the TS and any reasonable alternatives.
- to help identify appropriate measures to avoid, reduce or mitigate adverse effects and to enhance beneficial effects associated with the implementation of the TS wherever possible.
- to provide a framework for monitoring the potential significant adverse environmental effects arising from the implementation of the TS.
- to inform decisions on the TS.
- to demonstrate that the TS has been developed in a manner consistent with the requirements of the SEA Regulations.

1.5 Environmental report structure

This Environmental Report is structured as follows:

- **Non-Technical Summary** - Provides a summary of the Environmental Report, including information on both the TS and the key findings of the assessment.
- **Section 1: Introduction** - Provides an overview of the TS, SEA process and the purpose of this report.
- **Section 2: King's Lynn Transport Strategy** - Describes the purpose and scope of the TS and provides an overview of its structure and contents.
- **Section 3: SEA Scope and Methodology** - Provides an overview of the scope of the SEA and outlines the approach to the appraisal of the TS and reasonable alternatives including the appraisal framework (which comprises SEA objectives and guide questions).
- **Section 4: Assessment of the Transport Strategy** - Summarises the likely significant effects of the TS, including cumulative effects for the TS as a whole, and with other plans, programmes and projects.
- **Section 5: Assessment of Alternatives** - Sets out the reasonable alternatives and presents the assessment findings.
- **Section 6: Mitigation and Monitoring** - Sets out proposed mitigation and monitoring measures for the TS.
- **Section 7: Next Steps** - Sets out the next steps for the SEA process.

2 KING'S LYNN TRANSPORT STRATEGY

2.1 Introduction

The TS sets out the vision, objectives and short, medium and long-term transport improvements required to support the existing community of King's Lynn and to assist in promoting economic growth in the area.

The TS includes a range of strategic and local highway capacity improvement schemes alongside improvement schemes that could address issues with reliability on the existing bus network. These sit alongside the potential to make further improvements to the existing cycling and walking network to further support the already high mode share for journey to work for these active modes of travel.

2.2 Vision and Objectives

The vision statement for the TS is as follows:

'To support sustainable economic growth in King's Lynn by facilitating journey reliability and improved travel mode choice for all, whilst contributing to improved health, air quality, safety and protection of the built and natural environment.'

The proposed objectives underpinning the vision for this TS are outlined below:

- **Growth:** Support the delivery of planned housing growth and development in the Borough.
- **Connectivity:** Enhance connectivity and accessibility for all within King's Lynn.
- **Public transport:** Promote greater use of public transport in King's Lynn.
- **Active travel:** Improve the active travel infrastructure to create the right conditions to make it first choice for shorter journeys.
- **Environment:** Improve local air quality and King's Lynn's natural environment and reduce overall transport emissions.
- **Safety:** Improve road safety in King's Lynn.
- **Culture and heritage:** Protect and enhance King's Lynn's heritage and cultural environment through place-making.

2.3 Structure and Content

The TS is a short, medium, and long-term strategy, comprised of 10 policies and seven accompanying targets. The policies are summarised below:

- **Policy 1: Supporting Growth and New Development.** Norfolk County Council will work in partnership, including with developers, to ensure transport measures, including sustainable transport options, support new housing developments and employment sites.
- **Policy 2: Strategic Connections.** Norfolk County Council, working in partnership, seek to improve strategic connections between King's Lynn, the port, the surrounding villages, Norwich, Norfolk and the wider region. Improvements to strategic connections including

the A47, A149 and key roundabouts like the A17/A47 Pullover junction, the town centre gyratory as well as rail and bus connections will be sought.

- **Policy 3: Parking.** Norfolk County Council will work with the BCKL&WN to deliver the Parking Strategy that balances the needs of the town with supporting the promotion of public transport and active travel. We will seek improvements that acknowledge the importance of the NCC Electric Vehicles (EVs) Strategy with regards to EV parking provision.
- **Policy 4: Bus Services.** Norfolk County Council will support bus operators to deliver quicker, reliable, integrated, convenient and accessible journeys.
- **Policy 5: Rail.** Norfolk County Council will work with stakeholders to make improvements to King's Lynn Railway Station as set out in the Norfolk Rail Prospectus. We will seek improvements to the line for both the passengers and freight. This will include aiming to make them more reliable, accessible, integrated and provide faster more frequent journeys.
- **Policy 6: Active Travel.** Norfolk County Council will support and promote the use and benefits of active and sustainable modes of travel, including supporting schemes in the King's Lynn Local Cycling and Walking Infrastructure Plans to reduce dependency on cars.
- **Policy 7: Climate Change Resilience.** Norfolk County Council, working with stakeholders and partners, will contribute to making the transport network zero emission by 2050 and resilient to the impacts of severe weather and climate change.
- **Policy 8: Improved Air Quality.** Norfolk County Council, working with partners, will seek to reduce emissions from vehicles to improve air quality. Measures may include retrofitting vehicles with equipment to reduce emissions and promoting transport electrification.
- **Policy 9: Road Traffic Harm Reduction.** Norfolk County Council, working with partners, will endeavour to reduce road traffic collisions and casualty numbers through the safe systems approach. Improvement schemes will aim to address the fear of road traffic affecting vulnerable road users.
- **Policy 10: Supporting Culture, Heritage and Tourism.** Norfolk County Council, working with partners, where possible will seek to protect existing green infrastructure and enhance the public realm for the benefit of residents, visitors and tourists using a healthy streets approach to make streets attractive and work for all users of the network.

The TS's targets are as follows:

- **Growth:** Secure transport network improvements as part of new housing and employment sites
- **Connectivity:** Secure future improvements to the Strategic Road and Rail Network and at key gateway junctions
- **Public transport:** Grow annual bus and rail patronage
- **Active travel:** Increase in the number of people walking, wheeling and cycling as monitored as part of the King's Lynn Local Cycling and Walking Infrastructure Plan

- **Environment:** Reduce the current number of, and ensure no new, Air Quality Management Areas (AQMA's)
- **Safety:** Reduce collision numbers from current levels
- **Culture and heritage:** Number of transport projects with heritage considered as part of delivery.

Norfolk County Council have also set out actions to support the Objectives, Policies and Targets of the TS, these are as follows:

- Work with King's Lynn and West Norfolk Borough Council, Department for Transport, National Highways and Transport East to campaign for further investment.
- Work with partners to develop local strategic transport projects in the Norfolk Strategic Infrastructure Delivery Plan,⁴ which sets out Norfolk County Council, and partners' priority projects every year. This promotes projects that will provide significant economic, housing, and jobs growth across Norfolk
- Plan accessibility as part of service delivery, considering how people will be able to access facilities and key services during the planning stage, making them suitable for all users including people with disabilities or restricted mobility
- Make the case for investment in the Strategic Road Network (A47) as part of the A47 Alliance, a group of organisations that campaign for Government to invest money into A47 improvements from Peterborough to Lowestoft. Although Norfolk County Council does not manage or maintain the A47, it seeks improvements, seeking quick, reliable journey times for longer-distance journeys where there is the highest need.

⁴ Norfolk County Council, South Norfolk Council, Great Yarmouth Borough Council, Norwich City Council, North Norfolk District Council, Borough Council of King's Lynn & West Norfolk (2024) Norfolk Strategic Infrastructure Delivery Plan 2023/24. Available at: [Norfolk Strategic Infrastructure Delivery Plan 2023/24](#) [Accessed June 2025]

3 SEA SCOPE AND METHODOLOGY

3.1 Introduction

Preparation of the SEA Scoping Report is the first stage in the SEA process, identifying issues, objectives and a framework for assessment of the likely effects of the TS. The Scoping Report was available for review and comment by statutory consultees (the Environment Agency, Historic England and Natural England) from February to March 2025.

Responses were received from all statutory consultees. The comments from Historic England were taken into account and amendments made to the scoping information where necessary. Natural England and the Environment Agency had no specific comments relating to material presented in the Scoping Report, therefore no amendments were required.

The updated baseline information can be found in the Final Scoping Report, presented in **Appendix B**, with the representations made by the consultees, and how WSP have responded, outlined in **Appendix C**.

3.2 SEA Framework

The baseline information and review of plans and programmes informed the identification of a number of key issues (see **Appendix B**). These were then used to develop an SEA Framework of Objectives, which are presented in **Table 3-1** below.



Table 3-1 – SEA Appraisal Framework

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
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Population & Equalities	■ Transport issues affect different groups to varying extents, and there is evidence showing that the barriers to accessing and using transport can be exacerbated by age, ethnicity and gender. ■ The rural nature of large parts of KL&WN could pose significant challenges in providing good services for all residents. There will, therefore, be a need for increased access to transport. ■ The population of KL&WN is predicted to increase in number resulting in a change in the age profile. ■ Changing work habits such as remote, internet-based jobs and working from home are likely to reduce transport demand, but may also increase social isolation, which could increase reliance on alternative social interaction. ■ With an increasing ageing population in KL&WN, there is likely to be additional strain on the area's services and infrastructure; this is likely to be	SEA1: To increase the inclusivity, capacity and connectivity of the transportation network to support future demographic changes for both rural and urban populations.	Will the TS: ■ Help to reduce inequalities, particularly for those people and communities most vulnerable? ■ Improve access to services, facilities and transport for all inclusively (including disabilities, hidden disabilities, dementia, and autism)? ■ Proportionately support both rural and urban communities ■ Support diversity? ■ Support population growth?
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SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
	exacerbated with a higher-than-average number of people living in rural areas. ■ The change in working habits has also affected traditional 5/2-day shift patterns for public transport with one in 10 local bus services in the UK cancelled in 2022.⁵		

⁵ [The Guardian \(2023\) Almost one in 10 local bus services axed over last year in Great Britain](#)

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Human Health	■ The population of the area is ageing; older people may not have access to appropriate forms of private transport to access healthcare, community, and social care facilities. ■ There are high levels of physical inactivity and obesity across KL&WN. ■ Social isolation can lead to loneliness which has the potential to undermine well-being thereby impacting negatively on people's quality of life. ■ There are higher levels of loneliness in rural areas than urban areas. ■ Addressing poor air quality within KL&WN should be an important element of the strategy and action plan.	SEA2: 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 TS: ■ Promote healthier lifestyles? ■ Increase walking and cycling? ■ Promote health enhancing environments, behaviours and activities for local communities? ■ Help prevent risks to human health, which arise from noise and air pollution? ■ Help prevent social isolation in both the rural and urban setting?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Economy & Employment	■ If employment remains more concentrated in urban centres, this could put increased pressure on transport systems as commuting distances increase. ■ The working age population is lower than the average. ■ Retirement is one of the main factors contributing to economic inactivity in the borough. ■ There is a low density of jobs within KL&WN compared to regional and national averages.	SEA3: To provide greater connectivity across KL&WN to support key sectors, attract inward investment and support economic success.	Will the TS: ■ Support economic growth? ■ Support access to jobs and training opportunities? ■ Improve access to employment centres? ■ Support regeneration of town and district centres? ■ Support the tourism industry?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Community Safety	- Crime on public transport in the UK is on the rise, particularly with regards to sexual assault, violent crimes and disruption. - As the population within KL&WN increases there are expected to be a greater number of vehicles on the borough's roads, which may result in an increase in the number of accidents and those KSI on roads. - Children in the most deprived neighbourhoods are nearly three times more likely to be KSI as a pedestrian compared to non-deprived neighbourhoods.⁶ - There are opportunities to increase the safety of active transport modes such as cycling and walking. - Vulnerable road users such as cyclist and pedestrians are more likely to be casualties. In KL&WN, males aged 17 to 29 years old are also more likely to be casualties.	SEA4: To promote safe transport through reducing accidents, improving safety and reducing crime across the transport network.	Will the TS: - Improve safety? - Ensure that residents feel safe, particularly after dark? - Support designing out crime principals? - Reduce levels of crime deprivation? - Improve road safety and reduce the number of people KSI on the roads, particularly children from deprived backgrounds?

⁶ [Centre for Transport Studies, Road Safety Research Briefing 1: Children and Traffic: Those in deprived areas still at disproportionate risk](#)

Biodiversity & Natural Capital	■ There are a wide range of statutory local, national and international sites designated for nature conservation across KL&WN, 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. ■ UK Government objectives aim to halt biodiversity loss by 2030,	SEA5: To protect and enhance habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	■ Will the TS: ■ Cause damage to locally and nationally designated sites though infrastructure provision, traffic or maintenance? ■ Maintain and enhance biodiversity in the borough? ■ Seek opportunities for at least 10% biodiversity net gain through green infrastructure? ■ Increase provision of ecosystem services from the borough's natural capital? ■ Prevent fragmentation of habitats and promote ecological networks? ■ Result in developments which will improve biodiversity on site? ■ Support UK Government biodiversity objectives, including halting biodiversity loss, improve species abundance and protect the land and sea?
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SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
	and then increase abundance by at least 10% to exceed 2022 levels by 2042 and to protect 30% of our land and sea also by 2030.		

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Landscape, Seascape & 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. - Future growth in some locations could risk compromising landscape, seascape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and physical and mental health of its people. Climate change will also put pressure on the landscape and seascape designations as new pests and diseases emerge sea levels rise and extreme weather increasing the stresses on nature conservation.	SEA6: To protect and enhance townscapes, seascapes and landscapes of visual importance.	Will the TS: - Respect, maintain and strengthen local character and distinctiveness? - Improve the quality and condition of the townscape and landscape? - Incorporate green infrastructure into design? - Protect and enhance the special character of designated National Landscapes?

Historic Environment	■ There is potential for development to encroach on assets, particularly affecting the settings of assets through increased noise and visual effects. ■ New and/or upgraded transport infrastructure in the vicinity of designated heritage assets such as scheduled monuments can have an impact on their setting. ■ Highly significant archaeological remains, whether designated or not, normally require preservation in situ. This clearly has implications and can represent a significant constraint to future scheme design, which should respect, retain and protect the remains (e.g. through avoidance and redesign). ■ Vehicle damage and pollution can adversely affect both listed buildings and scheduled monuments, so reducing vehicle movements within historic urban areas is also an important area to address.	SEA7: To protect and enhance the historic environment, including heritage assets (designated and non-designated) and their settings where this contributes to their significance, and/or allows their significance to be appreciated.	Will the TS: ■ Conserve and/or enhance heritage assets, their setting and the wider historic environment? ■ Improve the quality and condition of the historic environment? ■ Respect, maintain and strengthen local character and distinctiveness? ■ Result in the loss of buried and unknown historic assets and artifacts? ■ Protect, enhance and manage the character and appearance of historic landscapes/seascapes/townscapes, maintaining local character, distinctiveness and sense of place? ■ Achieve high quality sustainable design for buildings, spaces and the public realm?
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SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
	The character of KL&WN's historic landscapes and townscapes can be eroded by the construction and operation of transport infrastructure.		

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 39 water bodies, just 10% are achieving 'good' status, falling far short of the Water Framework Directive (WFD) Regulations target. ■ Climate change is likely to increase the occurrence of flooding from all sources and hence raise the flood risk in KL&WN. ■ Increased development (including transport infrastructure) can increase flood risk on a local and catchment scale. ■ There are significant competing demands on scarce water resources, with the needs of	SEA8: To reduce the risk and vulnerability to flooding. SEA9: To maintain and enhance water quality by reducing levels of pollution from the transport network.	Will the TS: ■ Reduce the risk of flooding? ■ Increase surface runoff? ■ Result in the reduction of water quality? ■ Support the protection and enhancement of water bodies?
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SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
	different users having to be traded-off against each other. ■ Upgrading existing infrastructure provides the opportunity to improve pollution control, include the reduction of litter.		

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Air Quality	■ The number of vehicles on the roads is likely to increase as the population rises, putting air quality and AQMAs at further risk of degradation. ■ More severe and frequent heat episodes as a result of climate change can contribute to the worsening of air quality. ■ Whilst electric cars should have positive effects for air quality in terms of NO2 reductions, there is concern that EVs, which are currently heavier than 'conventional' vehicles, may generate more particulate (PM10) pollution from brake and tyre wear. ■ Air quality issues across KL&WN 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.	SEA10: To protect and enhance air quality by reducing emissions from the transport network.	Will the TS: ■ Support measures to reduce levels of air pollution? ■ Support measures for the reduction of congestion and traffic levels particularly in AQMAs and congestion hot spots?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Climate Change & Greenhouse Gases	- Transport is the largest contributor to greenhouse gas emissions in the UK, with the largest contributor being domestic transport. - There is a need to ensure climate resilience of the transport infrastructure in KL&WN. The extent of future climate change will be strongly affected by the amount of greenhouse gases that the population chooses to emit. - In rural areas of KL&WN, particularly, where there are limited local facilities and fewer public transport services, many people are reliant on private transport which contributes to greenhouse gas emissions.	SEA11: Ensure that KL&WN and its transport infrastructure are resilient to the effects of climate change. SEA12: To reduce greenhouse gas emissions across the transport network, support national and local decarbonisation initiatives and incorporate climate change adaptation to help maximise resilience.	Will the TS: - Support low carbon and energy efficient design? - Increase the resilience of transport infrastructure to the impacts of climate change (including flood risk, extreme weather, heat and cold)? - Support the councils' Net Zero ambitions by 2030 and 2040? - Support low carbon, energy efficient design? - Reduce levels of embodied carbon?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Noise	- 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 National Landscapes, and other designated sites with road or rail noise reducing amenity within these areas.	SEA13: To reduce exposure to transport related noise and vibration, including noise pollution and nuisance.	Will the TS: - Support measures to reduce levels of noise pollution? - Support measures for the reduction of congestion and traffic levels particularly in areas with sensitive noise receptors?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Material Assets	- It is important that any future development of the transport network across KL&WN does not have adverse impacts or lead to 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 continued increase in renewable energy supplies across the borough, of which needs to be managed efficiently to ensure the capacity requirements of this transition are met.	SEA14: To reduce the amount of waste produced and promote sustainable use of resources. SEA15: To ensure the efficient use of land. SEA16: To ensure that critical infrastructure is protected, enhanced and increased to meet the demands of the population now and in the future.	Will the TS: - Support the use of sustainable materials? - Support the reuse of existing infrastructure? - Promote a circular economy? - Minimise the amount of waste? - Support the use of brownfield land? - Protect and enhance land quality? - Result in the loss of agricultural land? - Ensure that critical infrastructure is resilient to the effects of climate change?



3.3 Assessment methodology

In line with legislative requirements, the SEA process has sought to identify, describe and evaluate the significant effects of the TS and reasonable alternatives. This has been done by identifying the likely changes to the baseline conditions as a result of implementing the TS and the reasonable alternatives to it. These changes are described (where possible) in terms of scale, the timescale over which they could occur, whether the effects would be temporary or permanent, positive or negative, likely or unlikely, frequent or rare. Where numerical information was not available, the appraisal has been based on professional judgement and with reference to relevant legislation, regulations and policy. More specifically, in undertaking the appraisal, consideration has been given to:

- baseline information including key issues.
- the likely activities and potential sources of effects associated with the construction and operation of transport infrastructure.
- the regulatory framework.
- the SEA objectives and guide questions (see **Table 3-1**).
- the definitions of significance (see **Table 3-2**).

The 10 Policies and their reasonable alternatives have been assessed against the SEA objectives on a topic-by-topic basis to identify likely significant environmental, social and economic effects using an appraisal matrix.

In line with the SEA Regulations, the SEA must detail which of the identified effects are likely to be significant (whether this is significantly positive or negative). The scoring system used in the appraisal and guidance on determining significant effects is summarised in **Table 3-2** below.

Table 3-2 – SEA Key and Guide for the Assessment

Symbol	Effect Significance	Description
++	Significant positive effect	The proposed measure/ action plan/ plan contributes significantly to the achievement of the objective.
+	Minor positive effect	The proposed measure/ action plan/ plan contributes to the achievement of the objective but not significantly.
-	Minor negative effect	The proposed measure/ action plan/ plan detracts from the achievement of the objective but not significantly.

Symbol	Effect Significance	Description
--	Significant negative effect	The proposed measure/ action plan/ plan detracts significantly from the achievement of the objective.
?	Uncertain effect	The proposed measure/ action plan/ plan has an uncertain relationship to the objective or the relationship is dependent on the way in which the aspect is managed. In addition, insufficient information may be available to enable an appraisal to be made.
+/-	Minor positive and negative effect	The proposed measure/ action plan/ plan has the potential for both a minor positive and negative effect.
++/--	Significant positive and negative effect	The proposed measure/ action plan/ plan has the potential for both a significant positive and negative effect.
0	Neutral effect	The proposed measure/ action plan/ plan does not have any effect on the achievement of the objective

For each effect identified, a score has been given using the framework set out in **Table 3-1** and **Table 3-2**. This assessment process has been undertaken using expert judgement after a review of the evidence available. All evidence/ assumptions that have been used to make these judgements have been documented.

3.4 Appraisal of Secondary, Cumulative and Synergistic Effects

The SEA Regulations require that secondary, cumulative and synergistic effects are considered as part of the SEA. These are defined as follows (These terms are not mutually exclusive, often the term cumulative effects is taken to include secondary and synergistic):

- **Secondary (or indirect):** Effects that do not occur as a direct result of the TS's implementation but occur at distance from the direct impacts or as a result of a complex pathway.
- **Cumulative:** Effects that occur where several individual activities which each may have an insignificant effect, combine to have a significant effect. Examples of a cumulative effect resulting from the implementation of the TS could include potential effects on a National Sites Network Sites where a habitat or species is vulnerable and the cumulative effects of disturbance and pollutant emissions arising from development and operation causes a significant impact. Cumulative effects will also include the potential effects (if

any) of a proposed plan or activity under the plan and any other proposed plan and/or consented developments.

- **Synergistic:** Effects that interact to produce a total effect that is greater than the sum of the individual effects.

Through the appraisal of the TS, the methodology outlined earlier in this section, the cumulative effects of the TS as a whole (intra-plan) and in-combination with other plans and programmes (inter-plan) have been considered. This has been appraised on a topic-by-topic basis to identify likely significant cumulative effects using an appraisal matrix and using the scoring system as outlined in **Table 3-2**.

3.5 Limitations and assumptions

The following uncertainties have been noted when completing this Environmental Report and could then become material to the subsequent appraisal:

- The precise location of new development and infrastructure is unknown at this stage.
- the timing and delivery of new infrastructure is unknown at this stage.
- the detailed design of any development and associated infrastructure is unknown.
- temporary negative effects associated with construction will be mitigated by best practice construction measures.
- future changes to the social, economic and environmental baseline beyond those outlined are difficult to predict in light of the length of the plan period and lifespan of development.
- WSP have endeavoured to predict effects accurately based on the evidence available; however, there are significant uncertainties given the high-level nature of the TS and its assessment. Given uncertainties there is inevitably a need to make some assumptions, however, these are explained where necessary within the assessment text.
- A proportionate and precautionary approach has been applied in the identification and evaluation of potential significant effects based on the level of information available and the presence of key sensitive receptors

4 ASSESSMENT OF THE TRANSPORT STRATEGY

4.1 Introduction

The TS is a short, medium, and long-term strategy, comprised of 10 Policies and seven Targets, summarised in **Section 2.3** of this report.

An assessment of the TS's 10 Policies against the SEA framework was carried out, and the findings are summarised below. The full assessment of the TS is presented in **Appendix D**.

4.2 Assessment of the Transport strategy

Table 4-1 summarises the findings from the assessment of the interactions/actions. The full assessment can be found in **Appendix D**.

Table 4-1 – TS Assessment Summary

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 1: Supporting growth and new development	++	+	++/-	+	+/-	+/-	+/-	+/-	+/-	+	+/-	++/-/?
Policy 2: Strategic connections	++/-	0	+	++	+/-	+	+	+/-	+/-	+	+/-	+/-/?
Policy 3: Parking	+/-	+/-	++	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	++/-
Policy 4: Bus services	++	+	++	+	++	+/-	+/-	+	+/-	+/-	+/-	+/-
Policy 5: Rail	++	+	++	+	+/-	+/-	+/-	+/-	-	+	-	+
Policy 6: Active travel	+	++	+	++	+/-	+	+/-	+	+	++	+	+

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 7: Climate change resilience	+	+ /-	+/-	+	+/-	+/-	+/-	+/-	+/-	++	+/-	++
Policy 8: Improved air quality	++	+	+	0	+	+	+	+	+	++	+	+
Policy 9: Road traffic harm reduction	++/-	++	+	++	+/-	+/-	-	+/-	+/-	+/-	+/-	+
Policy 10: Supporting culture, heritage and tourism	+	++	+	+	++/-	++/-	++/-	+/-	+/-	+/-	+/-	+

4.2.1 Positive Effects

Six policies were identified as having significant positive effects on Population & Equalities; Policy 1, Policy 2, Policy 4, Policy 5, Policy 8 and Policy 9. Significant effects against this SEA Objective are reflective of improvements to connectivity, accessibility and inclusivity of the transport network and a reduction in inequalities in access for both urban and rural communities. Minor positive or mixed effects were identified for the remaining policies.

Three policies were identified as having significant positive effects on Human Health; Policy 6, Policy 9 and Policy 10. Significant effects against this SEA Objective are reflective of reductions in noise and air pollution, improvements to connectivity and access to services, promotion of active travel, and the subsequent impacts these changes will have on both physical and mental health for the population. For the remaining policies, five minor positive/mixed effects and one neutral effect were identified for this SEA Objective.

Four policies were identified as having significant positive effects on Economy & Employment; Policy 1, Policy 3, Policy 4, and Policy 5. Positive effects against this SEA Objective are reflective of improvements to connectivity and accessibility of services, employment sites and training opportunities. Minor positive or mixed effects were identified for the remaining policies.

Three policies were identified as having significant positive effects on Community Safety; Policy 2, Policy 6 and Policy 9. Significant positive effects identified against this SEA Objective are reflective of improvements to active travel and transport infrastructure that are likely to reduce the number of collisions and number of KSI on roads, leading to safety improvements, and promotion of active travel reducing the number of private vehicles on the road. Minor positive or mixed effects were identified for six of the remaining policies, and one neutral effect was identified.

Three policies were identified as having significant positive effects on Biodiversity & Natural Capital; Policy 2, Policy 4 and Policy 10. Significant positive effects are reflective of improvements to the transport network causing a reduction in pollution (e.g. noise and air pollution) and subsequent impacts on wildlife, as well as improvements to green infrastructure and habitats. Minor positive or mixed effects were identified for the remaining policies.

A significant positive effect has been identified on Landscape, Seascape & Townscape, for implementation of Policy 10. This significant positive effect is reflective of enhancements to the public realm, and the positive impacts that this would have on the quality of and condition of landscape and townscape across the study area. Minor positive or mixed effects were identified for the remaining policies.

A significant positive uncertain effect has been identified on Historic Environment, for implementation of Policy 10. This significant positive effect is reflective of enhancements to the public realm, and the positive impacts that this would have on the setting of heritage assets across the study area, and opportunities to incorporate sustainable design. The

uncertainty is identified as the location of improvements are not known, and therefore the full opportunity for positive effects on the historic environment may not be realised. Minor positive or mixed effects were identified for the eight of the nine other policies.

A significant positive uncertain effect has been identified on Climate Change & Greenhouse Gases for three policies; Policy 6, Policy 7 and Policy 8. Significant positive effects are reflective of an increase in sustainable transport and a move towards a net zero transport network, reducing transport emissions whilst improving the transport networks resilience to climate change. Minor positive or mixed effects were identified for the remaining policies.

A significant positive effect has been identified on Material Assets for three policies; Policy 1, Policy 3, and Policy 7. Significant positive effects are reflective of opportunities provided to support a green economy, and to utilise sustainable materials, support a circular economy, reuse brownfield land and to improve resource efficiency. Minor positive or effects were identified for the remaining policies.

No further significant positive effects have been identified, though a range of minor positive effects have been identified for each SEA Objective.

4.2.2 Negative Effects

A significant negative uncertain effect has been identified on Biodiversity & Natural Capital for implementation of Policy 2 and Policy 3. The significant negative effect is reflective of land take from construction of new parking facilities, and disturbance to habitats and wildlife associated with additional traffic and use of active travel routes. Minor negative effects, as part of mixed effects, have been identified for six of the remaining eight policies.

Significant negative effects have been identified on Material Assets for two policies; Policy 1 and Policy 3. Significant negative effects are reflective of the potential for land take, and loss of best and most versatile agricultural land. Uncertainty has been identified as the exact location of infrastructure, and therefore the impact on material assets, is not known. Minor negative/minor negative uncertain effects, as part of mixed effects, have been identified for two of the remaining nine policies.

No further significant negative effects have been identified, though a range of minor negative and minor negative uncertain effects have been identified for each SEA Objective.

4.3 Cumulative Effects

The SEA Regulations require that the cumulative effects of the TS are considered when identifying likely significant effects. This includes the cumulative effects of the policies and interventions comprising the plan (intra-plan), and the effects of the plan in conjunction with other plans and programmes (inter-plan).

Cumulative effects can arise when:

- Several individual policies and sites have a combined effect on an objective; or

- Several policies and sites have insignificant effects individually but when combined, lead to significant effects.

The significance of cumulative effects resulting from a range of activities, or multiple incidences of one activity, may vary based on factors such as the nature of the proposed sites and policies and the sensitivity of the receiving communities and environment.

4.3.1 Intra-plan Cumulative effects

The SEA assessment of policies drew out potential intra-project cumulative effects. These have been identified in **Table 4-2**.

Table 4-2 – Intra-plan Cumulative Effects Summary

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Population & Equalities	++/-	Significant positive cumulative effects are anticipated for Population & Equalities, as the TS policies will improve connectivity and inclusivity of, and access to, services, facilities and transport for all, through improvements to transport and active travel infrastructure across the KL&WN area. This is anticipated to benefit rural and urban areas proportionately, as policies aim to improve infrastructure across the area, including strategic connections between urban and rural areas. The TS policies will also support future population growth, by improving connectivity ensuring that the needs of existing and future businesses and residents within the borough, as well as visitors and commuters to the town, will be met. Improvements to transport infrastructure to implement the TS policies will require construction of new infrastructure, as well as updates and works to existing infrastructure. Construction works could result in temporary negative effects on access to services. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects due to severe restrictions to access, depending on the location of works. It is expected that construction works would take this into account and minor negative cumulative effects have been identified.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Human Health	++/-	Significant positive cumulative effects are anticipated for Human Health, as the TS policies will seek to promote healthier lifestyles and increase walking and cycling, across the region, through improvements to and promotion of active travel improving physical and mental health. New infrastructure will provide opportunities to incorporate green infrastructure, promoting physical and mental health enhancing environments. The TS policies also support a general move to sustainable and active travel, in support of NCC's net zero targets. This will work to reduce air and noise pollution. Improved connectivity can also help to tackle social isolation in both rural and urban areas, also having positive effects on human health. Negative cumulative effects are anticipated due to construction, as improvements to transport infrastructure could increase noise and air pollution, negatively affecting human health. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects. However these impacts are anticipated to be accounted for during scheme design and timing of works, resulting in minor negative cumulative effects.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Economy & Employment	++/-	Significant positive cumulative effects are anticipated on Economy & Employment as the TS policies will improve transport infrastructure and connectivity across the KL&WN area, through improved sustainable and active travel and improved parking amongst other measures. This will support economic growth, access to jobs, training and employment centres, regeneration of town centres, and the tourism industry through increased ease of access for residents and visitors, including to key tourist areas such as the Norfolk Coast National Landscape. Investment associated with construction of new infrastructure may also result in additional jobs and supply chain benefits. Negative cumulative effects are anticipated as construction may cause temporary restrictions to access, particularly to services and key transport corridors. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects. However these impacts are anticipated to be accounted for during scheme design and timing of works, resulting in minor negative cumulative effects. There may also be negative cumulative effects on tourism, as construction and operation of new transport infrastructure may impact the Norfolk Coast National Landscape and its value to the tourism economy.
Community Safety	++	Significant positive cumulative effects are anticipated on Community Safety. Improvements to transport infrastructure e.g. road crossings, signage and markings and a move towards sustainable transport and active travel will likely reduce the number of private vehicles in use and work to reduce both collisions and the number of KSI on roads in the area, which will encourage walking and cycling as feelings of safety increase. Better public transport can increase feeling of safety, particularly after dark if public transport services and better connected and more reliable.

Biodiversity & Natural Capital	+/-	Minor positive cumulative effects are anticipated on Biodiversity & Natural Capital due to encouragement of a modal shift away from private car use, improving air quality across the County and reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. The TS policies also aim to make the transport network net zero and improve the resilience of the transport network to the effects of severe weather and climate change, having a positive effect on this SEA Objective through a reduction in congestion, traffic related noise and air pollution and subsequently disturbance to wildlife. Schemes that deliver new infrastructure of sufficient scale will be required to deliver Biodiversity Net Gain (BNG) under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). This is anticipated to have positive cumulative effects. Implementing the policies of the TS will require some construction works, new permanent infrastructure may require land take which may result in permanent loss of biodiversity and natural capital, leading to negative cumulative effects. Construction works may also result in negative cumulative effects, as they may result in temporary increases in disturbance to local habitats during construction as a result of noise, vibration and reduced air quality. Increased use of active travel routes may also increase their use, and have negative effects on biodiversity through increased disturbance to wildlife and habitats. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects. Although these impacts are anticipated to be accounted for during scheme design and timing of works, there is potential for significant negative cumulative effects.
Landscape, Seascape & Townscape	++/-	Significant positive cumulative effects are anticipated on Landscape, Seascape & Townscape as the TS policies aim to generally improve the transport network, whilst promoting use of sustainable transport and active travel. This will likely increase ease of access to designated landscapes and reduce pollution such as air and noise pollution in their vicinity, leading to improvement in the quality of landscape and townscape settings.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
		The TS policies also provide numerous opportunities to improve the public realm through high quality design, incorporating green infrastructure and Sustainable Drainage Systems (SuDS), and improving the quality of landscape and townscapes across the county, whilst maintaining and strengthening the quality of local character having positive cumulative effects. Construction works could however result in temporary adverse effects on landscape and townscape character and quality, and visual amenity. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects. However these impacts are anticipated to be accounted for during scheme design and timing of works, resulting in minor negative cumulative effects.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Historic Environment	++/-	Significant positive cumulative effects are anticipated on Historic Environment as the TS policies aim to generally improve the transport network, whilst promoting use of sustainable transport and active travel, reducing use of private vehicles and pollution from transport. Improvements to the transport network could improve access to heritage assets, and provide opportunities to incorporate high quality design and green infrastructure into the public realm and enhance the setting of heritage assets through development of schemes that can reduce traffic and noise and enhance accessibility around heritage assets, as well as improve resilience of assets to the effects of climate change. This would be anticipated to have further positive cumulative effects. Construction works could however result in temporary adverse effects on access to, and the setting, quality and condition of, the historic environment. Excavation associated with construction of new infrastructure may impact non-designated and unknown buried heritage assets, which could be of high value. Areas such as the Norfolk Coast National Landscape are rich in archaeological and historical sites, including assets of internationally recognised value. Much of this may be as yet undiscovered and could be damaged during construction of transport infrastructure. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects. However, these impacts are anticipated to be accounted for during scheme design and timing of works, resulting in minor negative cumulative effects.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Water Environment	+/--	Positive cumulative effects are anticipated on Water Environment as the TS policies will support use of sustainable design, increasing green infrastructure and SuDS. This is expected to lead to positive effects on the water environments through improved drainage reducing discharge from roads and other permeable surfaces, therefore reducing surface water flooding. Operation of new transport infrastructure could lead to localised increased emissions, noise pollution, dust and other associated pollution could result in a reduction in water quality depending on location. Construction works could also result in temporary adverse effects on the water environment through noise, dust, and surface runoff entering waterbodies leading to a reduction in quality. If all construction were to be carried out simultaneously (unlikely worst-case scenario), there could be significant negative cumulative effects. However these impacts are anticipated to be accounted for during scheme design and timing of works, resulting in minor negative cumulative effects.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Air Quality	++/--	Significant positive cumulative effects are anticipated on Air Quality as the TS policies aim to generally improve the transport network, whilst promoting use of sustainable transport and active travel, reducing use of private vehicles and subsequent air pollution from transport. Operation of new transport infrastructure could lead to localised increased emissions, noise pollution, dust and other associated pollution could result in a reduction in water quality depending on location. Construction works could also result in temporary adverse effects on air quality through increased noise, dust, and greenhouse gas emissions reducing air quality. Reductions in air quality, during construction or operation, that occur in or near an AQMA could lead to significant negative effects on this SEA Objective. Potential negative effects on this SEA Objective should largely be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. If all construction were to be carried out simultaneously (unlikely worst-case scenario), or if all new transport infrastructure were near sensitive receptors, there could be significant negative cumulative effects. However, these impacts are anticipated to be accounted for during scheme design and timing of works. As there are likely to be works in close proximity to the Railway Road AQMA, potentially negatively impacting air quality in this designated area, significant negative cumulative effects have been identified.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Climate Change & Greenhouse Gases	++/-	Significant positive cumulative effects are anticipated on Climate Change & Greenhouse Gases as the TS policies are expected to support low carbon and energy efficient design, increase the resilience of transport infrastructure to the impacts of climate change, reduce levels of embodied carbon, and support net zero ambitions. The TS policies are expected to do this by encouraging and facilitating a modal shift towards a net zero transport network by reducing private vehicle use, provision of EV charging facilities, and promoting sustainable and active travel. New and upgraded infrastructure is anticipated to improve resilience to climate change by incorporating green infrastructure and SuDS, as well as using low carbon materials where possible. A negative cumulative effect has also been identified as there is potential for new infrastructure to result in an increase in impermeable surfaces, impacting drainage and flood resilience as well as contributing to the greenhouse effect. Although it is likely mitigation measures will be utilised, at the strategy level a residual minor negative effect is anticipated.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Noise	+/-	Minor positive cumulative effects are anticipated on Noise as the TS policies aim to generally improve the transport network, whilst promoting use of sustainable transport and active travel, reducing use of private vehicles and subsequent noise pollution from transport, though more buses may lead to noise pollution as they tend to be more noisy than cars. Improvements to transport infrastructure, promotion of active travel and sustainable transport, and use of sustainable design amongst other measures will likely lead to reduced congestion and subsequent noise. There is potential for significant effects, dependent on the extent of a modal shift towards use EVs, public transport and active travel, however this is currently unknown and will require monitoring. Operation of new transport infrastructure could lead to localised increases in noise, and construction works could also result in temporary adverse effects on noise through increased traffic and use of machinery. Increases in noise, during construction or operation, that occur in or near sensitive receptors e.g. Noise Important Areas, could lead to significant negative effects on this SEA Objective. However, potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. If all construction were to be carried out simultaneously (unlikely worst-case scenario), or if all new transport infrastructure were near sensitive receptors, there could be significant negative cumulative effects. However, these impacts are anticipated to be accounted for during scheme design and timing of works, resulting in minor negative cumulative effects.

SEA Objective	Effect significance	Description of intra-plan cumulative effects
Material Assets	+/--	Significant positive cumulative effects are anticipated on Material Assets, as works to improve existing infrastructure and development of new infrastructure associated with the TS policies will provide opportunities to utilise sustainable materials, support reuse of existing materials, promote a circular economy, utilise brownfield land, protect and enhance land quality, and ensure that transport infrastructure is resilient to climate change. Due to the anticipated scale of works, this is expected to have a significant positive effect. Development of new infrastructure in support of the TS policies will produce waste and require land take, which could result in loss of best and most versatile land. Due to the anticipated scale of works, this is expected to have a significant negative cumulative effect.

The assessment of intra plan cumulative effects identified potential for significant positive cumulative effects against nine of the 12 SEA Objectives; Population & Equalities, Human Health, Economy & Employment, Community Safety, Landscape, Seascape & Townscape, Historic Environment, Air Quality, Climate Change & Greenhouse Gases, and Material Assets. Positive cumulative effects have been identified due to the delivery of a more reliable and sustainable transport network and improved active travel routes as part of a modal shift to a net zero transport network. Development associated with the TS policies brings opportunity to improve sustainability and improve the setting of the public realm and surrounding environment.

For the remaining SEA objectives, minor positive cumulative effects have been identified.

Significant negative cumulative effects have been identified for Biodiversity & Natural Capital, Air Quality and Material Assets, due to the assumed scale of development and amount of resource required to support the TS policies, and potential for disturbance to wildlife during construction. There is also potential for negative impacts on air quality in the Railway Road AQMA.

For the remaining SEA Objectives, other than Community Safety, minor negative cumulative effects have been identified due to the potential for overlapping construction periods, and developments to be in close proximity to one another. However, it is assumed that in line with national and local planning policy any proposals would seek to avoid and minimise impacts, therefore, residual significant effects are unlikely.

4.3.2 Inter-plan Cumulative Effects

This section presents the consideration of how the Policies and Targets within the TS may interact with proposals in other plans, programmes and projects.

Table 4-3 identifies the types of plans, programmes and projects that could result in interactions and therefore cumulative effects with the TS.

Table 4-3 – Sources of Inter-plan Cumulative Effects

Summary of Plans
Regional and Sub-Regional
Transport East Transport Strategy 2023-2050 (2023) This Strategy is set out by the sub-national transport body for Norfolk, Suffolk, Essex, Southend-on-Sea and Thurrock. The Strategy aims to guide investment in the east until 2050, to overcome the transport challenges faced and deliver a fit for purpose, high quality, inclusive and sustainable transport network that can accommodate growth. The Vision of the Strategy is to achieve ‘<i>A thriving Eastern region with safe, efficient and net zero transport networks advancing a future of inclusive and sustainable growth for decades to come</i>’. The Strategic Priorities set out to deliver the vision are as follows: ■ Decarbonisation to net-zero ■ Connecting growing towns and cities ■ Energising coastal and rural communities ■ Unlocking international gateways
North Norfolk Shoreline Management Plan The SMP aims to identify the best ways to manage flood and erosion risk to people and the developed, historic and natural environment and to identify opportunities where shoreline management can work with others to make improvements.

Summary of Plans

Wash Environment Agency (2022) Anglian river basin district (RBD) river basin management plan

Describes the pressures facing the water environment and the actions that will address them, particularly in relation to water quality. The environmental objectives covered by the plan are:

- preventing deterioration of the status of surface waters and groundwater
- achieving objectives and standards for protected areas
- aiming to achieve good status for all water bodies
- reversing any significant and sustained upward trends in pollutant concentrations in groundwater
- cessation of discharges, emissions and losses of priority hazardous substances into surface waters
- progressively reducing the pollution of groundwater and preventing or limiting the entry of pollutants

Norfolk Coast Partnership (2022) Norfolk Coast Areas of Outstanding Natural Beauty (AONB) Management Plan 2019-2024 (Revised 2022)

The relevant local authorities (Norfolk County Council, North Norfolk District Council, Borough Council of King's Lynn and West Norfolk, Great Yarmouth Borough Council, Broad Authority) have agreed that the Norfolk Coast Partnership undertake the AONB Management Plan.

The plan includes a 20-year vision for the area. The vision covers what needs protecting - and what needs changing. The aim is not for everything to remain the same and it is important to recognise the tension between the character of the area, as seen today, and change and adaptation required to meet the future. There are five themes within the plan, covering aspects of management of the area:

- Landscape, biodiversity and geodiversity;
- Built and historic environment;
- Farming, forestry and fishing;
- Sustainable communities; and
- Access and recreation.

Norfolk Council Plans

Summary of Plans

Norfolk County Council, Local Transport Plan 4 – Implementation Plan

The Implementation Plan is firmly focussed on achieving the strategic ambitions of our adopted LTP4 strategy. The plan includes 7 objectives to achieve the ambitions of the LTP4:

- Embracing the future
- Delivering a sustainable Norfolk
- Enhancing Connectivity
- Enhancing Norfolk's quality of life
- Increasing accessibility
- Improving Transport Safety

'Objective 6: Improving Transport Safety' includes the target to work in partnership to achieve casualty reductions on the transport network using the Safe Systems approach.

Norfolk County Council, Better Together for Norfolk, Norfolk County Council Strategy 2021-25

The strategy includes the following vision:

'We want Norfolk to be the place where everyone can start life well, live well and age well, and where no one is left behind.'

We want our economy to be vibrant, entrepreneurial and sustainable, supported by the right jobs, skills, training and infrastructure.

We want our communities to feel safe, healthy, empowered and connected, their individual distinctiveness respected and preserved'

The strategy also includes better opportunities for children and young people, as well as families. Additionally, it includes community priorities to improve communities and opportunities.

Norfolk County Council, Environmental Policy (2019)

This policy includes a number of goals relating to biodiversity:

- Encouraging a thriving plant and wildlife community
- Enhancing beauty, heritage and engagement with the natural environment
- Enhancing biosecurity

Summary of Plans

Norfolk County Council, Local Nature Recovery Strategy (in preparation)

The strategy will provide a blueprint for how Norfolk's local communities, landowners, land managers, local authorities, private companies and government bodies can work together to broaden protection for nature in the planning system, and restore and recover it on the ground. This will include:

- **Creating Ecological Networks:** Establishing a 'Nature Recovery Network' to connect isolated habitats, creating corridors that promote species migration, genetic exchange, and adaptation to climate change. This approach recognises that a connected landscape is more resilient and beneficial for both wildlife and people.
- **Enhancing Biodiversity:** The protection and restoration of local wildlife, creating and improving habitats for native species.
- **Green Space Access and Connection:** Improving access to, and the quality of, green spaces and natural areas for local residents and tourists. This is both for the physical and mental health benefits they provide and to foster a deeper connection with, and appreciation for, the natural world.
- **Using Land Sustainably:** Promoting land use practices that are sustainable and nature-friendly. Including encouraging everything from sustainable agriculture and forestry practices to nature-based solutions in urban planning and development.
- **Engaging With Communities and Partners:** Involving local communities, landowners, land managers, local authorities, private companies, business, the third sector, and government bodies in the nature recovery process. This will ensure strategies are locally grounded, widely supported, and that they offer social, economic and environmental benefits.
- **Climate Change Mitigation and Adaptation:** Using natural solutions to combat climate change, such as increasing tree cover to remove carbon from the atmosphere, restoring wetlands and peatlands, and changing the way farmland is managed.
- **Opportunities for Education:** Providing opportunities for environmental education and citizen science. This will help to increase community awareness and understanding of biodiversity issues and the importance of healthy ecosystems.

Summary of Plans

Norfolk County Council (2015) Flood Risk Management Strategy

The Local Flood Risk Management Strategy aims to inform all groups and individuals who may have an interest in, or an ability to influence or manage flood risk, including householders, businesses, landowners, developers and risk authorities.

The Local Flood Risk Management Strategy seeks to:

- explain what flooding is, its dangers, and how flood risk can be managed;
- inform about the extent and characteristics of flood risk in Norfolk and signpost other sources of information about flood risk in the county;
- clarify which Risk Management Authorities are responsible for which flood risk management activities;
- indicate the objectives of the strategy and make commitments in respect of the actions that will be taken by the Lead Local Flood Authority and other Risk Management Authorities;
- establish a framework of policies that will ensure that riparian owners, businesses, developers and authorities apply a consistent and strategic approach to flood management;
- outline a series of proactive measures which will increase understanding of local flood risk and identify further measures to manage those risk;
- clarify how flood risk management is to be funded in Norfolk
- indicate how flood risk management activities will be monitored and how the strategy will be reviewed

The existing policies in the Local Flood Risk Management Strategy was reviewed in 2021 against new and emerging national strategies and policies. This has resulted in 3 new policies and minor updates to our existing policies.

Norfolk County Council, Climate Strategy (2023)

This Strategy outlines the Council's commitment to tackle climate change and includes 7 focus areas for the County moving forward:

- Our estate
- Indirect emissions
- County-wide emissions
- Promoting a green economy
- Adapting to climate change
- Space for nature to recover and grow
- Engage and collaborate

Summary of Plans

Norfolk County Council (2010) Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026

In planning for mineral extraction and waste management facilities to meet Norfolk's future needs in the most sustainable way, the Core Strategy will:

- Help to reduce emissions of greenhouse gases and thus mitigate climate change and ensure that Norfolk is seen as a leader in this area;
- Protect Norfolk's special and distinctive natural and cultural heritage, especially in areas such as the Broads, the North Norfolk Coast and the Brecks, and help to develop the county's ecological network;
- Minimise adverse impacts on the transport system and promote opportunities for more sustainable transport;
- Maintain the amenity and well being of people living in close proximity to mineral extraction and associated development and waste management facilities through effective mitigation measures and provide long term benefits through restoration; and
- Safeguard important and finite mineral resources from inappropriate development, particularly the nationally-significant deposits of silica sand in the county.

The Strategy also outlines a number of aims and objectives, including:

- To meet minerals and waste requirements in a sustainable manner and help to deliver sustainable growth;
- To reduce the impact of mineral extraction and associated development and waste management facilities on the transport system;
- To protect and enhance the natural, historic and built environment in relation to mineral extraction and associated development and waste management facilities;
- To mitigate climate change;
- To promote social inclusion and human health and wellbeing.

Norfolk County Council, Broads National Park, National Trails – Norfolk Access Improvement Plan (NAIP) 2019 - 2029

This Plan incorporates Norfolk's Rights of Way Improvement Plan, and sets out priorities for the next 10 years, for improving the rural and urban access network to make it easier to enjoy Norfolk's coast and countryside in a sustainable manner. The key strategic objectives of the Plan are to:

- Manage the countryside access network so that it is better able to meet the varying demands placed upon it;
- Increase public, economic and environmental benefit;
- Actively seek the involvement of communities;
- Take a collaborative and pragmatic approach to responsibilities and resources; and
- Increase investment in the countryside access network

Summary of Plans

Norfolk County Council Local Growth Plan – Norfolk Economic Strategy 2024-2029

The Strategy outlines the council's mission to improve productivity, drive growth and improve standards of living, aiming to increase GVA and shape economic growth for the benefit of people. The Strategy outlines the Vision for Norfolk to be:

- A more inclusive, higher productivity economy
- A Centre of excellence for research and innovation
- A UK leader in offshore clean energy production and climate change adaptation
- A major cluster for the UK's agri-food and agri-tech sector, with a flourishing supply chain of local firms and farmers
- A European leader in financial services
- An international and domestic tourism destination for the UK with growing value and expanding offer
- A major growth location and extension of the London to Cambridge growth corridor
- An economy that prioritises growth alongside health and wellbeing

Local Policies

King's Lynn and West Norfolk Local Plan 2021 – 2040

Planning authorities within England are required to prepare a Local Plan to guide decision-making on future development proposals. Plans seek to identify the needs and opportunities of the area; identifying the scale and location of growth to be delivered across their respective administrative area.

King's Lynn Local Cycling and Walking Infrastructure Plan

Local Cycling and Walking Infrastructure Plans are 10-year, focused plans for developing a cycling and walking network within the local area. The purpose of the plan is to identify and prioritise cycling and walking network improvements to be implemented in the short, medium and long term.

This Plan replaces the Core Strategy and Site Allocations & Development Management Policies and will identify the full, objectively assessed housing needs for the borough and proposals to ensure consistency with national policy, over the plan period 2021 - 2040.

Borough of King's Lynn and West Norfolk Corporate Strategy 2023-2027

The Strategy includes the following priority:

- Support Our Communities – to support the health and wellbeing of our communities, help prevent homelessness, assist people with access to benefits advice and ensure there is equal access to opportunities

Summary of Plans

Borough of King's Lynn and West Norfolk, West Norfolk Tourism Development Plan 2022-26

The Plan aims to build upon the tourism economy in West Norfolk following a decline in tourism and the tourism economy during the Covid-19 pandemic. The Plan includes six aims to improve the tourism economy:

1. Impacts on employment within the tourism sector;
2. 'Sustainable Tourism' and the natural environment;
3. Innovation and digitisation;
4. Visitor accessibility;
5. Experimental Tourism – bookable experiences; and
6. Developing the cultural product.

Borough of King's Lynn and West Norfolk, The Borough of King's Lynn and West Norfolk Tree and Woodland Strategy (2017)

This strategy sets out how we'll manage our tree stocks in a sustainable way.

An important aspect of plan will be to, as far as is practicable, make the trees and woodlands more resilient in the face of threats from:

- introduced pests
- diseases
- climate change

A key aim will be to increase tree canopy cover in the borough by:

- planting new trees
- ensuring proper development of newly established trees to maximise the benefits they can provide

The strategy seeks to strike a balance between:

- maximising benefits provided by trees
- recognising that trees can cause significant problems for home owners when in close proximity to dwellings and gardens

Summary of Plans

Borough of King's Lynn and West Norfolk, Wash East Coastal Management Strategy (2015)

The Wash East Coastal Management Strategy (WECMS) was published in 2015 for the east coast of The Wash between Wolferton Creek and the Hunstanton Cliffs. The strategy was prepared in partnership between the Environment Agency and the Borough Council, alongside stakeholder consultation.

Development of the Strategy was recommended by The Wash Shoreline Management Plan 4 (2010) to implement its management recommendations.

To do this the Strategy split the east coast of The Wash into three areas:

- Unit A – Hunstanton Cliffs (managed by the Borough Council)
- Unit B – Hunstanton Town (managed by the Borough Council)
- Unit C – South Hunstanton to Wolferton Creek (managed by the Environment Agency)

For each of these areas, the Strategy identifies the most suitable flood and coastal erosion risk management approaches which also seek to protect the natural and historic environment of the area.

Summary of Plans

Borough Council of King's Lynn and West Norfolk (2024) Draft Air Quality Action Plan
BCKL&WN are currently developing their new Air Quality Action Plan from 2024 – 2029.

Actions have been considered under the following short-listed topics:

- Planning policy and development control interventions;
- Promoting travel alternatives and providing infrastructure improvements;
- Vehicle fleet efficiencies / improvements;
- Traffic management improvements;
- Public Information

The plan includes six priorities:

- Priority-1: To increase active travel: A modal shift to other, more sustainable forms of transport is considered a critical part of the plan, as it will lead to a reduction in private car use, improve air quality and also help to create a healthy community.
- Priority-2: Bus service improvements: Public transport (bus) service improvements comprise the next priority with a range of measures identified within the Bus Service Improvement Plan (BSIP). A reduction in the nitrogen oxide (NOx) emissions through bus engine improvements are also sought.
- Priority-3: Transport Management: Prioritising transport management / infrastructure improvements for the centre of King's Lynn to help facilitate a modal shift to more active travel is also a priority. The plans have been progressed to a high level as part of the King's Lynn Area Transport Strategy. The work includes improvements to the town centre's gyratory system in favour of cycling/walking/public transport and also a regeneration of the South Gates area. Other complimentary transport management measures include the development of a comprehensive car-parking strategy.
- Priority-4: Review of new planning developments: Minimising emissions from new developments through best practice principles is also an important aspect of the plan.
- Priority-5: Public Information; A range of interventions are also necessary to better engage the public on air quality necessary to encourage behaviour change.
- Priority-6: Air Quality Project: The final element to this AQAP is to develop a local air quality project focussed on particulate matter of less than 10 & 2.5 microns (PM10 & PM2.5).

Neighbourhood Plans

Summary of Plans

Neighbourhood plans set out planning policies for a specific area and are written by the local communities that they represent, formalising the communities wishes for development of their neighbourhood in the planning system. They are used to decide whether to approve planning applications. Neighbourhood Plans must address development and use of land and conform with Local Plans.

Adopted Neighbourhood Plans within KL&WN are:

- Burnham Market
- Castle Acre
- Gayton and Gayton Thorpe
- Grimston, Pott Row, Roydon and Congham
- Heacham
- Holme-next-the-Sea
- Hunstanton
- North Wootton
- Old Hunstanton
- Ringstead
- South Wootton
- Stoke Ferry
- Terrington St John
- Watlington

The following neighbourhood areas currently have plans under preparation:

- Burnham Quarry
- Dersingham
- Docking
- Downham Market
- Great Massingham
- Ingoldisthorpe
- Marshland St James
- Outwell
- Pentney
- Shouldham
- Syderstone
- Tilney St Lawrence
- Walpole (The Walpoles)
- Walpole Cross Keys
- West Dereham

Water Resource Management Plans (WRMPs)

WRMPs are statutory documents that are required to be produced by water companies at least once every five years. WRMPs set out how a company will ensure that a secure supply of water is maintained for businesses and homes, while protecting the natural environment. Anglian Water's WRMP is most likely to interact with the King's Lynn TS.

Summary of Plans

Nationally Significant Infrastructure Projects (NSIPs)

At the time of writing, 54 nationally significant infrastructure projects in the Eastern region were at various stages; 17 at pre-application, one at examination and 36 decided. The projects, their respective developers, and their status at the time of writing are outlined below:

- A12 Chelmsford to A120 Widening Scheme – National Highways – Decided
- A14 Cambridge to Huntingdon Improvement Scheme – Highways England – Decided
- A428 Black Cat to Caxton Gibbet Road Improvement scheme – Highways England – Decided
- A47 – A11 Thickthorn Junction – Highways England – Decided
- A47 Blofield to North Burlingham – Highways England – Decided
- A47 North Tuddenham to Easton – Highways England – Decided
- A47 Wansford to Sutton – Highways England – Decided
- Bramford to Twinstead – National Grid Electricity Transmission – Decided
- Cambridge Waste Water Treatment Plant Relocating – Anglian Water Services Limited – Decided
- East Anglia ONE North Offshore Windfarm – East Anglia ONE North Limited – Decided
- East Anglia ONE Offshore Windfarm – East Anglia One Ltd – Decided
- East Anglia THREE Offshore Wind Farm – East Anglia THREE Limited – Decided
- East Anglia TWO Offshore Windfarm – East Anglia TWO Limited – Decided
- East Park Energy – BSSL Cambsbed 1 Limited – Pre-application
- East Pye Solar – East Pye Solar Ltd – Pre-application
- East West Rail – Bedford to Cambridge and Western improvements – East West Railway Company Limited – Pre-application
- Eastern Green Link 3 and Eastern Green Link 4 – National Grid Electricity Transmission – Pre-application
- Ecopower Suffolk Solar – EcoPower Suffolk Limited – Pre-application
- Fens Reservoir – Anglian Water and Cambridge Water – Pre-application
- Five Estuaries Offshore Wind Farm – Five Estuaries Wind Farm Ltd – Decision
- Galloper Offshore Wind Farm – Galloper Wind Farm Ltd – Decided
- Great Yarmouth Third River Crossing – Norfolk County Council – Decided
- Hedgehog Grove Solar Farm – Hedgehog Grove Solar Farm Ltd – Pre-application
- High Grove Solar – RWE Renewables UK Solar and Storage Ltd – Pre-application
- Hornsea Project Three Offshore Wind Farm – Orsted Hornsea Project Three (UK) Ltd – Decided
- Ipswich Rail Chord – Network Rail – Decided
- Kings Lynn B Connection Project – National Grid – Decided
- Kingsway Solar Farm – Kingsway Solar Farm Limited – Pre-application
- Lake Lothing Third Crossing – Suffolk County Council – Decided
- LionLink Interconnector – National Grid Interconnector Holdings Limited – Pre-application
- London Luton Airport Expansion – London Luton Airport Limited – Decided
- Longfield Solar Farm – Longfield Solar Energy Farm Limited – Decided
- M1 Junction 10a Grade Separation – Luton – Luton Borough Council – Decided
- Medworth Energy from Waste Combined Heat and Power Facility – Medworth CHP Limited Decided
- Meridian Solar Farm – Meridian Solar Farm Ltd – Pre-application
- Millbrook Power – Millbrook Power Limited – Decided

Summary of Plans

- Norfolk Boreas – Norfolk Boreas Limited – Decided
- Norfolk Vanguard – Norfolk Vanguard Limited – Decided
- North Falls Offshore Wind Farm – North Falls Offshore Wind Farm Ltd – Examination
- Norwich Northern Distributor Road (NDR) – Norfolk County Council – Decided
- Norwich to Tilbury – National Grid Electricity Transmission (NGET) – Pre-application
- Palm Paper 3 CCGT Power station Kings Lynn – Palm Paper Ltd – Decided
- Progress Power Station – Progress Power Limited – Decided
- Rivenhall IWMF and Energy Centre – Indaver Rivenhall Ltd – Decided
- Rookery South Energy from Waste Generating Station – Covanta Rookery South Limited – Decided
- Rosefield Solar Farm – Rosefield Energy Farm Limited – Pre-application
- Sheringham and Dudgeon Extension Projects – Equinor – Decided
- Sunnica Energy Farm – Sunnica Ltd – Decided
- The Drovers Solar Farm – The Drovers Solar Farm Limited – Pre-application
- The Grand Union Canal Transfer – Affinity Water and Severn Trent Water – Pre-application
- The Sizewell C Project – NNB Generation Company (SZC) Limited – Decided
- Walpole Flexible Generation Project – Walpole Flexible Generation Limited – Pre-application
- White Elm Solar Farm – ELMYA RPC UK Grange Road Limited – Pre-application
- Woodside Link Houghton Regis Bedfordshire – Central Bedfordshire Council - Decided

Table 4-4 outlines the likely significant effects of the identified plans, programmes and projects, in-combination with the TS, that have been identified against each of the SEA objectives.

Table 4-4 – Assessment of Inter-plan Cumulative Effects

SEA Objective	Effect significance	Description of potential cumulative effects
Population & Equalities	++/-	The updated TS policies have the potential to interact with other plans, including the Transport East Transport Strategy, NCC's Local Transport Plan 4 (LTP4), the NCC Strategy, Local Nature Recovery Strategy (LNRS), Norfolk Economic Strategy, KL&WN Local Plan, Draft Air Quality Action Plan, and any plans and policies leading to construction work and/or development of infrastructure, resulting in cumulative effects on Population & Equalities. The visions, aims and objectives of the TS policies, along with the regional transport strategies and LTP4 are likely to lead to significant positive cumulative effects, as improvements to the transport network at a regional and subregional scale will improve inclusivity of and access to services, facilities and transport for all, as well as supporting diversity and population growth. This is anticipated to positive impact both rural and urban areas. The NCC Strategy and Local Nature Recovery Strategy also highlight objectives focussed on improving connectivity, and the Draft Air Quality Action Plan aims to encourage a modal shift to active travel and improve bus services. The KL&WN Local Plan and Norfolk Economic Strategy include objectives to reduce inequality and support inclusivity of the economy, as well as improve access to facilities. These strategies also provide opportunity for positive cumulative effects with the TS policies. In line with national and local planning policy it is assumed that there is suitable mitigation available to address any negative interactions between the TS policies and other plans and strategies, including the phasing of developments to ensure that no residual significant negative effects arise during construction.

SEA Objective	Effect significance	Description of potential cumulative effects
Human Health	++/-	The updated TS policies have the potential to interact with other plans, including the Transport East Transport Strategy, NCC's LTP4, the NCC Strategy, the NCC LNRS, the NCC Climate Strategy, the NCC Minerals and Waste Development Management Policies Development Plan Document, the Norfolk Access Improvement Plan (NAIP), the Norfolk Economic Strategy, King's Lynn Local Cycling and Walking Infrastructure Plan (LCWIP), the KL&WN Corporate Strategy, Draft Air Quality Action Plan, and any plans and policies leading to construction work and/or development of infrastructure, resulting in cumulative effects on Human Health. The aforementioned plans and strategies contain a number of objectives and aims that could enhance access to sustainable transport modes and active travel routes, as well as improved transport infrastructure, that in combination with the TS policies will promote healthier lifestyles, increase walking and cycling, and help to reduce social isolation through improved connectivity, resulting in significant positive cumulative effects. Improved connectivity will improve access to green space, having positive effects on physical and mental health for residents and tourists. There are also a number of aims and objectives relating to reducing emissions, and moving towards a net zero transport network, which will also have positive cumulative effects on Human Health across the region through reductions in noise and air pollution. There is potential for negative interactions between the TS policies and other plans, especially those involving new or improved infrastructure, to result in travel disruption and increased air and noise pollution, which may have a negative effect on human health. In line with national and local planning policy it is assumed that there is suitable mitigation available to address any negative interactions between the TS and other plans, including the phasing of developments to ensure that no residual significant negative effects arise during construction.

SEA Objective	Effect significance	Description of potential cumulative effects
Economy & Employment	++/-/?	The updated TS policies have the potential to interact with other plans, including the Transport East Transport Strategy, NCC's LTP4, the NCC Strategy, NCC's Climate Strategy, the NAIP, the Norfolk Economic Strategy, the KL&WN Local Plan, the LCWIP, West Norfolk Tourism Development Plan, NSIPs, Neighbourhood Plans, and any plans and policies leading to construction work and/or development of infrastructure resulting in cumulative effects on Economy & Employment. These strategies, plans and projects support improvements to the transport network at a local and regional scale, which will increase accessibility and support economic growth, as well as access to jobs and training, employment centres, and tourism. This is anticipated to have significant positive cumulative effects alongside the TS policies. The policies will also support the regeneration of town and district centres through improvements to access and to the public realm. There is potential for temporary negative cumulative effects during the construction phase, if multiple developments take place in close proximity to each other, with overlapping construction periods, temporarily restricting access to services and causing increased congestion. Ultimately, the nature and significance of effects will be dependent on the precise location, scale and timing of developments. Over the longer term, improvements to local infrastructure should have a positive impact on the economy and employment as access to sustainable transport improves.

SEA Objective	Effect significance	Description of potential cumulative effects
Community Safety	++/-	The updated TS policies have the potential to interact with other plans, including the Transport East Transport Strategy, NCC's LTP4, the NCC Strategy, and any plans and policies leading to construction work and/or development of infrastructure, to provide significant positive cumulative effects on Community Safety. Thes policies and strategies, in combination with the TS policies, will lead to improvements to transport infrastructure e.g. road crossings, better lighting, signage and markings and a move towards sustainable transport and active travel will likely reduce the number of private vehicles in use and work to reduce both collisions and the number of KSI on roads in the area, which will encourage walking and cycling as feelings of safety increase. Better public transport can increase feeling of safety, particularly after dark if public transport services and better connected and more reliable. The LTP4 will utilise the Safe Systems Approach, like the TS. Overall, this will result in positive cumulative effects on Community Safety. Short term, temporary, negative cumulative effects on safety could be seen during the construction period if multiple developments take place in close proximity to each other, with overlapping construction periods. Increased construction traffic and congestion in a concentrated area could increase the risk of accidents on the road network.

SEA Objective	Effect significance	Description of potential cumulative effects
Biodiversity & Natural Capital	+/--	The updated TS policies have the potential to interact with other plans, including the NCC's Environmental Policy, the LNRS, NCC LTP, the KL&WN Local Plan, water management plans and any plans and policies leading to construction work and/or development of infrastructure, to provide significant positive cumulative effects on Biodiversity & Natural Capital. These policies and strategies contain aims and objectives to encourage plants and wildlife to thrive and enhance biosecurity, as well as to enhance biodiversity, protect and restore wildlife, and create and improve habitats. Overall, there is potential to deliver significant positive effects on biodiversity across the NCC area. The TS policies and other plans have the potential to interact, resulting in cumulative effects on Biodiversity & Natural Capital. Some of these plans may involve major construction works and land take, that could impact sensitive receptors and outweigh potential benefits from the TS policies. If construction works are in close proximity, at the same time and with impact pathways to the same receptors, there is potential for significant negative cumulative effects. However, national and local planning policies, including NCC's Environmental Policy and LNRS seek to protect and enhance biodiversity, as a result, it is considered that significant residual, negative, cumulative effects are unlikely. There are likely to be opportunities to deliver a net gain for biodiversity; however, this is uncertain at this stage. Ultimately, the nature and significance of effects will be dependent on the precise location, scale and design of development and implementation of mitigation at the project level. Overall, a significant negative effect has been identified due to the potential for negative impacts without appropriate mitigation.

SEA Objective	Effect significance	Description of potential cumulative effects
Landscape, Seascape & Townscape	+/-	The updated TS policies and other plans have the potential to interact, resulting in cumulative effects on Landscape, Seascape & Townscape. There is potential for positive cumulative effects between the TS policies and other plans, including the Transport East Transport Strategy, Integrated Transport Strategy for Norfolk and Suffolk, NCC's LTP4, the NCC LNRS, and any plans and policies leading to construction work and/or development of infrastructure. Positive cumulative effects could arise as improvements to the transport network could reduce the number of vehicles on the roads and also improve and encourage sustainable access to green spaces, townscapes and designated and non-designated landscapes. The LNRS includes an objective to improve access to, and the quality of, green spaces and natural areas for local residents and tourists, which is likely to result in positive cumulative effects alongside the TS. There is potential for negative cumulative effects on Landscape, Seascape & Townscape, if multiple developments were to take place in close proximity. However, national and local planning policies require proposals for development to protect and enhance the landscape, and townscape. As a result, it is considered that significant negative cumulative effects are unlikely. Ultimately, the nature and significance of effects will be dependent on the precise location, scale and design of development and implementation of mitigation at the project level.

SEA Objective	Effect significance	Description of potential cumulative effects
Historic Environment	+/-	The updated TS policies and other plans have the potential to interact, resulting in cumulative effects on Historic Environment. There is potential for positive cumulative effects between the TS policies and other plans, including the Transport East Transport Strategy, NCC's LTP4, NCC's Core Strategy and Minerals and Waste Development Management Policies Development Plan, the NCC Environmental Policy, the North Norfolk Shoreline Management Plan, the Wash East Coastal Management Strategy, and any plans and policies leading to construction work and/or development of infrastructure. Improvements to the transport network and development of new infrastructure will improve access to the historic environment, and provide opportunity to improve the quality and condition of the historic environment, enhance the setting of heritage assets, and incorporate sustainable design. The aforementioned plans also contain objectives and aims relating to management of the historic environment, reducing flood risk to the historic environment, to protect and enhance the built and historic environment and to protect and enhance Norfolk's heritage, bringing potential for minor positive effects on the historic environment. The updated TS policies and other plans have the potential to interact, resulting in negative cumulative effects on the historic environment. Particularly if construction periods overlap and are within the setting of the same heritage asset (designated or non-designated). Construction could also result in loss of buried and unknown historical and archaeological artefacts. In line with national and local planning policy any proposal would be required to conserve and enhance the historic environment, including designated and non-designated heritage assets. As a result, it is considered that significant negative cumulative effects are unlikely.

SEA Objective	Effect significance	Description of potential cumulative effects
Water Environment	+/--	The updated TS policies and other plans have the potential to interact, resulting in cumulative effects on Water Environment. There is potential for positive cumulative effects between the TS policies and other plans, including the Transport East Transport Strategy, NCC's LTP4, NSIPs, Anglian river basin district (RBD) river basin management plan, the LFRMS, Anglian Water's WRMP, the Wash East Coastal Management Strategy, the North Norfolk Shoreline Management Plan, and any plans and policies leading to construction work and/or development of infrastructure. There is potential for positive cumulative effects with water related plans, especially the LFRMS, coastal Management Strategy and Shoreline Management Plan through appropriate management of the water environment and a subsequent reduction in coastal and surface water flood risk. Cumulative improvements to the transport network will result in reductions in traffic, which may lead to reductions in pollution load in runoff over the long term and further positive cumulative effects. There is potential for negative cumulative effects on Water Environment if multiple developments were to take place in close proximity or hydrologically connected to one another. Increased construction activity associated with multiple sites could lead to increased risk of pollution and negative effects on water quality through waste, dust, and runoff from construction sites. This could negatively impact both surface water and groundwater. As some plans will require major construction works, there is potential for significant negative effects. Although national and local planning policies require that any new development will seek to protect and enhance watercourses and utilise Sustainable Drainage Systems (SuDS) where appropriate, a significant negative effect has been identified due to the potential for negative impacts without appropriate mitigation.

SEA Objective	Effect significance	Description of potential cumulative effects
Air Quality	+/--	The updated TS policies and other plans have the potential to interact, resulting in cumulative effects on Water Environment. There is potential for positive cumulative effects between the TS policies and other plans, including the Transport East Transport Strategy, NCC's LTP4, NSIPs, the Draft Air Quality Action Plan, the Climate Strategy, and any plans and policies leading to construction work and/or development of infrastructure. Improvements to the transport network could lead to increased utilisation of public transport and active travel routes, reducing reliance on, and use of, private vehicles for journeys. This is line with other plans including the Transport Strategies for both the East and for Norfolk, the LTP4, and the Draft Air Quality Action Plan that seek to deliver sustainable development and support a modal shift to sustainable transport, as well as reducing transport emissions and associated air pollution. This could result in a positive cumulative effect on air quality through a reduction in traffic emissions during operation. If the construction periods of multiple developments overlap and are in close proximity to one another, there is potential for temporary negative cumulative effects due to increased dust and particulate matter as well as traffic, which could negatively impact air quality. The appropriate phasing of development would help to avoid the potential for cumulative negative effects during the construction phase. In line with national and local planning policies it can also be assumed that the negative impacts as a result of construction would be mitigated to ensure that there are no residual significant effects. As the TS itself is likely to have significant effects on Air Quality, due to a potential reduction in air quality in the Railway Road AQMA during construction, significant negative cumulative effects have been identified.

SEA Objective	Effect significance	Description of potential cumulative effects
Climate Change & Greenhouse Gases	++/-	The updated TS policies and other plans have the potential to interact, resulting in cumulative effects on Climate Change & Greenhouse Gases. There is potential for positive cumulative effects between the TS policies and other plans, including the Transport East Transport Strategy, NCC's LTP4, the LNRS, the Draft Air Quality Action Plan, the Climate Strategy, and any plans and policies leading to construction work and/or development of infrastructure. Improvements to the transport network outlined in the aforementioned plans and policies will bring additional opportunities to incorporate green infrastructure and sustainable, low carbon design, and reduce embodied carbon, reducing flood risk and increasing the resilience of transport infrastructure. The plans and policies also support a modal shift towards more sustainable and active travel, reducing reliance on private cars and reducing emissions, and outline methods for reducing operational transport emissions into the future. Due to this, there is potential for significant positive cumulative effects on Climate Change & Greenhouse Gases. There is potential for temporary negative cumulative effects during the construction phase, if multiple developments take place in close proximity to each other, with overlapping construction periods. This could result in increased greenhouse gas emissions from increased traffic. However, in line with national and local planning policy it is assumed that any proposals will be required to provide appropriate mitigation to ensure that construction related activities do not result in a residual significant effect.

SEA Objective	Effect significance	Description of potential cumulative effects
Noise	+/-	The updated TS policies have the potential to interact with other plans, including the Transport East Transport Strategy, the LTP4, and any plans and policies leading to construction work and/or development of infrastructure. The plans and policies, in combination with the TS policies, will aim to support a modal shift towards sustainable transport and active travel rather than reliance on private cars, through improvements to the transport network and promotion of other modes of travel. This is likely to lead to positive cumulative effects on Noise, through a reduction in traffic related noise pollution. There is potential for temporary negative cumulative effects on Noise during the construction phase, if multiple developments take place in close proximity to each other, with overlapping construction periods. This could result in an increased amount of noise pollution from construction activities as well as increased traffic noise. In line with national and local planning policies it is assumed that any proposals for development would seek to minimise impacts of noise pollution and that residual significant effects would therefore not occur.

SEA Objective	Effect significance	Description of potential cumulative effects
Material Assets	+/-	The updated TS policies have the potential to interact with other plans, including the Transport East Transport Strategy, the LTP4, NSIPs, and any plans and policies leading to construction work and/or development of infrastructure. There is potential for positive cumulative effects of the TS policies and other plans through improvement of the transport network. These plans could utilise recycled and recyclable materials, contributing to a circular economy and helping to meet net zero targets. It is assumed that the options will all seek the efficient use of land, utilising brownfield land and minimising loss of agricultural land where possible and appropriate, in line with national planning policies. Improvements to transport infrastructure and the built environment will also result in positive cumulative effects on Material Assets, through improving the resilience of critical infrastructure to Climate Change. In the short-term, the delivery of development set out in the TS policies and other plans will require resources, including materials, during construction. In line with national and local planning it is assumed that any proposals would seek to encourage the efficient and appropriate use of resources, including the use of sustainable materials, and reuse of existing materials, in support of a circular economy, where appropriate. Due to the scale of development and likely amount of resource required, significant negative cumulative effects have been identified.

The assessment of inter plan cumulative effects identified potential for significant positive cumulative effects against five of the 12 SEA Objectives; Population & Equalities, Human Health, Economy & Employment, Community Safety, and Climate Change & Greenhouse Gases. Positive cumulative effects have been identified due to the delivery of a more reliable and sustainable transport network and improved active travel routes as part of a modal shift to a net zero transport network. Development associated with the TS policies and other plans and strategies brings opportunity to improve sustainability, and improve the setting of the public realm and surrounding environment. For the remaining seven SEA Objectives, minor positive cumulate effects have been identified.

Significant negative cumulative effects have been identified for Biodiversity & Natural Capital, Water Environment, Air Quality and Material Assets. These plans may involve major infrastructure works and land take, that could result in a significant amount of construction, leading to disturbance to biodiversity and wildlife, damage to the water environment, reduction in air quality within AQMAs and a significant amount of material use and land take. Significant effects are due to the assumed scale of development and amount of resource required to support the TS policies, and development associated with other plans and strategies.

For the remaining SEA Objectives, minor negative cumulative effects have been identified due to the potential for overlapping construction periods, and developments to be in close proximity to one another. However, it is assumed that in line with national and local planning policy any proposals would seek to avoid and minimise impacts, therefore, residual significant effects are unlikely.

5 ASSESSMENT OF ALTERNATIVES

5.1 Introduction

The SEA Regulations require an assessment of the plan, and its reasonable alternatives, taking into account the objectives and the geographical scope of the plan. The assessment of the alternatives does not need to take into account all possible alternatives, only those that are realistic.

5.2 Identifying Alternatives

As stated above, for any alternatives to be reasonable, they need to meet the objectives of the plan, which are set out in **Section 2**. Individual interventions/ measures cannot be considered a reasonable alternative in and of themselves, as they would not meet the objectives for the plan as a whole.

Reasonable alternatives have been provided at the Policy level, outlining alternative pathways to meet the objectives of the TS. **Table 5-1** provides a summary of the reasonable alternative options identified for the TS.

Table 5-1 – Proposed Alternatives for the TS

Policy	Proposed Alternative	Reasonable/Unreasonable
1	- To not work in partnership with other councils and instead act in isolation - To do nothing and accept what comes as part of the development process with the understanding that it may not fully meet the LTP objectives or objectives of overarching strategies	- Unreasonable - Reasonable
2	- To not actively seek to improve strategic connections - To do nothing and continue with a business as usual approach, with no purposeful improvements to strategic connections	- Unreasonable - Reasonable
3	- To focus only on public transport/active travel - To focus only on private vehicles	- Reasonable - Reasonable
4	To do nothing and continue with a business as usual approach, with no involvement from NCC in bus services	Reasonable

Policy	Proposed Alternative	Reasonable/Unreasonable
5	To do nothing and continue with a business as usual approach, with no involvement from NCC in rail services	Reasonable
6	To do nothing and continue with a business as usual approach for active travel	Unreasonable
7	To take a business as usual approach with no policy specifically for King's Lynn, responding only when damage has occurred due to climate change and severe weather events	Reasonable
8	■ To do nothing and continue with a business as usual approach whereby emissions are likely to be reduced by technological advances and the market ■ To not work in partnership with other councils and instead act in isolation	■ Reasonable ■ Unreasonable
9	To do nothing and only react to new data or accidents	Unreasonable
10	To continue with a business as usual approach by fulfilling the statutory role to not damage structures and not actively seek to enhance culture, heritage or tourism in King's Lynn	Reasonable

Alternatives considered unreasonable were screened out at this point, and those considered reasonable were taken forward for assessment through the SEA process, alongside the TS Policies.

5.3 Assessment of Alternatives

Table 5-2 summarises the findings from the assessment of the reasonable alternatives. The full assessment can be found in **Appendix D**.

Table 5-2 –Assessment of Reasonable Alternatives summary

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 1: Supporting growth and new development	+/-	+/-/?	-	+	+/-	+/-	-	+/-	+/-	+/-	+/-	++/-/?
Policy 2: Strategic connections	0	0	+	0	0	0	0	0	0	+/-	0	0
Policy 3: Parking	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-/?
Policy 4: Bus services	+	0	+	+	+	+/-	+/-	+	+/-	+/-	+/-	0
Policy 5: Rail	0	0	0	0	0	0	0	0	0	0	0	0
Policy 6: Active travel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SEA Objective Policy	Population & Equalities	Human Health	Economy & Employment	Community Safety	Biodiversity & Natural Capital	Landscape & Townscape	Historic Environment	Water Environment	Air Quality	Climate Change & Greenhouse Gases	Noise	Material Assets
Policy 7: Climate change resilience	+	+	0	0	0	0	0	0	+/-	+	+/-	0
Policy 8: Improved air quality	+	+	0	0	+	+	+	+	+	+	0	0
Policy 9: Road traffic harm reduction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Policy 10: Supporting culture, heritage and tourism	+	+	0	0	+/-	+/-	+/-	0	0	0	0	0

5.3.1 Policy 1: Supporting growth and new development

The reasonable alternative for Policy 1 is to do nothing and accept what comes as part of the development process with the understanding that it may not fully meet the LTP objectives or objectives of overarching strategies. This differs from Policy 1 which seeks for NCC to work in partnership to ensure transport measure, including sustainable transport measures, support new housing developments and employment sites.

Assessment of the reasonable alternative policy identified one significant negative effect against the SEA Objectives Material Assets. Significant negative effects were identified due to the potential impacts of new infrastructure and the potential to lose the region's best and most versatile land.

A significant positive effect was identified against the Material Assets Objective due to the potential of using sustainable materials during construction, improving resource efficiency and supporting a circular economy. There is also an opportunity to redevelop brownfield land and reduce resource use.

The remaining Objectives scored mixed minor positive and negative effects, with some uncertainty, with the exception of economy and employment and historic environment, which both scored a minor negative effect. Negative effects were identified due as the transport network may not be able to keep up with population growth without the necessary transport measures, and protection of the historic environment is unlikely to be incorporated into all development.

5.3.2 Policy 2: Strategic connections

The reasonable alternative for Policy 2 is to do nothing and continue with a business as usual approach, with no purposeful improvements to strategic connections. This differs from Policy 2 which aims for NCC to work in partnership to improve strategic connections, specifically along the A47, A149, and key roundabouts, as well as the town centre gyratory system and rail and bus services, between King's Lynn and the surrounding area.

Assessment of the reasonable alternative policy identified no significant positive or negative effects against any of the SEA Objectives. For 10 of the 12 SEA Objectives, neutral effects were identified as a business as usual approach, with no purposeful improvements to strategic connections, would not require any construction related to transport infrastructure, and would therefore have little-to-no effect on the SEA Objectives.

However, for the Climate Change & Greenhouse Gases Objective, mixed uncertain effects were identified as the Borough has an Air Quality Action Plan in place, outlining measures to be taken regarding EV charging infrastructure. Due to this, it is likely that the alternative would also result in positive effects against this SEA Objective, and negative effects due to construction, though the magnitude of this is uncertain.

Minor positive effects were identified for the Economy & Employment objective due to likely improvements to strategic connections along the A47 resulting from the Government's Road

Investment Strategy. This may improve accessibility to the town centre and employment sites within KL&WN.

5.3.3 Policy 3: Parking

The reasonable alternative for Policy 3 is to either focus only on public transport/active travel or to focus only on private vehicles. This differs from Policy 3 which seeks for NCC to work in partnership with BCKL&WN to deliver a parking strategy that balances the needs of the town with supporting the promotion of public transport and active travel, acknowledging the importance of EV infrastructure and parking provision.

Assessment of the reasonable alternative policy identified five significant negative effects against the SEA Objectives Biodiversity & Natural Capital, Water Environment, Air Quality, Climate Change & Greenhouse Gases, and Material Assets. Significant negative effects were identified due to the potential for loss of best and most versatile agricultural land in construction of parking facilities, encouraging private vehicle usage and the potential construction works which would impact air quality and the water environment.

No significant positive effects were identified, however minor positive, minor negative, and uncertain effects were identified throughout the assessment. Uncertainties are due to the uncertain nature of the scale and scope of transport measures and construction-related activities.

5.3.4 Policy 4: Bus services

The reasonable alternative for Policy 4 is to do nothing and continue with a business as usual approach, with no involvement from NCC in bus services. This differs from Policy 4 which aims to support bus operators to deliver quicker, reliable, integrated, convenient and accessible journeys.

Assessment of the reasonable alternative policy identified no significant positive or negative effects against any of the SEA Objectives.

For the majority of SEA Objectives, minor positive effects were identified due to the Bus Service Improvement Plan (BSIP) which will likely lead to quicker and more reliable bus journeys in the area. This is likely to lead to positive effects, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale.

A number of minor negative effects were also identified due to potential negative effects if additional buses are put in place, or new routes are running near sensitive receptors.

5.3.5 Policy 5: Rail

The reasonable alternative for Policy 5 is to do nothing and continue with a business as usual approach, with no involvement from NCC in rail services. This differs from Policy 5 which seeks for NCC to work with stakeholders to carry out improvements to King's Lynn Railway Station, improving the line for both passengers and freight.

Assessment of the reasonable alternative policy identified no significant positive or negative effects against any of the SEA Objectives.

For the 12 SEA Objectives, neutral effects were identified as a business as usual approach would likely result in no changes to rail services and associated infrastructure, and no subsequent effects for all of the objectives.

5.3.6 Policy 6: Active travel

No reasonable alternative for Policy 6 was identified.

5.3.7 Policy 7: Climate change resilience

The reasonable alternative for Policy 7 is to take a business as usual approach with no policy specifically for King's Lynn, responding only when damage has occurred due to climate change and severe weather events. This differs from Policy 7 which aims for NCC to work in partnership to make the transport network net zero by 2050, and increase its resilience to climate change and severe weather events.

Assessment of the reasonable alternative policy identified no significant positive or negative effects against any of the SEA Objectives.

For the SEA objectives Population and Equalities, Human Health, and Climate Change & Greenhouse gases minor positive effects were identified due to Norfolk County Council's 2023 Climate Strategy which aims to improve sustainable travel across Norfolk. This is likely to improve connectivity and accessibility across KL&WN, alongside reducing greenhouse gases and improving air quality. Although the benefits are likely to be realised at a much lesser scale than with the policy.

Mixed effects were identified for the SEA objectives air quality and noise due to potential improvements as a result of Norfolk County Council's 2023 Climate Strategy. However, minor negative effects were identified due to the potential construction works which would impact air and noise quality.

5.3.8 Policy 8: Improved air quality

The reasonable alternative for Policy 8 is to do nothing and continue with a business as usual approach whereby emissions are likely to be reduced by technological advances and the market. This differs from Policy 8 which will seek to reduce emissions from vehicles to improve air quality. Measures may include retrofitting vehicles with equipment to reduce emissions and promoting transport electrification.

Assessment of the reasonable alternative policy identified no significant positive or significant negative effects against any of the SEA Objectives. However, minor positive effects were identified for eight SEA Objectives. The reasonable alternative is likely to result in some improvements to air quality within the KL&WN area, however, the changes would likely be realised at a slower pace than with implementation of Policy 8.

5.3.9 Policy 9: Road traffic harm reduction

No reasonable alternative for Policy 9 was identified.

5.3.10 Policy 10: Supporting culture, heritage, and tourism

The reasonable alternative for Policy 10 is to continue with a business as usual approach by fulfilling the statutory role to not damage structures and not actively seek to enhance culture, heritage or tourism in King's Lynn. This differs from Policy 10 which seeks to protect existing green infrastructure and enhance the public realm for the benefit of residents, visitors and tourists using a healthy streets approach to make streets attractive and work for all users of the network.

Assessment of the reasonable alternative policy identified no significant positive or negative effects against any of the SEA Objectives.

For the SEA Objectives Population & Equalities and Human Health, minor positive effects were identified due to the Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan which include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity.

For the SEA Objectives Biodiversity & Natural Capital, Landscape, Seascape and Townscape, and Historic Environment, mixed effects were identified. Minor positive effects were identified due to potential improvements to the public realm as part of the Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan. Minor negative effects were identified due to the potential construction which may result in negative effects through disturbance and increased noise and air pollution.

The remaining SEA Objectives were identified as having neutral effects.

5.4 Outline Reasons for Selection or Rejection of Alternatives

For the ten policies contained within the TS, reasonable alternative policies have been identified where possible and assessed under the SEA Framework. For policies 6 and 9, the suggested alternatives were not considered reasonable and therefore have not been assessed under the SEA Framework.

Many of the reasonable alternatives propose a 'business as usual' approach, with no implementation or improvement of transport measures and are therefore unlikely to yield the same results. A number of minor positive, minor negative, uncertain, and neutral effects have been identified, alongside a small number of significant negative effects.

Where positive effects or outcomes have been identified for the reasonable alternatives, it is likely to be realised at a lesser scale than with the transport strategy, and they have therefore not been selected.

6 MITIGATION AND MONITORING

6.1 Introduction

This section sets out proposed monitoring measures and explains the next steps in the SEA process for the TS.

6.2 Mitigation and Monitoring

The SEA Regulations require that measures are considered to prevent, reduce or offset any significant adverse effects on the environment of implementing the plan, the TS in this instance. The measures are known as ‘mitigation’ measures. Mitigation measures include both proactive avoidance of adverse effects and actions taken after potential effects are identified

It is likely that potential significant negative effects can be avoided or reduced through adherence to best design guidance, appropriate planning and best construction practice at project level. As specific interventions under the TS policies are developed further by the organisations responsible for their delivery, it is expected that best design and industry practice, and relevant legislative requirements will be considered from the outset and throughout.

This is important not only in terms of compliance but also as they have cost, programme and risk implications. Key legislative and policy requirements, without providing an extensive list, include:

- Conservation of Habitats and Species Regulations 2017 as amended (known as the Habitats Regulations). Under these regulations, competent authorities must carry out an assessment, known as a habitats regulations assessment (HRA), to test if a plan or project proposal could significantly harm the designated features of a nationally designated site
- Environmental Impact Assessment legislative requirements which are enacted in the UK through different legislative instruments depending on the nature of the scheme and consenting mechanism.
- Water Framework Directive assessment where applicable to protect the UK’s water environments by preventing their deterioration and improving their quality.
- Biodiversity Net Gain legislative and policy requirements as part of the UK Government targets towards halting biodiversity loss and delivering environmental enhancements:
- Halt the decline in species abundance by 2030, and then increase abundance by at least 10% to exceed 2022 levels by 2042.
- Protecting 30% of land and 30% of ocean to be protected by 2030.

Table 6-1 below sets out some proposed monitoring measures for consideration. As there is some uncertainty with some of the elements of the plan's Objectives, Policies, and Targets, and what impact they may have on the SEA Objectives, the monitoring measures may be updated to reflect any additional impacts.

Table 6-1 – Proposed Mitigation/Enhancement Measures

SEA Objective	Mitigation/Enhancement Measure	Mechanism
Biodiversity & Natural Capital	■ In line with mandatory BNG requirements, transport interventions must implement biodiversity net gain and make use of the natural capital approach to ensure environmental net gain ■ Infrastructure schemes should incorporate design measures to lessen the impact on biodiversity and ensure biodiversity net gain. ■ Consideration needs to be given to the potential effects of construction of developments (noise, vibration and air pollution) on biodiversity. ■ Interventions should aim to minimise soil disturbance and to retain as many ecosystem services as possible through careful soil management during the construction process. ■ Interventions should consider impacts on international, national and local important sites (including sites such as SACs, National Landscapes, National Parks, SSSIs and Ramsar sites). This includes the potential impacts of noise, air and light pollution.	Project level design and assessment
Air Quality	■ Consideration needs to be given to the potential effects of construction of developments (noise, vibration and air pollution) ■ Interventions should consider impacts on Air Quality Management Areas. ■ Infrastructure schemes should incorporate design measures to lessen the impact on air quality.	Project level design and assessment

SEA Objective	Mitigation/Enhancement Measure	Mechanism
Material Assets	- Any form of construction and operation should be undertaken as sustainably as possible, making use of tools and processes, such as circular economy, waste hierarchy and should consider BREEAM and BREEAM Infrastructure. - Consideration at all stages should be given to the waste hierarchy, for example, prioritising reuse and recycling and reducing use of virgin materials - Sustainable design and construction techniques should be promoted, such as low energy lighting and opportunities for renewable energy regeneration. - All interventions should consider climate change resilience and adaptation from early design. - Where land take is required, preference should be given to brownfield land/ previously developed land and avoidance of the best and valuable land	Project level design and assessment

Table 6-2 – Proposed Monitoring Measures

SEA Objective	Key Performance Indicators	Targets
Population and Equalities	Improving accessibility and inclusivity of the transport network	Increase the number of users of all stated routes, by sustainable transport and active travel.
Human Health	Enabling healthy behaviours and improving wellbeing by monitoring physical activity levels Utilisation of transport route to essential services and green space/green infrastructure, and the network of footpaths in the rural part of the county.	Increase the number of users of active travel infrastructure across the region.

SEA Objective	Key Performance Indicators	Targets
Economy & Employment	Condition of local highways. Reliability of the transport network.	DfT road conditions data. Reducing number of delays and improving punctuality of public transport.
Community Safety	Improving transport safety and security.	A decrease in reported accidents associated with roads and the wider transport network. A 33% reduction in KSIs from current levels.
Biodiversity & Natural Capital	Biodiversity net gain achieved through implementation of the plan. Condition of designated sites e.g. SSSI's, SAC's, SPA's, etc.	No deterioration, or loss of coverage, of designated habitats and safeguarded areas to contribute towards 2030 UK biodiversity targets.
Landscape and Townscape	Area of landscapes and townscapes benefiting from conservation and enhancement measures resulting from plan interventions.	No loss or damage to the Norfolk Coast National Landscape or National Character Areas due to interventions.
Historic Environment	The number of historic assets (statutory and non-statutory) negatively affected by the interventions. The number of historic assets (statutory and non-statutory) benefitting from conservation and enhancement measures resulting from plan interventions. The number of visitors to historic assets.	No historic assets negatively affected by the interventions. Increased number of visitors to the historic environment.

SEA Objective	Key Performance Indicators	Targets
Water Environment	Condition of designated and undesignated waterbodies.	No deterioration of water quality in local waterbodies.
Air Quality	Increase use of zero and low emission vehicles. Tackling climate change and protecting and enhancing the natural and built environment - Clean Air Number of locations that exceed legal NOx limit - Air Quality annual monitoring reports	Reducing carbon emissions from transport and investing in EV infrastructure. No locations exceeding the NOx legal limit.
Climate Change & Greenhouse Gases	Carbon emissions from transport. Number of publicly available EV charge points.	For all relevant interventions to incorporate suitable climate change resilience and mitigation measures. To increase publicly available EV charging infrastructure.
Noise	Local noise monitoring.	Not exceeding permitted noise levels and no addition of new Noise Important Areas.
Material Assets	Utilisation of circular economy principles to reduce the amount of additional waste during construction.	Utilisation and uptake of recycled/re-used materials where possible. Maximising use of brownfield land.

7 NEXT STEPS

7.1 Next Steps

This Environmental Report is presented for public consultation alongside the Draft TS. The representations received will be documented and considered in reviewing the proposals for the TS. Following this, a Post Adoption Statement will be produced that summarises how the SEA and the consultation responses have been taken into account and how social, economic and environmental considerations have been integrated into the final decisions regarding the TS and will be issued as soon as is reasonably practicable after adoption.

This SEA Report will be issued to consultees for consultation alongside the draft SIP between 24th September and 5th November 2025.

Table 7-1 – Next steps

SEA and TS Stages	Timescales
SEA Report and TS Consultation	24 th September – 5 th November
SEA and TS Updates	5 th November – January 2026
TS Adoption	March 2026
SEA Post Adoption Statement	Following adoption

Appendix A

Quality Assurance Checklist



The Government's Guidance on SEA⁷ contains a quality assurance checklist to help ensure that the requirements of the SEA Directive are met. Those requirements relevant to the scoping stage of the SEA of draft Drought Plan have been set out in **Table A-1** below.

Table A-1 – Quality Assurance Checklist

Checklist	Evidence
The plan's or programme's purpose and objectives are made clear.	The plan's purpose and objectives are set out in Section 1.4 .
Environmental issues and constraints, including international and EC environmental protection objectives, are considered in developing objectives and targets.	Key environmental issues identified through a review of relevant plans and programmes and analysis of baseline conditions (see Appendix B) have informed the development of the assessment framework presented in Section 3.2 .
SEA objectives, where used, are clearly set out and linked to indicators and targets where appropriate.	Section 3.2 presents the SEA Objectives and guide questions.
Links with other related plans, programmes and policies are identified and explained.	A review of relevant plans and programmes is contained at Appendix B .
Conflicts that exist between SEA objectives, between SEA and plan objectives and between SEA objectives and other plan objectives are identified and described.	The plan's purpose and objectives are set out in Section 1.4 .
Consultation Bodies are consulted in appropriate ways and at appropriate times on the content and scope of the Environmental Report.	The SEA Scoping Report was consulted upon and responses to this are included in this Environmental Report (see Appendix C).
The assessment focuses on significant issues.	Environmental issues have been identified in the baseline analysis contained in Appendix B of this Environmental Report on a topic-by-topic basis. Section 3.2 summarises the key issues identified.
Technical, procedural and other difficulties encountered are discussed; assumptions and uncertainties are made explicit.	Section 3.5 details limitations of the data used in the Environmental Report, as well as general difficulties and assumptions.
Reasons are given for eliminating issues from further consideration.	The proposed scope of the assessment is set out in Appendix B . In this instance none of the topic areas have been scoped out of the assessment.

⁷ Office of the Deputy Prime Minister (2005) *A Practical Guide to the Strategic Environmental Assessment Directive*.

Checklist	Evidence
Realistic alternatives are considered for key issues, and the reasons for choosing them are documented.	All options were assessed as set out in Sections 4 and 5 and Appendix D of this report.
Alternatives include 'do minimum' and/or 'business as usual' scenarios wherever relevant.	A 'do minimum' and/or 'business as usual' scenario has been assessed as an alternative for the TS policies where relevant
The environmental effects (both adverse and beneficial) of each alternative are identified and compared.	This is included in Section 5 and Appendix D of this report.
Inconsistencies between the alternatives and other relevant plans, programmes or policies are identified and explained.	No inconsistencies were identified.
Reasons are given for selection or elimination of alternatives.	This is set out in Section 5.4 of this report.
Relevant aspects of the current state of the environment and their likely evolution without the plan or programme are described.	Appendix B to this Environmental Report characterises the current environmental baseline conditions, along with how these are likely to change in the future.
Environmental characteristics of areas likely to be significantly affected are described, including areas wider than the physical boundary of the plan area where it is likely to be affected by the plan.	Throughout Appendix B of this Environmental Report, reference is made to areas which may be affected by the draft Transport Strategy although it should be noted that until the plan measures have been determined, it is not possible to determine with certainty those areas that are likely to be most affected by the plan.
Difficulties such as deficiencies in information or methods are explained.	Section 3.5 details limitations of the data used in the Environmental Report and assumptions made.
Effects identified include the types listed in the Directive (biodiversity, population, human health, fauna, flora, soil, water, air, climate factors, material assets, cultural heritage and landscape), as relevant; other likely environmental effects are also covered, as appropriate.	The potential effects of the options are identified in Sections 4 and 5 and Appendix D .
Both positive and negative effects are considered, and the duration of effects (short, medium or long-term) is addressed.	The nature and duration of potential effects has been set out in the detailed assessment matrices contained in Appendix D of this report.
Likely secondary, cumulative and synergistic effects are identified where practicable.	Information on secondary, cumulative and synergistic effects is set out in Section 4.3 . Where identified, effects are also set out in the detailed assessment matrices contained in Appendix D of this report.

Checklist	Evidence
Inter-relationships between effects are considered where practicable.	These relationships are identified where appropriate in the detailed assessment matrices contained in Appendix D of this report.
The prediction and evaluation of effects makes use of relevant accepted standards, regulations, and thresholds.	Relevant standards have been used where appropriate in undertaking the assessment.
Methods used to evaluate the effects are described.	Information on the methods used for evaluation of potential effects is included in Section 3 and in the detailed assessment matrices contained in Appendix D of this report. The definitions of significance used in the assessment are set out in Section 3.3 .
Measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the plan or programme are indicated.	Mitigation measures for potential negative effects are set out in Section 6 .
Issues to be taken into account in project consents are identified.	Issues to be taken into account in project consents are included in the appraisal matrices in Appendix D .
Is clear and concise in its layout and presentation.	We believe the report is clear and concise.
Uses simple, clear language and avoids or explains technical terms.	The report uses accessible language wherever possible.
Uses maps and other illustrations where appropriate.	Maps and illustrations have been utilised in the report.
Explains the methodology used.	The method used is set out in the report in Section 3 .
Explains who was consulted and what methods of consultation were used.	Appendix C of this report outlines the consultation that has been carried out to-date.
Identifies sources of information, including expert judgement and matters of opinion.	Sources of information are included throughout the report.
Contains a non-technical summary covering the overall approach to the SEA, the objectives of the plan, the main options considered, and any changes to the plan resulting from the SEA.	An Executive Summary has been included as part of the report.
The SEA is consulted on as an integral part of the plan-making process.	The previously issued SEA Scoping Report was consulted upon and responses are included in this Environmental Report (see Appendix C).

Checklist	Evidence
Consultation Bodies and the public likely to be affected by, or having an interest in, the plan or programme are consulted in ways and at times which give them an early and effective opportunity within appropriate time frames to express their opinions on the draft plan and Environmental Report.	Consultation on the draft TS and this Environmental Report will be undertaken by NCC.
The Environmental Report and the opinions of those consulted are taken into account in finalising and adopting the plan or programme.	This will be incorporated following consultation on draft TS and Environmental Report.
An explanation is given of how they have been taken into account.	This will be provided following consultation on the draft TS and Environmental Report.
Reasons are given for choosing the plan or programme as adopted, in the light of other reasonable alternatives considered.	This will be set out following consultation on the draft TS and Environmental Report.
Measures proposed for monitoring are clear, practicable and linked to the indicators and objectives used in the SEA.	The report sets out the proposed approach to monitoring measures that NCC could use in Section 6 .
Monitoring is used, where appropriate, during implementation of the plan or programme to make good deficiencies in baseline information in the SEA.	The suggestions for monitoring are included in Section 6 of the report.
Monitoring enables unforeseen adverse effects to be identified at an early stage. (These effects may include predictions which prove to be incorrect.)	The suggestions for monitoring made in Section 6 are for NCC to act on, with monitoring taking place following implementation of the TS.
Proposals are made for action in response to significant adverse effects.	Mitigation methods are outlined for the preferred options in Section 6 of this report.

Appendix B

FINAL SCOPING REPORT





Norfolk County Council

Kings Lynn Transport Strategy Strategic Environmental Assessment

Revised Scoping Report





Norfolk County Council

Kings Lynn Transport Strategy Strategic Environmental Assessment

Revised Scoping Report

Type of document (version) Public

Project no. 70118741

Our Ref. No. 001

Date: September 2025

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Quality Control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3	Revision 4
Remarks	Internal Draft	Draft for NCC	Final for Consultation	Revised Report	Revised Report
Date	April 2024	April 2024	June 2024	October 2024	September 2025
Prepared by	Emily Astins	Emily Astins	Emily Astins	Emily Astins	EA
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Signature					
Project number	70118741	70118741	70118741	70118741	70118741
Report number					
File reference					

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Appendices

Appendix A

Review of Plans, Policies & Programmes

Appendix B

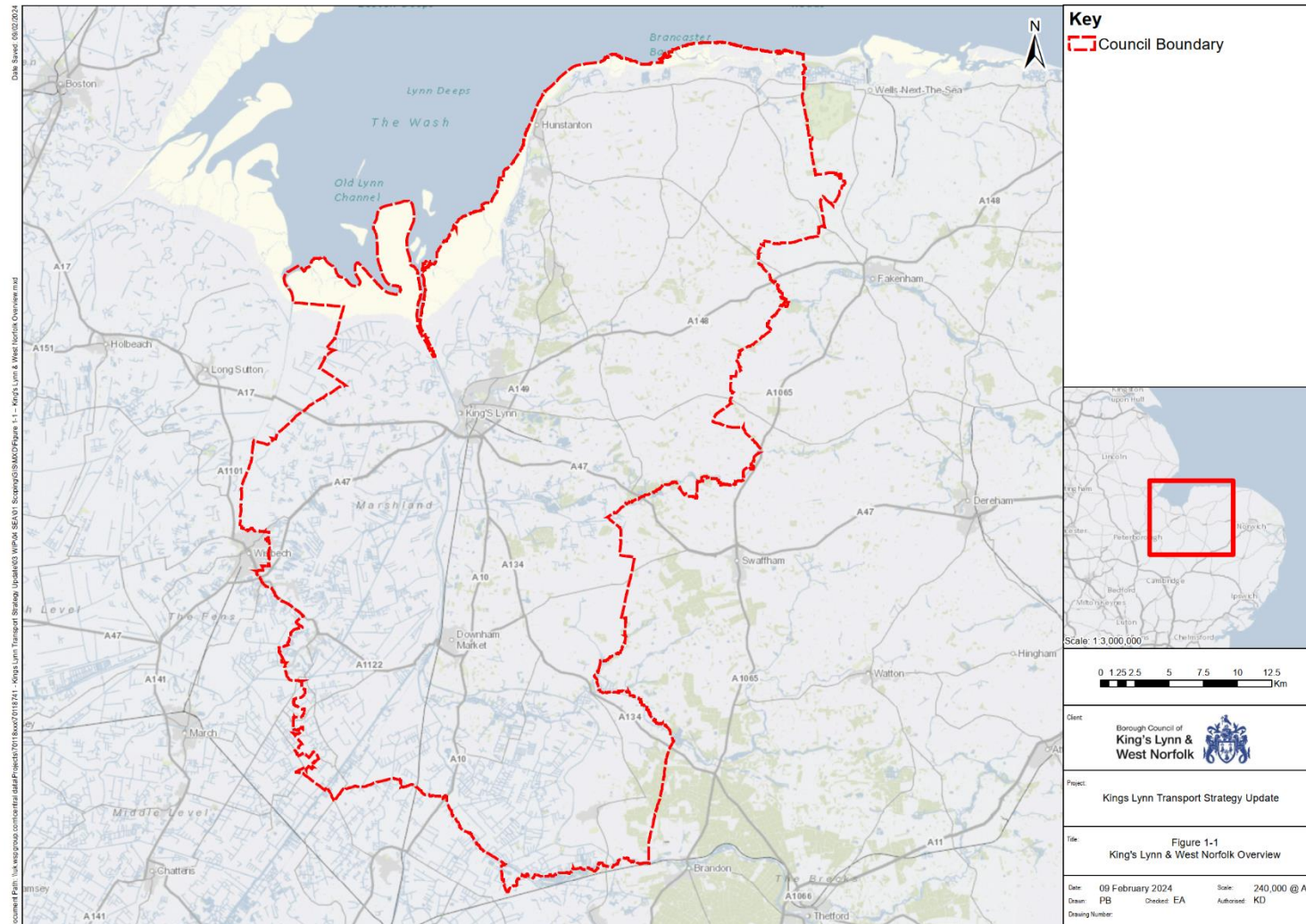
Figures

1 Introduction

1.1 Introduction

- 1.1.1. Norfolk County Council (NCC) has commissioned WSP UK Ltd (“WSP”) to undertake a Strategic Environmental Assessment (SEA) in support of the upcoming Transport Strategy (TS) for the area of King’s Lynn, located within the administrative boundary of Borough Council of King’s Lynn and West Norfolk (BCKL&WN). The TS for King’s Lynn covers the following areas:
- King’s Lynn;
 - North Lynn;
 - South Lynn;
 - West Winch;
 - Gaywood;
 - North Wootton; and
 - South Wootton.
- 1.1.2. This Transport Strategy sets out the vision, objectives and short, medium and long-term transport improvements required to support the existing community of King’s Lynn and to assist in promoting economic growth in the area.
- 1.1.3. The Transport Strategy includes a range of strategic and local highway capacity improvement schemes alongside improvement schemes that could address issues with reliability on the existing bus network. These sit alongside the potential to make further improvements to the existing cycling and walking network to further support the already high mode share for journey to work for these active modes of travel
- 1.1.4. **Figure 1-1** sets out the BCKL&WN boundary.

Figure 1-1 - King's Lynn & West Norfolk Borough Council Boundary



1.2 Purpose of the SEA Scoping Report

- 1.2.1. SEA is used to describe the application of environmental assessment to plans and programmes in accordance with European Council Directive 2001/42/EC¹. The SEA Directive is enacted in England through the “Environmental Assessment of Plans and Programmes Regulations” (SI 2004/1633, known as the SEA Regulations)².
- 1.2.2. These Regulations place an obligation on local authorities to undertake SEA for certain plans and programmes which include local transport plans and strategies.
- 1.2.3. WSP has been appointed by Norfolk County Council (NCC) to assist with undertaking an SEA of the TS, see **Section 3.2** of this Report for more information. The SEA will ensure that sustainability considerations are fundamental to the TS.
- 1.2.4. This report sets out the first stage of the SEA process, known as scoping. The purpose of this stage is to define the scope of the SEA by:
 - Identifying likely options for the delivery of the Transport Strategy (**Section 2**);
 - Presenting the methodology and framework for undertaking the SEA (**Section 3**);
 - Reviewing current relevant legislation, plans and programmes baseline (**Section 4**);
 - Establishing the current and future environmental, social and economic baseline for the area (the future baseline representing the likely evolution of the current baseline without the TS) (**Section 5**);
 - Identifying key issues and opportunities for the TS (**Section 5**);
 - Identifying sustainability objectives to inform an overall framework for appraisal of options (**Section 6**); and
 - Setting out next steps (**Section 7**).
- 1.2.5. A scoping report for the NCC Local Transport Plan 4 was undertaken in 2020. Where possible, information from this has been used to inform this report.

1.3 Relationship with Other Processes

- 1.3.1. Under Article 6 (3) of the EU Habitats Directive as transposed into the UK law by the Habitats Regulations³, 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

¹ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment

² The Environmental Assessment of Plans and Programmes Regulations 2004

³ The Conservation of Habitats and Species Regulations 2017

(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 Habitats Regulations Assessment (HRA)]; and

- Is not directly connected with, or necessary to, the management of the site.

1.3.1. There are a number of SACs, SPA and Ramsar sites located within the BCKL&WN area which could be affected by the TS. These have been detailed in **Section 5.6 – Biodiversity**.

1.3.2. Guidance on the Habitats Directive⁴ 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.
- 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.
- 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.

1.3.1. The first stage of the Habitats Regulations Assessment (screening) will be undertaken as the TS develops. Stages 2 to 4 will be progressed when sufficient information is available to undertake them. The HRA screening will enable consideration of TS regarding likely significant effects on European sites, as required by the legislation.

⁴ [Managing and protecting Natura 2000 sites](#)

2 The Transport Strategy

2.1 Background

- 2.1.1. The UK Government has declared a climate emergency and became the first major economy in the world to pass laws committing to end its contribution to global warming by 2050 through the Climate Change Act 2008⁵. The Act was updated in 2019 to commit to zero emissions by 2045.
- 2.1.2. In line with the National agenda and urgent need to take climate action, BCKL&WN declared a climate emergency in 2021 (see **Section 5.11** for more details). BCKL&WN have brought forward their net zero target forward to 2035 from 2050.
- 2.1.3. Transport is currently the largest emitting sector of greenhouse gas (GHG) emissions, producing 24% of the UK's total emissions in 2020⁶. To address the contribution of transport to carbon emissions, the UK Government has committed to a ban on new petrol and diesel vehicle sales by 2035⁷. The modal shift to active and sustainable transport is predicted to significantly reduce role these emissions and car kilometres both nationally and locally.

2.2 Emerging Vision and Objectives

- 2.2.1. The proposed vision and objectives of the draft TS for BCKL&WN are listed below:

Vision

“To support sustainable economic growth in King’s Lynn by facilitating journey reliability and improved travel mode choice for all, whilst contributing to improve health, air quality, safety, and protection of the built and natural environment”

Objectives

- Enhance connectivity and accessibility for all within King’s Lynn;
- Encourage greater use of public transport in King’s Lynn;
- Encourage modal shift from private car to active travel in King’s Lynn;
- Support the delivery of planned housing growth and development in the Borough;
- Protect and enhance King’s Lynn’s heritage and cultural environment through place-making;
- Improve local air quality and King’s Lynn’s natural environment and reduce overall transport emissions; and
- Improve road safety in King’s Lynn.

⁵ HM Government Climate Change Act 2008

⁶ Department for Transport, Transport and environment statistics 2022

⁷ HM Government, Net Zero Strategy: Build Back Greener 2021

3 Approach to SEA

3.1 Introduction

- 3.1.1. The SEA 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.
- 3.1.2. 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, known as the SEA Regulations)².
- 3.1.3. An 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) Regulations⁸.

3.2 Strategic Environmental Assessment

- 3.2.1. SEA is an iterative process of gathering data and evidence, assessment of environmental effects, developing mitigation and monitoring measures and making recommendations to refine plans or programmes in view of the predicted environmental effects.
- 3.2.2. The approach adopted for the SEA of the TS follows that set out in the Practical Guide to SEA⁹ and the Planning Practice Guidance to SEA¹⁰. It involves the development of an assessment framework comprising a series of sustainability objectives, assessment criteria and indicators. This framework is developed from an understanding of environmental problems and opportunities identified through a review of existing baseline information and a review of other plans, programmes and environmental protection objectives relevant to the plan area (i.e. King’s Lynn & West Norfolk) and subject matter (transport).
- 3.2.3. The key stages of the SEA process are the following:
 - Stage A: Setting the context and objectives, establishing the baseline and deciding on scope (this stage);
 - Stage B: Developing and refining strategic alternatives and assessing their effects;
 - Stage C: Preparing the Environmental Report;

⁸ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

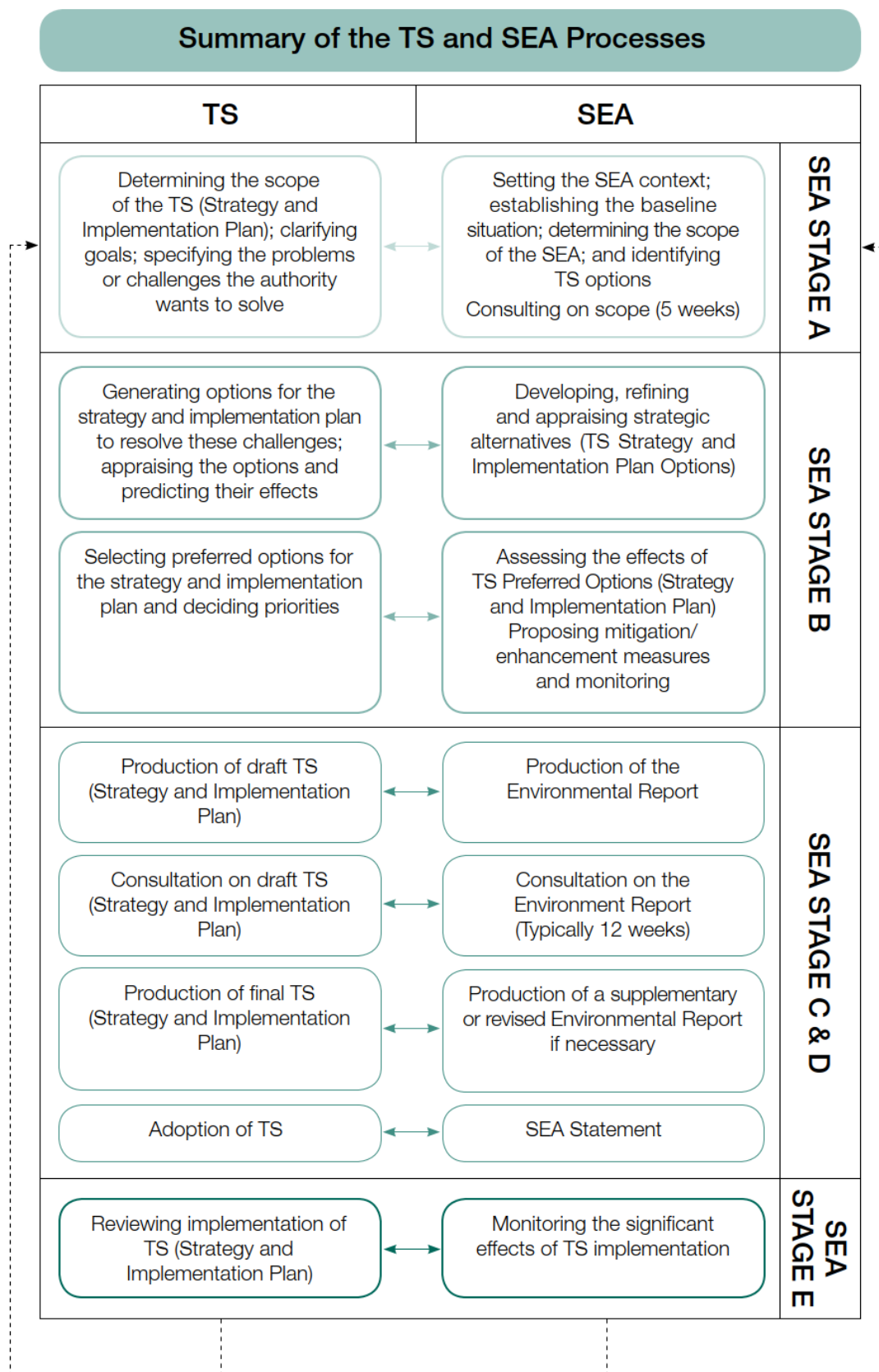
⁹ Office of the Deputy Prime Minister, A Practical Guide to the Strategic Environmental Assessment Directive 2005

¹⁰ Department for Communities and Local Government, Strategic environmental assessment and sustainability appraisal 2015

- Stage D: Consulting on the draft plan or programme and the Environmental Report; and
- Stage E: Monitoring the significant effects of implementing the plan or programme on the environment.

3.2.1. **Figure 3-1** overleaf outlines further details on these stages.

Figure 3-1 - SEA Process



4 Policy Context

- 4.1.1. Economic, social and environmental objectives relevant to the TS in international, national, regional and local governance have been reviewed to help establish the scope of the SEA.
- 4.1.2. Regulation 12(3), Schedule 2, Information for Environmental Reports of the SEA Regulations requires information on the following:
 - An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes (Schedule 2, Paragraph 1); and
 - The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation (Schedule 2, Paragraph 5).
- 4.1.3. The purpose of the review is to ensure the SEA complies with legislation and governance. The process entails identifying and reviewing environmental protection objectives that are directly relevant to both the TS and SEA.
- 4.1.4. The scoping task of identifying related legislation, policies and plans cannot yield an exhaustive or definitive list. The review has therefore been focussed to ensure only policies that are current and of direct relevance to the TS and sustainability are included.
- 4.1.5. A detailed outline of the policy documents, objectives and targets reviewed is set out in **Appendix A. Table 4-1** below outlines the key messages of the review. The review provides the context for the SEA and helps to inform the SEA Framework of objectives (**Section 6**), which will guide the subsequent appraisal process.

Table 4-1 – Key Messages from Policy Review

IIA 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 Strategy should provide regional infrastructure that drives productivity, supports economic prosperity and sustainable public services. ■ The delivery of new developments should not be of detriment to the interests of existing communities. ■ Projects and proposals should help to improve social value by providing opportunity, addressing inequality, tackling the climate crisis and improving life chances. ■ There is a need to: • Reduce inequalities in care (both physical and mental) across and within communities that cause disparities; • 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 ageing 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.
Human Health	■ 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. ■ 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.

IIA Topic	Key Messages from Review
Economy and Employment	■ The National Planning Policy Framework (NPPF) states that planning policies should recognise and address the specific locational requirements of different sectors, which includes making provision for clusters or networks of knowledge and data-driven, high technology industries in suitably accessible locations; ■ Working with businesses and infrastructure owners is necessary to develop proposals that meet the needs of the freight and logistics sector; and ■ Continued investment in the transport infrastructure is an essential part of post-pandemic economic recovery. ■ There is a need to: • Promote a low carbon, green economy; • Create the conditions for growth; • Provide conditions for a thriving education sector; • Support the sustainable growth and expansion of businesses; and • Deliver increased economic growth and decreased emissions.
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; • Work towards the vision that no road user should be killed or seriously injured on the roads of King's Lynn & West Norfolk; and • Reduce transport related crime and the fear of crime, as well as encourage reporting.
Biodiversity and Natural Capital	■ Requirement for new developments to minimise adverse impacts on biodiversity and provide net gains in biodiversity where possible. ■ There is a need to: • Identify opportunities for green infrastructure (GI) provision, recognising the multiple functions that GI provides to the area and linking into regional and national GI 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.

IIA Topic	Key Messages from Review
Landscape and Townscape	■ The delivery of new developments should not have adverse impacts on the quality of the natural and built environment. ■ There is a need to: • Conserve and enhance the quality and distinctiveness of natural landscapes and seascapes, including National Landscapes and National Parks, in ways that allow them to continue to evolve; and • Provide greater access to greenspace, to help reconnect people to nature.
Historic Environment	■ The delivery of new developments should not have adverse impacts to the historic environment. ■ There is a need to: • Conserve and enhance the significance of designated and non-designated heritage assets as well as those which are undesignated; • Enhance the beauty of the natural scenery and improving its environmental value while being sensitive to considerations of its heritage; • Encourage engagement with the historic environment; and • Ensure that transport development adjacent, or in close proximity to, designated heritage assets (Conservation Areas, Listed Buildings, Scheduled Monuments and Registered Parks and Gardens), non-designated heritage assets and archaeological remains, respects their character and setting, and does not detract from the quality of the built environment.
Water Environment	■ Water resources in the region 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; • Avoid development in areas prone to flooding; and • Ensure that infrastructure is resilient to the impact of climate change and sea level rise.

IIA Topic	Key Messages from Review
Air Quality	■ Air pollution increases the risks of diseases such as asthma, respiratory and heart disease, particularly for those who are more vulnerable such as the very young and the elderly or those with existing health conditions; ■ The impacts of poor air quality are not distributed evenly across the population; and ■ Additional opportunities to improve air quality or mitigate impacts should be identified, such as GI provision and enhancement. ■ 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; and • Encourage active and sustainable travel options that use clean energy will help reduce air pollution.
Climate Change and Greenhouse Gases	■ Take all possible action to mitigate climate change, while adapting to reduce its impact; and ■ Avoid increased vulnerability to the range of impacts arising from climate change. ■ There is a need to: • Reduce emissions of greenhouse gases that may cause climate change; • Increase energy efficiency and move towards a low carbon economy; • Ensure that infrastructure is resilient to the impacts of climate change; and • Support the transition to electric vehicles (EV), especially in light of the ban on new petrol and diesel vehicles in the UK by 2035, by scaling up the EV charging infrastructure.
Noise	■ 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.

IIA Topic	Key Messages from Review
Material Assets	■ The delivery of new developments should not have adverse impacts on soils, land stability, or resources. ■ There is a need to: • Facilitate the sustainable supply and use of minerals and minimise impacts on soil quality, considering any mitigation measures proposed; • Maintain and enhance geodiversity through the management of sites, areas and wider landscapes; and • Consider land stability in respect of new development; and encourage a circular economy.

5 Baseline, Issues and Opportunities

5.1 Introduction

- 5.1.1. This section sets out the key baseline information for each of the SEA topics, as well as anticipated future trends without the implementation of the TS. It also identifies key issues and opportunities for sustainability in relation to TS, which have been used to develop an appraisal framework in **Section 6**.

5.2 Population and Equalities

Summary of Current Baseline

- 5.2.1. King's Lynn & West Norfolk ("KL&WN") has a total population of approximately 154,300 people¹¹, a 4.6% increase since 2011¹², which is lower than the national average increase of 6.6%. The highest proportion of people in the borough are aged between 55-59 years who make up over 7.4% of the total population. The percentage of those aged 65 and over (25.9%) exceed the national average of 18.4%. The 70-74 age bracket experienced the largest growth between 2011-2021 at 34.0%, suggesting that there is a growing older population in KL&WN.
- 5.2.1. KL&WN has a population density of 107 people per square kilometre (km²)¹¹. This is lower than both the East of England (regional) and England (national) averages of 331 people per km² and 434 people per km² respectively. **Figure B-1** in **Appendix B** shows the population density across the borough. Approximately 59% of the population of KL&WN live in rural areas.
- 5.2.2. Within the borough approximately 51% of the population are female and 49% are male, which is equivalent to both the regional and national averages of 51% and 49% for females and males respectively.
- 5.2.3. Overall, the ethnic make-up of KL&WN is much less diverse compared to the national average¹³. Of the resident population, 95.7% identified themselves as White, 1.9% identified as Asian, 1.3% as Mixed or Multiple ethnic groups, 0.5% as Black, and 0.7% as 'Other'.
- 5.2.4. The majority of the residents within KL&WN are Christian (52.4%), followed by no religion (39.5%), Muslim (0.5%), Other (0.5%), Buddhist (0.3%), Hindu (0.3%), Jewish (0.1%), and Sikh (0.1%)¹⁴. However, 6.3% of people did not answer the Census question about religious belief.

¹¹ Office for National Statistics, Population and household estimates, England and Wales, Census 2021

¹² Office for National Statistics, King's Lynn and West Norfolk population change, Census 2021

¹³ Office for National Statistics, Ethnic Group, England and Wales, Census 2021

¹⁴ Office for National Statistics, Religion, England and Wales, Census 2021

- 5.2.5. Looking at the Indices of Multiple Deprivation (IMD) 2019¹⁵, KL&WN contains neighbourhoods covering the entire deprivation spectrum, ranging from 10% most deprived to 10% least deprived. In terms of overall deprivation, KL&WN was ranked 79th out of 326 Local Authority Districts (LADs) in 2019 (1 being the most deprived and 326 the least deprived), with 97 Lower Super Output Areas (LSOAs) in the most 10% deprived nationally. These most deprived areas are particularly concentrated in King's Lynn town centre (see **Figure B-2 in Appendix B**).

Future Baseline

- 5.2.1. Population projections by the Office for National Statistics suggest that, by 2050, those aged 65 and over will make up 24.7% of England's total population. By 2032, it is anticipated that more people will be living on their own, making up 40% of all households nationally. The number of over 85s living alone is expected to more than double to 1.4 million nationally in which social isolation could become a more prevalent issue.
- 5.2.2. This could become a significant issue in KL&WN, where 18.4% of the population are currently over 65, and may be further exacerbated by the number of people living rurally. The old age dependency ratio¹⁶ in KL&WN is expected to rise by 12.8% in 2035, compared to just a 0.4% increase in the working age population over the same period¹⁷.
- 5.2.3. In 2016, 14% of the working age population in the UK were from ethnic minority backgrounds¹⁸. This is increasing, with the proportion expected to rise to 21% by 2051. The working population in KL&WN is likely to become increasingly diverse, as indicated by this national trend.
- 5.2.4. The highest rate of overall deprivation in King's Lynn town centre creates a unique set of challenges for transport. There are multiple factors that can contribute to this distribution including a lack of service provision, limited accessibility and opportunity, and poor digital connectivity.
- 5.2.1. Implementing the strategy would provide opportunities for the dispersion of population growth through providing infrastructure and improving access to wider areas of KL&WN with lower population growth. This will also help to support community cohesion and reduce isolation, particularly amongst the elderly and those living rurally.

¹⁵ Ministry of Housing, Communities and Local Government, Indices of Multiple Deprivation 2019

¹⁶ The Old Age Dependency Ratio (OADR) is a ratio of the population who are of current State Pension age (SPA) and higher relative to the size of the population aged 16 years and over and under SPA.

¹⁷ Office for National Statistics, Population of State Pension age and working age, and old age dependency ratios, for local authorities and regions in England

¹⁸ The Kings Fund (2012) Demography: Future Trends

Issues and Opportunities

5.2.2. The following issues and opportunities have been identified in **Table 5-1** below.

Table 5-1 – Issues and Opportunities for Population and Equalities

Key Issues & Opportunities	Considerations for the TS
■ Transport issues affect different groups to varying extents, and there is evidence showing that the barriers to accessing and using transport can be exacerbated by age, ethnicity and gender. ■ The rural nature of large parts of KL&WN could pose significant challenges in providing good services for all residents. There will, therefore, be a need for increased access to transport. ■ The population of KL&WN is predicted to increase in number resulting in a change in the age profile. ■ Changing work habits such as remote, internet-based jobs and working from home are likely to reduce transport demand, but may also increase social isolation, which could increase reliance on alternative social interaction. ■ With an increasing ageing population in KL&WN, there is likely to be additional strain on the area's services and infrastructure; this is likely to be exacerbated with a higher-than-average number of people living in rural areas. ■ The change in working habits has also affected traditional 5/2-day shift patterns for public transport with one in 10 local bus services in the UK cancelled in 2022¹⁹.	■ There are opportunities to improve access to rural areas through transport services, digital services and bringing services to people. ■ 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. ■ The TS should seek opportunities to improve connectivity in the rural areas of KL&WN.

¹⁹ [The Guardian \(2023\) Almost one in 10 local bus services axed over last year in Great Britain](#)

5.3 Human Health

Summary of Current Baseline

- 5.3.1. The average life expectancy (at birth) across KL&WN is slightly higher than the regional average (80.3 years for males and 83.7 years for females) and the national average (79.6 years for males and 83.2 years for females) for both males and females at 80.0 years and 82.8 years respectively²⁰. Life expectancy is 7.3 years lower for men and 2.9 years lower for women in the most deprived areas of KL&WN than in the least deprived areas.
- 5.3.2. The percentage of physically active adults is much lower in KL&WN when compared with regional and national averages. Levels below the national average of 66.3%, and regional average of 65.4% are recorded, at 55.5%²⁰. The percentage of adults who are classified as overweight or obese is slightly higher than, but in line with, the regional average and national average of 62.1% and 62.0% respectively, with 62.3% of adults (18+) classified as overweight or obese. In Year 6 children across KL&WN, 21.7% are classified as obese, higher than the regional and national average of 18.0% and 20.2% respectively.
- 5.3.3. Public Health England describe the health of people in KL&WN as varied compared with the England average. This is reflected in the Health Deprivation and Disability Domain of IMD 2019¹⁵, where KL&WN is ranked 63rd out of 151 upper tier authorities nationally (where a rank of 1 is the most deprived and 151 is the least deprived). This domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health. **Figure B-3 in Appendix B** shows health deprivation across KL&WN.
- 5.3.4. Poor air quality is a significant public health issue and there is clear evidence that particulate matter has a significant contributory role in mortality. Each year in the UK between 28,000 and 36,000 deaths a year are attributed to long-term exposure to poor air quality²¹. 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.
- 5.3.5. There are two Air Quality Management Areas (AQMAs) located in KL&WN (see **Section 5.10** for more details) that identify areas of higher air pollution that may affect health, particularly in the vicinity of AQMAs.

²⁰ [Public Health England, King's Lynn and West Norfolk Local Authority Health Profile 2019](#)

²¹ [Gov.uk \(2019\) Public Health England publishes air pollution evidence review](#)

- 5.3.6. KL&WN has a higher mortality rate from COPD at 48.0 people per 100,000 when compared to the regional average of 37.9 people per 100,000 and the national average of 42.8 people per 100,000²².
- 5.3.7. 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.
- 5.3.8. According to Age UK, the majority of the people aged 65 and over in KL&WN are within very low and low risk areas for loneliness with areas in the UK ranked from 1 high risk to 32,844 very low risk²³. However, the areas of Denton, Downham, Emneth with Outwell, St Lawrence, Spellowfields and King's Lynn have areas of high risk and very high risk of loneliness.
- 5.3.9. The proportion of people within KL&WN who are considered disabled under the equality act (day-to-day activities limited a lot) is significantly lower than the national average (17.7%) at 7.7%²⁴.

Future Baseline

- 5.3.10. The ageing population in KL&WN is expected to continue to grow in the future, which may cause strain on the transport system due to rising inequalities in access to healthcare, community facilities and other services.
- 5.3.11. A population with a larger proportion of older people will likely result in an increase in the number of people in KL&WN with physical and sensory impairments which could result in a greater demand for access to health and social care services.
- 5.3.12. The anticipated population growth and the increasing affordability and convenience of car travel is likely to result in an increase in the number of private vehicles on the roads. This could have subsequent cumulative effects on air quality, noise pollution and public health if current trends continue.
- 5.3.13. The rising cost of living, or 'Cost-of-Living Crisis', is also predicted to impact those with pre-existing mental health problems, as they are among those at greatest risk²⁵. It is well

²² [Public Health England, Inhale - Interactive Health Atlas of Lung conditions in England](#)

²³ [Age UK \(2016\) Risk of Loneliness in England](#)

²⁴ [Office for National Statistics, Disability in England and Wales, Census 2021](#)

²⁵ [Mental Health Foundation \(2023\) Mental Health and the Cost-of-Living Crisis: Another pandemic in the making?](#)

documented that recessions increase social inequalities, which are drivers of poor mental health²⁶.

- 5.3.14. 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.
- 5.3.15. Air pollution has been linked to diabetes and dementia – both chronic illnesses in the UK are expected to rise in future. Increased mortality and morbidity amongst diabetics is associated with increased nitrogen dioxide concentrations with long term exposure to traffic borne air pollution positively correlating with incidence of type two diabetes and increased mortality among diabetics²⁷.
- 5.3.16. In 2023, the government enacted the Levelling Up and Regeneration Act²⁸, setting out a broad approach to rebalancing the UK economy and addressing significant regional inequalities that restrict people, places, and prosperity. The Levelling Up and Regeneration Act has the potential to reduce inequalities, improving health outcomes. Working towards becoming a Marmot Community could help to reduce health inequalities across KL&WN both now and in the future, in order to achieve six common goals as set out in Professor Sir Michael Marmot's original report from 2010²⁹:
 1. Give every child the best start in life
 2. Enable all children, young people and adults to maximise their capabilities and have control over their lives
 3. Create fair employment and good work for all
 4. Ensure healthy standard of living for all
 5. Create and develop healthy and sustainable places and communities
 6. Strengthen the role and impact of ill-health prevention
- 5.3.17. Without the TS, it is likely that health issues related to transport within the borough will continue to persist, and without further intervention dimensions of health such as activity and social isolation may continue to deteriorate. The strategy would allow for KL&WN to improve access to community services, greenspaces and sports/ recreational facilities to the

²⁶ Wahlbeck, K. & McDaid, D. (2012), 'Actions to alleviate the mental health impact of the economic crisis', *World Psychiatry*

²⁷ *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*

²⁸ [Legislation.gov.uk \(2023\) Levelling Up and Regeneration Act 2023](https://www.legislation.gov.uk/ukpga/2023/1/contents/enacted)

²⁹ *Fair Society, Healthy Lives, 'The Marmot Review', 2008*

areas where access to health and community services is poor. This will also help to support community cohesion and reduce isolation.

Issues and Opportunities

5.3.18. The following issues and opportunities have been identified in **Table 5-2** below.

Table 5-2 – Issues and Opportunities for Human Health

Key Issues & Opportunities	Considerations for the TS
■ The population of the area is ageing; older people may not have access to appropriate forms of private transport to access healthcare, community, and social care facilities. ■ There are high levels of physical inactivity and obesity across KL&WN. ■ Social isolation can lead to loneliness which has the potential to undermine well-being thereby impacting negatively on people's quality of life. ■ There are higher levels of loneliness in rural areas than urban areas. ■ Addressing poor air quality within KL&WN should be an important element of the strategy and action plan.	■ The TS should maximise opportunities to enhance walking and cycling routes and encourage the use of active travel. This will help to improve both access and levels of physical activity within the borough. ■ There will be an ongoing need to provide inclusive services in order to meet the needs of older residents. ■ There will be a need to improve public transport users' confidence in returning to public transport post-COVID. ■ Transport must become accessible and affordable for all that live and work in the borough to reduce inequalities and impacts of the rising cost of living. ■ Health funding could help deliver active transport initiatives. ■ There were 3.5 million disabled people in work in 2017, with the Government aiming to increase this to 4.5 million by 2027. By helping more disabled people into work, this will enable people to reach their potential and to achieve economic independence.

5.4 Economy and Employment

Baseline

- 5.4.1. World-leading businesses in pharmaceuticals, precision and aerospace engineering and advanced manufacturing sectors including commercial refrigeration, robotics, electronics and specialist chemicals are located in KL&WN. King's Lynn is a centre of excellence for the design and manufacture of commercial refrigeration, with the top two companies in the UK, Foster Refrigeration and Williams Refrigeration, headquartered there³⁰.
- 5.4.2. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages of 61.6% and 62.9% respectively¹¹.
- 5.4.3. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. KL&WN has a relatively low number of jobs compared to its size. Job density³¹ within KL&WN is recorded as 0.80 which is slightly lower than the regional average of 0.84 and the national average of 0.85³². KL&WN's labour market is fairly self-contained, with relatively low levels of in-and-out commuting.
- 5.4.4. KL&WN has an economic inactivity of 16.6%, lower than the rate of 19.4% in the region and 21.2% in the UK³³. Economic inactivity is mainly attributed to a high number of people in retirement (22.1%)³⁴.
- 5.4.5. As of 2023, there are 5,655 active businesses in KL&WN, comprising just 2.1% of businesses in the East of England region³⁵.
- 5.4.6. shows KL&WN's key economic sectors compared to regional and national averages. Wholesale and retail trade; repair of motor vehicles and motorcycles and human health and social work activities are the largest economic sectors in KL&WN, with a higher employment rate than both the regional and national averages.

³⁰ [Invest in King's Lynn & West Norfolk, Case Studies](#)

³¹ The ratio of total jobs to population aged 16-64.

³² [Nomis, Labour Market Profile - King's Lynn And West Norfolk](#)

³³ Jan 2023-Dec 2023 data.

³⁴ Apr 2022-Mar 2023 data.

³⁵ [Office for National Statistics, UK business: activity, size and location](#)

Table 5-3 – Employment by Economic Sector in King’s Lynn & West Norfolk³²

Industry	King’s Lynn & West Norfolk (%)	East of England (%)	England (%)
B : Mining And Quarrying	0.1	0.0	0.2
C : Manufacturing	12.3	7.4	7.6
D : Electricity, Gas, Steam And Air Conditioning Supply	0.2	0.2	0.4
E : Water Supply; Sewerage, Waste Management And Remediation Activities	0.8	0.8	0.7
F : Construction	7.0	6.7	4.9
G : Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles	17.5	15.5	14.0
H : Transportation And Storage	3.5	5.6	5.0
I : Accommodation And Food Service Activities	10.5	7.9	8.0
J : Information And Communication	1.1	3.6	4.6
K : Financial And Insurance Activities	2.6	2.4	3.3
L : Real Estate Activities	1.6	1.9	1.9
M : Professional, Scientific And Technical Activities	3.5	8.0	9.1
N : Administrative And Support Service Activities	7.0	11.0	9.0
O : Public Administration And Defence; Compulsory Social Security	3.5	3.5	4.7
P : Education	7.9	8.7	8.6
Q : Human Health And Social Work Activities	17.5	12.4	13.5

Industry	King's Lynn & West Norfolk (%)	East of England (%)	England (%)
R : Arts, Entertainment And Recreation	1.8	2.2	2.4
S : Other Service Activities	0.9	1.7	2.0

5.4.7. KL&WN boasts a rich historical and cultural heritage (see **Section 5.8** for more details), making it an attractive destination for tourists. The visitor sector continues to develop as a major growth sector bringing both economic benefits and reputational advantages. Major tourist attractions in the borough include:

- King's Lynn Town Centre
- Castle Rising Castle
- Sandringham Estate
- Hunstanton Beach
- King's Lynn Festival
- RSPB Snettisham Nature Reserve
- Norfolk Lavender
- Holkham Hall and Estate
- Norfolk Coast Path

5.4.8. Norfolk County Council is part of the New Anglia Local Enterprise Partnership (LEP) to drive growth and enterprise in Norfolk and Suffolk³⁶. The LEP has added £1bn to the local economy over 10 years through its Business Growth Programme³⁷. The LEP's Growth Deal has enabled infrastructure projects to receive important funding, such as Lynnsport Access Road in King's Lynn which provided 4km of new road to allow 400 new homes³⁸.

Future Baseline

- 5.4.1. King's Lynn is a key service centre with the potential to be the driver for the economic well-being of the sub-region. At present, King's Lynn is underperforming in terms of services, the economy, housing and tourism, given its role as a significant centre.
- 5.4.2. The rising population in KL&WN is accelerating the need for the delivery of additional housing, services and infrastructure. Growth in jobs is also anticipated in order to close the

³⁶ [New Anglia, Local Enterprise Partnership for Norfolk and Suffolk](#)

³⁷ [New Anglia LEP \(2024\) Lasting legacy left by New Anglia LEP as functions are transferred to county councils](#)

³⁸ [New Anglia, Lynnsport Access Road in King's Lynn](#)

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

- 5.4.3. During and since the COVID-19 pandemic homeworking has been encouraged for those who are able, leading to a short-term reduction in travel demand. This trend will likely continue as employers look to maintain flexible working conditions in future. In addition, peak periods for traffic congestion are likely to change with less people commuting for work. Public transport will need to adapt to these altered working and lifestyle patterns and encourage more passengers.
- 5.4.4. Without the implementation of the TS, it is likely that increasing pressure will be placed on KL&WN's roads, with rising vehicle numbers likely. This is likely to increase journey time for commuters, particularly to places of employment, as well as limit economic growth within the tourism sector. The introduction of the TS presents an opportunity to provide the availability of alternative transport modes for commuters and tourists.

Issues and Opportunities

- 5.4.5. The following issues and opportunities have been identified in **Table 5-4** below.

Table 5-4 – Issues and Opportunities for Economy and Employment

Key Issues & Opportunities	Considerations for the TS
■ If employment remains more concentrated in urban centres, this could put increased pressure on transport systems as commuting distances increase. ■ The working age population is lower than the average. ■ Retirement is one of the main factors contributing to economic inactivity in the borough. ■ There is a low density of jobs within KL&WN compared to regional and national averages.	■ KL&WN is in a prime location for new and existing businesses; however, it is currently not well connected to other parts of the UK, especially by rail. Therefore, the TS provides an opportunity to improve these connectivity gaps. ■ There is the potential to improve connectivity between business which will help to improve access to the skills pool as well supporting improvements in productivity. ■ 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.

5.5 Community Safety

Baseline

- 5.5.1. On average across KL&WN, 53.3 people (per 100,000 resident population) are killed or seriously injured (KSI) on the borough's roads each year, higher than the regional average (46.7 people per 100,000 resident population) and the national average (42.6 people per 100,000 resident population)²⁰.
- 5.5.1. According to the Department for Transport (DfT), in 2022, 75% of fatalities and 62% of casualties of all severities in Great Britain were male³⁹. In addition, 25% of fatalities and 29% of casualties were aged 17 to 29 years old and 23% of fatalities and 7% of casualties were aged 70 years old and over. In Norfolk, 56.6% of all casualties of all severities in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old⁴⁰. Just 11.5% of all casualties were aged over 70.
- 5.5.2. During the same time period, 46% of fatalities on Great Britain's roads were car occupants, 22% were pedestrians, 21% were motorcyclists and 5% were pedal cyclists.
- 5.5.1. The East of England is among the top 5 safest regions in England. The overall crime rate in the East of England in 2022 was 74 crimes per 1,000 people, and the most common crimes were violence and sexual offences, which happened to roughly every 33 out of 1,000 residents⁴¹.
- 5.5.2. The borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year⁴². The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, 59% higher than both the Norfolk (county) and East of England (regional) averages (74 per 1,000 residents)⁴³.
- 5.5.1. Crime deprivation is one of seven domains that combine to produce the overall Index of Multiple Deprivation (IMD) and measures the risk of personal and material victimisation at local level. Levels of crime deprivation are relatively low in KL&WN, ranking 252nd out of 317 local authorities within the UK (an indicator of 1st being the most deprived neighbourhood, and 317 being the least deprived neighbourhood)¹⁵. These are shown in **Figure B-4** in **Appendix B**.
- 5.5.2. In 2021/22, the number of reported sexual offences committed on public transport in the UK decreased by 7.3% from 2019/20 (52.3% of these assaults were against females). The

³⁹ [DfT \(2023\) Reported road casualties Great Britain, provisional results: 2022](#)

⁴⁰ [Department for Transport, Road traffic statistics](#)

⁴¹ [CrimeRate, East of England Crime Safety Statistics](#)

⁴² [varbes, Crime in King's Lynn and West Norfolk](#)

⁴³ [CrimeRate, King's Lynn, Norfolk Crime and Safety Statistics](#)

number of drug offences increased by 8.7% to 3,114 in 2021/22 (93% of these being possession of controlled drug)⁴⁴.

Future Baseline

- 5.5.1. The number of people killed or seriously injured on the roads in KL&WN is higher than the regional and national averages. 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.
- 5.5.2. National Highways has set a target to reduce the number of people KSI on the strategic road network by at least 50% by the end of 2025 against the 2005-2009 baseline, with a clear long-term goal to bring the number of people killed or injured on the network as close as possible to zero by 2040⁴⁵.
- 5.5.3. The Office for Rail and Road's annual assessment in 2020 reported that this target was met, with an estimated 905% of travel on roads rated at least 3-star in 2019⁴⁶. This could help contribute to a reduction in serious road accidents in KL&WN.
- 5.5.4. The TS presents an opportunity to reduce the number of accidents on roads in KL&WN and reduce the number of people KSI. The improvement of routes for pedestrians and cyclists may contribute to reductions in anti-social behaviour through improving the public realm and lighting improvements.
- 5.5.5. Without the TS, there may be missed opportunities to incorporate designing out crime principles which reduces the vulnerability of people and property to crime by removing opportunities that may be provided inadvertently by the built environment. It also aims to reduce fear of crime and, in doing so, helps to improve people's quality of life.

Issues and Opportunities

- 5.5.6. The following issues and opportunities have been identified in **Table 5-5** below.

Table 5-5 – Issues and Opportunities for Community Safety

⁴⁴ British Transport Police, Statistical Bulletin 2021/22

⁴⁵ Highways England (2020) Highways England Delivery Plan 2020-2025

⁴⁶ Office of Rail and Road (2020) Annual Assessment of Highways England End of Road Period 1 2015-2020

Key Issues & Opportunities	Considerations for the TS
- Crime on public transport in the UK is on the rise, particularly with regards to sexual assault, violent crimes and disruption. - As the population within KL&WN increases there are expected to be a greater number of vehicles on the borough's roads, which may result in an increase in the number of accidents and those KSI on roads. - Children in the most deprived neighbourhoods are nearly three times more likely to be KSI as a pedestrian compared to non-deprived neighbourhoods⁴⁷. - There are opportunities to increase the safety of active transport modes such as cycling and walking. - Vulnerable road users such as cyclist and pedestrians are more likely to be casualties. In KL&WN, males aged 17 to 29 years old are also more likely to be casualties.	- There are opportunities for TS proposals to include designing out crime principles, particularly in those areas with high crime rates and crime deprivation. - There is a need to engage with communities and encourage the reporting of crimes as well as ensuring safety for all transport users. - The TS should seek opportunities to increase the safety of active transport modes such as cycling and walking. - The strategy should support the implementation of the Road Safety Strategy and a Safe Systems approach. - There are also opportunities to improve safety on public transport across the borough, especially for women. - The TS will need to ensure improvements to transport networks, including improving lighting, to ensure safety on networks.

5.6 Biodiversity & Natural Capital

Baseline

- 5.6.1. There are a large range of nationally and locally designated sites⁴⁸ within the borough of KL&WN including:
- 29 Sites of Special Scientific Interest (SSSI); and
 - 5 National Nature Reserves (NNR).
- 5.6.2. In addition to these there are numerous internationally designated sites within KL&WN, outlined below in
- 5.6.3. . For example, the Wash is an example of the habitat *Sabellaria spinulosa* reef, which is of European significance⁴⁹, and Ouse Washes is the largest washland in the UK, a habitat which supports a range of waterfowl and wading birds⁵⁰.

⁴⁷ [Centre for Transport Studies, Road Safety Research Briefing 1: Children and Traffic: Those in deprived areas still at disproportionate risk](#)

⁴⁸ [Natural England, Designated Sites View](#)

⁴⁹ [Natural England, Designated Sites View. The Wash and North Norfolk Coast SAC](#)

⁵⁰ [RSPB, Ouse Washes Nature Reserve](#)

Table 5-6 – International Designations in KL&WN

Ramsar	Special Area of Conservation (SAC)	Special Protection Areas (SPA)
■ The Wash ■ North Norfolk Coast ■ Dersingham Bog ■ Roydon Common ■ Ouse Washes	■ The Wash & North Norfolk Coast ■ North Norfolk Coast ■ Roydon Common & Dersingham Bog ■ River Wensum ■ Norfolk Valley Fens ■ Ouse Washes	■ The Wash ■ North Norfolk Coast ■ Ouse Washes ■ Breckland

5.6.4. All designated sites are shown on **Figure B-5 in Appendix B**.

5.6.1. 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 2006⁵¹. Priority habitats are a focus for conservation action in England. These habitats include (but are not limited to) coastal saltmarsh, coastal sand dunes, intertidal mudflats, saline lagoons, lowland calcareous grassland, lowland heathland, reedbeds, and lowland mixed deciduous woodland. The region’s coastal habitats are particularly important, but it also contains some areas of ancient and semi-natural woodland, which are a valuable resource. As well as providing ecologically rich habitats for wildlife, woodlands play an important role in flood amelioration, soil conservation, carbon storage and climate regulation, recreation and tourism.

5.6.2. The UK National Ecosystem Assessment (UK NEA)⁵² revealed that the loss, fragmentation and deterioration of natural habitats in the UK since the 1940s has caused a decline in the provision of many ecosystem services.

5.6.3. **Table 5-7** shows KL&WN’s species richness data according to the Natural Environment Valuation Online (NEVO) tool⁵³.

⁵¹ Natural Environment and Rural Community 2006. Available online at: <https://www.legislation.gov.uk/ukpga/2006/16/contents>

⁵² UK National Ecosystem Assessment (2011) The UK National Ecosystem Assessment Technical Report. UNEP-WCMC, Cambridge.

⁵³ [University of Exeter, Natural Environment Valuation Online tool \(NEVO\)](#)

Table 5-7 – Species Richness in KL&WN⁵³

Species	King's Lynn & West Norfolk
Plants	19 / 38
Invertebrates	13 / 25
Birds	13 / 17
Mammals	12 / 14
Lichen	1 / 5
Herptiles	1 / 1
Total	59 / 100

- 5.6.1. The NEVO tool also indicates that out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. Due to the high cover of agricultural land, food provision is an important ecosystem service within KL&WN. 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.
- 5.6.2. Natural capital is a key theme in the Government's 25-year Environment Plan: A Green Future⁵⁴. The UK's natural capital accounts⁵⁵ show that approximately 20-25 million tonnes of carbon have been sequestered by vegetation in the UK each year between 2007 and 2015, whilst around 1.5 million tonnes of air pollutants have been removed each year. This equates to a monetary value of approximately £1.5 billion for carbon sequestration and £1 billion for pollution removal in 2015. In 2020, air pollution accounted for £2.4 billion of regulating services and led to an estimated 2,001 deaths being avoided and prevented 49,126 life years being lost⁵⁶. Natural capital therefore has a mitigating effect on the emissions of carbon and air pollutants associated with transport.

⁵⁴ [A Green Future: Our 25 Year Plan to Improve the Environment \(2018\)](#)

⁵⁵ [Office for National Statistics \(2019\) UK natural capital accounts: 2019](#)

⁵⁶ [Office for National Statistics \(2023\) UK natural capital accounts: 2022](#)

Future Baseline

- 5.6.3. The 2023 State of Nature Report⁵⁷ highlights the general decrease in biodiversity in the UK. Since 1970, species abundance has decreased by 193% and species distribution has decreased by 135%. Of the 8,431 species that have been assessed using the International Union for Conservation of Nature (IUCN) Regional Red List criteria, 16.15% are currently threatened with extinction from Great Britain and 2% are already extinct. A rising population and associated need for development may cause further loss, fragmentation and degradation of habitats, causing a further decline in biodiversity.
- 5.6.4. Climate change presents another threat to ecosystem services and biodiversity. Current IPCC⁵⁸ predictions for temperature increases are expected to be 2°C by the middle of the 21st century. This increase in temperature is expected to lead to increases in flooding events and northward colonisation of species in the UK. In order to preserve biodiversity and natural habitats, soft engineering and nature-based solutions will need to be used over traditional hard engineering.
- 5.6.5. The Environment Act 2021⁵⁹ specifies a mandatory 10% increase in biodiversity net gain (BNG) for new developments. This has applied since February 2024 for developments⁶⁰ that fall under the Town and Country Planning Act 1990⁶¹, and from 2025 will apply to Nationally Significant Infrastructure Projects (NSIPs). Biodiversity on development sites will need to be preserved, with additional mitigation put in to increase biodiversity.
- 5.6.6. This increase in biodiversity may be provided on site enhancement, or through off-site compensation. As part of this, counties are required to undertake Local Nature Recovery Strategies (LNRS). Strategies must agree priorities for recovery and identify the most valuable existing areas for nature, as well as areas which could become of particular importance, or where the recovery or enhancement of biodiversity could make a particular contribution to other environmental benefits. Norfolk County Council and Suffolk County Council received funding in 2023 to prepare a LNRS for their respective counties⁶².
- 5.6.7. BCKL&WN is a member of the Norfolk Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy (GIRAMS) strategic partnership, which aims to ensure no adverse effects are caused to European sites across Norfolk, either alone or in-combination from qualifying developments⁶³. The Norfolk GIRAMS sets out a strategic, cross-boundary approach to mitigating the in-combination effects of development on these designated areas and allows strategic mitigation to be delivered across Norfolk, funded via developer contributions.
- 5.6.8. 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

⁵⁷ [NBN \(2023\) State of Nature Report](#)

⁵⁸ [IPCC \(2022\) Climate Change 2022: Impacts, Adaptation and Vulnerability](#)

⁵⁹ [Environment Act \(2021\)](#)

⁶⁰ Unless exempt. The law will apply to small developments from April 2024.

⁶¹ [Town and Country Planning Act 1990](#)

⁶² [Norfolk County Council \(2023\) Norfolk and Suffolk councils given authority and funding to help nature's recovery](#)

⁶³ [Borough Council of King's Lynn & West Norfolk, Habitat Mitigation \(GIRAMS\)](#)

roadside habitats (including trees) to reduce these impacts. Even with the transition towards electric vehicles, particulate emissions are predicted to be problematic into the future due to the impacts of non-exhaust emissions.

- 5.6.9. However, there is also an increasing trend amongst governments and businesses to be “Future Ready”, which includes addressing issues surrounding biodiversity, resource use, and climate change. Investing in natural capital and delivering resilient nature-based solutions is an effective way of addressing these issues simultaneously. As such, the multiple benefits that arise from taking a natural capital approach significantly contribute to sustainable development, often at lower cost than more conventional infrastructure⁶⁴.
- 5.6.10. There are opportunities that will help to conserve and enhance biodiversity and natural capital, and which would be expected to continue without the TS. However, there is potential that without the TS some sites and habitats could be threatened by development of infrastructure in inappropriate locations. The TS may also provide opportunities to increase biodiversity and natural capital assets including implementing green infrastructure (GI) along transport corridors.

Issues and Opportunities

- 5.6.11. The following issues and opportunities have been identified in **Table 5-8** below.

Table 5-8 – Issues and Opportunities for Biodiversity & Natural Capital

⁶⁴ [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](#)

Key Issues & Opportunities	Considerations for the TS
■ There are a wide range of statutory local, national and international sites designated for nature conservation across KL&WN, 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.	■ TS presents opportunities to be strategic in the enhancement of biodiversity at the landscape scale through the use of GI and biophilic design. These can be combined with priorities for wider ecosystems services benefits to deliver landscape wide environment gain for biodiversity and people. ■ The TS present 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 TS. ■ Views of vegetation from other modes of transport (e.g. along roads and railways) can also enhance mental wellbeing, for example by reducing stress levels. ■ 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.

5.7 Landscape, Seascape & Townscape

Baseline

5.7.1. An Area of Outstanding Natural Beauty (AONB), now referred to as a National Landscape, is a designated landscape whose distinctive character and natural beauty are deemed precious enough to be safeguarded in the national interest. There is one National Landscape in KL&WN: Norfolk Coast. This is shown in **Figure B-6** in **Appendix B**. The key qualities of natural beauty of the Norfolk Coast are⁶⁵:

- Dynamic character and geomorphology of the coast;
- Strong and distinctive links between land and sea;
- Diversity and integrity of landscape, seascape and settlement character;
- Exceptionally important, varied and distinctive biodiversity, based on locally distinctive habitats;
- Nationally and internationally important geology;
- Sense of remoteness, tranquillity and wildness; and
- Richness of archaeological heritage and historic environment, particularly that relating to the coast and its character.

5.7.1. KL&WN falls within a number of Natural England's National Character Areas (NCAs)⁶⁶. These are defined in **Table 5-9** below. **Figure B-7** in **Appendix B** shows the boundaries of these NCAs.

Table 5-9 – National Character Areas (NCAs) in KL&WN⁶⁶

NCA	Description
46: The Fens	A distinctive, historic and human-influenced wetland landscape lying to the west of the Wash estuary, which formerly constituted the largest wetland area in England. The area is notable for its large-scale, flat, open landscape with extensive vistas to level horizons. The level, open topography shapes the impression of huge skies which convey a strong sense of place, tranquillity and inspiration.
76: North West Norfolk	An open, rolling topography which contrasts with the surrounding coastal, fenland and other lowland NCAs. This NCA is very important for agriculture with a large-scale arable and grassland landscape comprising extensive arable cropping and some areas of mixed farming.

⁶⁵ [Norfolk Coast Partnership \(2022\) Management Plan 2019-2024](#)

⁶⁶ [Natural England \(2014\) Corporate report: National Character Area profiles](#)

NCA	Description
77: North Norfolk Coast	The flat, low-lying, open and remote coastal plain dominates the North Norfolk Coast landscape. The muted, changing colours of the salt marsh and the marram grass amid the sand dunes and the shallow channels of glistening mudflats, tidal flats, shingle banks and sea defence banks provide a variety of texture and detail, behind which the sea meets the sky providing long, sweeping views out to sea where recently installed wind turbines can be seen up to wide open skies.
84: Mid Norfolk	The broadly flat, rural landscape of the Mid Norfolk NCA occupies the northern section of the East Anglian Plain, becoming more undulating to the north where it merges with the Central North Norfolk NCA in a curving line across the Wensum Valley, and more rolling towards Norwich to the east. This is ancient countryside with a long-settled agricultural character, where arable land is enclosed by winding lanes and hedgerows, interspersed with woodland and heath and dissected by lush pastoral river valleys. A patchwork of cultivated land, numerous church spires, distant wooded horizons and big skies dominate the landscape.
85: The Brecks	The Brecks NCA, also known as Breckland, lies at the heart of East Anglia, occupying much of south-western Norfolk and northwestern Suffolk, together with a small part of north-eastern Cambridgeshire. The area has an ages-old identity, a very particular land use history and a richly distinctive wildlife, which sets it apart from all surrounding landscapes. Its underlying chalk geology has produced a low, gently undulating plateau, largely covered with sandy soils of glacial origin.

5.7.2. Trees and woodlands are important features of the landscape. According to the BKL&WN Tree and Woodland Strategy⁶⁷ the total of Council owned green space in the Borough is 138 ha of which 9.7 ha are woodland. King's Lynn has 75.3 ha of which 6 ha are woodland. Key areas of woodland and open space in the borough include:

- Sandringham Country Park;
- Ling Common;
- Bawsey Country Park;
- White Hill Woods;
- Bradmoor Plantation;

⁶⁷ [BKL&WN Tree and Woodland Strategy, 2017](#)

- Shouldham Common;
- West Bilney Wood; and
- Ken Hill Wood.

- 5.7.3. The Norfolk Coast is visited annually by approximately 2.8 million people, with panoramic seascapes being a key feature of interest, particularly as 42.8 km of the KL&WN coast comprises the Norfolk Coast National Landscape⁶⁵. The flat, low-lying, open and remote coastal plain dominates the North Norfolk Coast landscape (refer to **Table 5-9**) and is one of the few remaining examples of relatively undeveloped and unspoilt coastal areas of this character.
- 5.7.4. Key settlements in the borough include King's Lynn, Downham Market, Hunstanton and Dersingham. Many settlements developed because of their strategic importance in relation to geographical features, such as river crossings or valleys in ranges of hills. King's Lynn originated as a trading settlement on the River Great Ouse and was one of England's foremost ports as early as the 12th century⁶⁸.

Future Baseline

- 5.7.1. Designated landscapes, such as National Landscapes, are given the highest status of protection against development within their boundaries to conserve their landscape and scenic beauty. However, they may still be impacted indirectly through changes to their setting and tranquillity due to increased traffic flows, change in land use, visitor pressure and light and noise pollution. Climate change will also put pressure on landscape and seascape designations as new pests and diseases emerge sea levels rise, and extreme weather increase the stresses on nature conservation. Ongoing pressures on public finances and the need to reduce both central and local authority budgets will continue to have a direct impact upon the management of designations.
- 5.7.2. Climate change will also put pressure on the designations as new pests and diseases emerge and extreme weather increasing stresses on nature conservation. Ongoing pressures on public finances and the need to reduce both central and local authority budgets will continue to have a direct impact upon the management of designated areas.
- 5.7.3. Landscape, seascape and townscape character and quality is under threat from future development (including the construction and operation of transport infrastructure) through, for example, loss of tranquillity, increased lighting, visual intrusion, and the incremental loss of landscape features and characteristic elements.
- 5.7.4. Similarly, pressures from expanding populations put more strain on existing systems, and more pressure on recreational landscapes and tourist attractions.

⁶⁸ [Historic UK, King's Lynn](#)

- 5.7.5. Without the TS there may be reduced opportunities for new infrastructure to enhance and support the local landscape and townscape character through, quality design, provision of GI and/or habitat creation. The TS presents an opportunity to support vitality and placemaking among KL&WN's townscapes through encouraging good design and incorporating of green infrastructure (GI).

Issues and Opportunities

- 5.7.6. The following issues and opportunities have been identified in **Table 5-10** below.

Table 5-10 – Issues and Opportunities for Landscape, Seascape & Townscape

Key Issues & Opportunities	Considerations for the TS
■ 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. ■ Future growth in some locations could risk compromising landscape, seascape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and physical and mental health of its people. ■ Climate change will also put pressure on the landscape and seascape designations as new pests and diseases emerge sea levels rise and extreme weather increasing the stresses on nature conservation.	■ 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). ■ The TS must consider the importance of landscape, seascape and townscape character when outlining options, ensuring development does not erode the quality and key characteristics of the landscape and townscape, and instead respects it. ■ There is potential for transport to improve access to the countryside, to promote sustainable tourism and to provide greater awareness of the Norfolk Coast National Landscape. ■ 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 assets through creating new views and vistas, providing information and enhancing access. ■ 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.

5.8 Historic Environment

Baseline

- 5.8.1. There are a number of designated assets throughout KL&WN including:
 - 129 Scheduled Monuments⁶⁹;
 - 1,546 Listed Buildings⁷⁰; and
 - Six Registered Parks and Gardens⁷¹.
- 5.8.2. More details of these can be seen in **Figure B-8** in **Appendix B**.
- 5.8.3. Local planning authorities are obliged to designate conservation for 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 48 conservation areas located in KL&WN⁷².
- 5.8.4. Historic England's Heritage at Risk (HAR) programme helps to understand the overall state of England's heritage sites. It identifies those sites that are most at risk of being lost as a result of neglect, decay or inappropriate development. In KL&WN there are 25 heritage assets on the HAR register⁷³.
- 5.8.5. Norfolk Coast National Landscape is also a rich archaeological resource, which was one of the key reasons for its designation. The National Landscape is rich in archaeological and historical sites, with remains and features dating back to the early Pleistocene⁷⁴. The Norfolk Coast has one of the most important archaeological sites in Europe, the Happisburgh footprints. These are the oldest known hominid footprints outside of Africa and mark the location of the first known human presence in Britain⁷⁵. The Bronze Age timber circle of Seahenge was also discovered at Holme-next-the-Sea⁷⁶.
- 5.8.6. Non-designated and unknown heritage assets may be present around Norfolk which may be of high value. These include, but are not limited to, locally listed buildings. The Norfolk Monuments Management project focuses on historic monuments that have no legal protection. Support is targeted on activities that have potential to harm heritage assets, including agricultural, drainage and forestry operations and heathland, river and pond/moat restoration⁷⁷.

⁶⁹ [Borough Council of King's Lynn & West Norfolk, Scheduled ancient monuments](#)

⁷⁰ [Borough Council of King's Lynn & West Norfolk, Listed buildings](#)

⁷¹ [Borough Council of King's Lynn & West Norfolk, Historic parks and gardens](#)

⁷² [Borough Council of King's Lynn & West Norfolk, Conservation areas](#)

⁷³ [Historic England, Heritage at Risk. East of England Register 2022](#)

⁷⁴ [Norfolk Coast Protected Landscape, Management Plan 2019-2024 \(Revised 2022\)](#)

⁷⁵ [Natural History Museum, Discovering the oldest human footprints in Europe](#)

⁷⁶ [Explore Norfolk UK, Seahenge](#)

⁷⁷ [Norfolk Heritage Explorer. The Norfolk Monuments Management Project, 2019](#)

Future Baseline

- 5.8.7. Protection of the historic environment is firmly embedded in national and local planning policy, and this has been the case since 1990. This policy has developed independently of the European Union and is unlikely to change with the Retained EU Law Bill. However, whilst direct (physical) impacts on designated historical sites are strongly restricted, adverse effects on the setting of designated heritage assets does still occur, for example relating to visual intrusion, or aspects such as traffic, lighting and noise.
- 5.8.8. Historic England provides specific guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes, set against the background of the NPPF and the related guidance given in the Planning Practice Guide (PPG). In addition to the visual setting, 'setting' can also include intangible characteristics such as sound, smells and historic associations / relationship.
- 5.8.9. One trend over the last few years which may well continue is the reduction in funding for Historic England and county and local authorities, with increased pressure on the case workload of Archaeological Officers, Conservation Officers and Historic England advisors. This can have an impact on the response times for the provision of planning advice.
- 5.8.10. The number of vehicles on the roads is likely to increase as KL&WN's population rises, increasing air pollution and road traffic. This has the potential to impact and degrade the fabric and settings of listed buildings, scheduled monuments and parks and gardens.
- 5.8.11. Expansion of roads and the development of new residential and commercial areas, to accommodate the increased number of private vehicles, road traffic, and population increase, will put pressure on land space and could result in land take from historical assets.
- 5.8.12. Protection of the historic environment is likely to be maintained through existing local, regional and national plans and policies, however without the TS there may be reduced opportunities for new development to enhance and support the local heritage character and strike the right balance between protection and enhancement the need for development. The TS presents opportunities to reduce the number of vehicles on local roads, reducing the degradation of heritage assets.

Issues and Opportunities

- 5.8.13. The following issues and opportunities have been identified in **Table 5-11** below.

Table 5-11 – Issues and Opportunities for Historic Environment

Key Issues & Opportunities	Considerations for the TS
■ There is potential for development to encroach on assets, particularly affecting the settings of assets through increased noise and visual effects. ■ New and/or upgraded transport infrastructure in the vicinity of designated heritage assets such as scheduled monuments can have an impact on their setting. ■ Highly significant archaeological remains, whether designated or not, normally require preservation in situ. This clearly has implications and can represent a significant constraint to future scheme design, which should respect, retain and protect the remains (e.g. through avoidance and redesign). ■ Vehicle damage and pollution can adversely affect both listed buildings and scheduled monuments, so reducing vehicle movements within historic urban areas is also an important area to address. ■ The character of KL&WN's historic landscapes and townscapes can be eroded by the construction and operation of transport infrastructure.	■ There are opportunities for enhancing the setting of heritage assets through the development of schemes to reduce traffic noise and enhance accessibility through active modes and asset settings. ■ The TS should preserve and enhance the current settings of above ground heritage assets.

5.9 Water Environment

Baseline

- 5.9.1. KL&WN is predominantly underlain by two Principal Aquifers⁷⁸: Chalk and Lower Greensand. A Principal Aquifer usually provides a high level of water storage. It may support water supply and/or river base flow on a strategic scale, however these have high vulnerability to pollution. The chalk is the major aquifer of southern and eastern England and has a well-developed interconnected network of fractures.
- 5.9.2. The borough falls within the Anglian River Basin District, and the following Management Catchments and Operational Catchments:
- Nene (Nene Lower Operational Catchment);

⁷⁸ [British Geological Survey, Principal aquifers in England and Wales](#)

- North West Norfolk (North West Norfolk Rivers Operational Catchment);
- North Norfolk Rivers (North Norfolk Operational Catchment);
- Old Bedford and Middle Level (Old Bedford Operational Catchment and Middle Level Operational Catchment); and
- Cam and Ely Ouse (South Level and Cut-Off Channel Operational Catchment and Wissey Operational Catchment).

- 5.9.1. The Water Framework Directive (WFD)⁷⁹ 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. Of the 39 water bodies, just 10% are achieving 'good' ecological status, falling far short of the WFD target for 100%. The percentage of water bodies achieving 'moderate' status was 74%, whilst 15% had 'poor' status. All water bodies failed based on their chemical status.
- 5.9.2. The reasons for not achieving good is predominantly due to agriculture and rural land management, sewage discharge by the water industry, and urban and transport issues, whereby there is pollution from rural areas, towns, cities and transport, and physical modification which change the natural flow of the river.
- 5.9.3. In the UK, the Environment Improvement Plan (EIP)⁸⁰ is the first revision of the 25 Year Environment Plan (25YEP)⁸¹. The EIP includes the following targets and commitments:
- Reduce nitrogen, phosphorus and sediment pollution from agriculture into the water environment by at least 40% by 2038, compared to a 2018 baseline, with an interim target of 10% by 31 January 2028, and 15% in catchments containing protected sites in unfavourable condition due to nutrient pollution by 31 January 2028.
 - Restore 75% of our water bodies to good ecological status.
 - Require water companies to have eliminated all adverse ecological impact from sewage discharges at all sensitive sites by 2035, and at all other overflows by 2050.
- 5.9.1. The Anglian river basin district river basin management plan, developed in 2016, and updated in 2018, states that 42.6% (257) of water bodies have an objective of maintaining or aiming to achieve good ecological status by 2027⁸².
- 5.9.2. 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 map⁸³ for

⁷⁹ [Department for Environment, Food & Rural Affairs \(2014\) Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment](#)

⁸⁰ [Department for Environment, Food & Rural Affairs \(2023\) Environmental Improvement Plan 2023](#)

⁸¹ [Department for Environment Food & Rural Affairs \(2018\) 25 Year Environment Plan \(Updated 2023\)](#)

⁸² [Department for Environment, Food & Rural Affairs and Environment Agency \(2016\) Anglian river basin district river basin management plan \(Updated 2018\)](#)

⁸³ [Environment Agency, Flood Map for Planning](#)

planning shows that a considerable portion of the borough, specifically in the flat and low-lying coastal plain of the southwest region, lies within in flood risk zone 3, meaning it has a high probability of flooding.

- 5.9.3. There are numerous records of historic flooding affecting the borough. The floods of January 1953 badly affected the east coast of England, when a storm surge occurred at the same time as a high spring tide⁸⁴. In KL&WN, flood waters surged inland from the Wash, and 25 people died in Snettisham, just north of King's Lynn⁸⁵. Recorded flood outlines and areas on flood risk zones 2 and 3 (at highest risk of flooding) can be seen in **Figure B-9** in **Appendix B**.
- 5.9.4. Norfolk's Local Flood Risk Management Strategy (LFRMS) identifies 37,000 properties are at risk of flooding during a rainfall event in a 1-in-200-year flood risk⁸⁶. The strategy indicates King's Lynn as the third most likely Norfolk settlement (after Norwich and Great Yarmouth) to be affected by surface water flood risk (with 810 properties at risk). The LFRMS identifies about half of KL&WN as being in The Fens; a flood plain with a network of flood defences consisting over 60 miles of coastal sea walls and 96 miles of river embankments.
- 5.9.5. The KL&WN Strategic Flood Risk Assessment (SFRA) provides further detail on the extent of flood risk associated with main rivers and the sea in the borough⁸⁷. The SFRA details the specific standard of protection for the 18 Internal Drainage Boards (IDBs) within the borough and summarises a high-level review identifying the main settlements where flood risks and extents are more prominent.
- 5.9.6. The Anglian Water regions has the highest level of water consumption from business and industry in the country - 15% of all water taken from the environment is used for non-household supply. Business and industry in this region are higher-than-average water users, consuming on average around 0.6 litres of water per day relative to economic output, compared to 0.5 litres for England as a whole⁸⁸.

Future Baseline

- 5.9.1. 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; runoff from urban, transport and agricultural areas; the presence of non-native species; and physical modifications to water bodies.

⁸⁴ Met Office, Storm surge

⁸⁵ BBC News (2023) 1953 flooding remembered in King's Lynn

⁸⁶ Norfolk County Council (2015) Local Flood Risk Management Strategy

⁸⁷ Borough Council of King's Lynn & West Norfolk (2017) Flood risk assessment - Level 1

⁸⁸ Anglian Water, Thriving East

- 5.9.2. Meeting water supply demand over the next 25 years will be challenging in the East of England. Deficits may develop across England by the 2050s due to climate change alone; these would be exacerbated by population growth. There are significant competing demands on scarce water resources, with the needs of different users having to be traded-off against each other.
- 5.9.3. At a regional level, the future implications of climate change projections include: increased coastal and flood-plain flood events leading to damage to property and disruption to economic activity; water shortages; and higher incidence of damage to transportation, utilities, property and communications infrastructure caused by an increase in the number of extreme weather events (e.g. heat, high winds and flooding).
- 5.9.4. The TS presents opportunities to provide a targeted approach to addressing flood risk and water quality issues. It could support sustainable urban drainage systems (SUDs) and GI requirements within new infrastructure developments in order to adapt to climate change and counteract flood risk.

Issues and Opportunities

- 5.9.5. The following issues and opportunities have been identified in **Table 5-12** below.

Table 5-12 – Issues and Opportunities for Water Environment

Key Issues & Opportunities	Considerations for the TS
■ 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 39 water bodies, just 10% are achieving 'good' status, falling far short of the WFD target. ■ Climate change is likely to increase the occurrence of flooding from all sources and hence raise the flood risk in KL&WN. ■ Increased development (including transport infrastructure) can increase flood risk on a local and catchment scale. ■ There are significant competing demands on scarce water resources, with the needs of different users having to be traded-off against each other. ■ Upgrading existing infrastructure provides the opportunity to improve pollution control, include the reduction of litter.	■ New transport infrastructure could result in improved drainage, reducing discharge from roads and surface water flooding. ■ The TS should ensure that development in close proximity to a watercourse should include provision of natural, undeveloped buffer zones. These can help contribute to natural flood management whilst also allowing access for maintenance and emergency works. ■ The TS could seek to incorporate sustainable urban drainage systems (SUDs) and GI requirements within new developments in order to adapt to climate change and counteract flood risk. GI can also reduce surface water runoff and have water quality co-benefits.

5.10 Air Quality

Baseline

- 5.10.1. Air quality plays an important role in human health. Poor air quality can have large impacts on health through short term exposure, but particularly through long term exposure, see **Section 5.3** of this Report. According to the World Health Organization (WHO), air quality is one of the greatest environmental risks to human health. Reducing air pollution can result in reductions in stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma. In 2019, 99% of the world's population were living in places where the WHO air quality guidelines levels were not met, and that ambient air pollution caused 4.2 million premature deaths worldwide in 2019⁸⁹.
- 5.10.1. In the UK, The Environmental Improvement Plan 2023⁸¹ shows that air quality in the UK has improved significantly in recent decades. Between 2010 and 2020 emissions of fine particulate matter (PM_{2.5}) decreased by 18%; emissions of nitrogen oxides (NO_x) decreased by 44%; sulphur dioxide (SO₂) by 70%, non-methane volatile organic compounds by 14%, and ammonia (NH₃) by 0.2%. Reductions in these pollutants have produced significant benefits for human health and the environment. However, air pollution continues to be the biggest environmental risk to human health, with particular hotspots in some urban areas.
- 5.10.2. Poor air quality also contributes to the deterioration of ecological receptors. Ecosystems are negatively impacted by air pollution, particularly emissions such as sulphur and nitrogen, as it affects their ability to function and grow⁹⁰.
- 5.10.3. The most significant air pollutants from the transport sector are NO_x and PM. Transport contributed a substantial portion of these air pollutants to the UK's domestic total: a third of nitrogen oxides, 14% of PM_{2.5} emissions, and 12% of PM₁₀ emissions came from transport in 2020⁹¹.
- 5.10.4. KL&WN has lower levels of air pollution compared to the UK overall⁹². The average annual mean for nitrogen dioxide in the majority of the borough is below 10 µg m⁻³. In King's Lynn, the average annual mean is predominantly 11 – 20 µg m⁻³, which is still lower than the UK air quality objective (AQO)⁹³ of 40 µg m⁻³. The borough does not exceed the AQO for either PM₁₀ or PM_{2.5}.
- 5.10.5. Where air quality objectives are not likely to be achieved, an Air Quality Management Area (AQMA) must be declared. These are predominantly associated with vehicle traffic and

⁸⁹ [World Health Organisation \(2022\) Ambient \(outdoor\) air pollution](#)

⁹⁰ [UNECE. Air Pollution, Ecosystems and Biodiversity](#)

⁹¹ [Department for Transport \(2022\) Transport and environment statistics](#)

⁹² [Defra. UK Air Information Resource. UK Ambient Air Quality Interactive Map](#)

⁹³ [Defra. UK Air Information Resource. UK Air Quality Limits](#)

emissions, principally NO_x, although a few have been declared for SO₂. As such, AQMAs are mostly located within urban areas and sections of the road network which are heavily trafficked and frequently congested.

- 5.10.6. There are two AQMAs in KL&WN. Both are located in King's Lynn: Railway Road AQMA and Gaywood Clock AQMA. These areas are shown in more detail in **Figure B-10** in **Appendix B**. All AQMAs have been declared for exceedances of nitrogen dioxide.
- 5.10.7. The BCKL&WN Air Quality Action Plan (AQAP) outlines emissions action plan measures to be taken regarding both AQMAs⁹⁴, including the roll out of electric vehicle (EV) charging points in the borough. KL&WN recently received a grant under the On-Street Residential Chargepoint Scheme (ORCS) with the assistance of BP Pulse to install more EV charging points⁹⁵, and there are now 47 chargers in KL&WN (31 per 100,000 people). This is lower than both the regional (59 per 100,000 people) and national (82 per 100,000 people) averages⁹⁶.

Future Baseline

- 5.10.1. The UK Clean Air Strategy outlines plans to reduce emission of pollutants and improve air quality by the year 2030⁹⁷. This will include reductions in public exposure to particulate matter, ammonia, nitrogen oxides, sulphur dioxide, and non-methane volatile organic compounds. However, the 29% increase in road traffic from 1990 and 2018 and 6% increase in GHG emission from 1990 to 2017 is likely to continue.
- 5.10.2. The number of vehicles on the roads is likely to increase as the population rises, putting air quality at further risk of degradation. More severe and frequent heat episodes (associated with the changing climate) can also worsen air quality, and therefore asthma, respiratory diseases and allergic reactions, without further intervention.
- 5.10.3. The UK wide ban on the new petrol and diesel vehicle sales by 2035 is expected to lead to a reduction in emissions from vehicles⁹⁸. This will improve air quality, particularly across urban areas, and further the improvements to emissions reductions. Electric and hybrid vehicles are expected to become dominant (with the ban on hybrid vehicle sales in the UK by 2035).
- 5.10.4. Overall, increases in population and urbanisation have the possibility to degrade air quality, while higher standards for air pollutants and vehicle emissions have the potential to improve air quality. These opposing trends may balance each other out in future.

⁹⁴ [Borough Council of King's Lynn & West Norfolk \(2015\) Air Quality Action Plan](#)

⁹⁵ [Borough Council of King's Lynn & West Norfolk, Electric vehicle charging points](#)

⁹⁶ [Department for Transport \(2024\) Electric vehicle public charging infrastructure statistics: January 2024](#)

⁹⁷ [Defra \(2019\) Clean Air Strategy](#)

⁹⁸ [HM Government \(2020\) Government takes historic step towards net-zero with end of sale of new petrol and diesel cars by 2030](#)

5.10.5. The TS presents significant opportunities to reduce air pollution, particularly through providing alternative transport modes within congested areas. This is likely to aid in encouraging a modal shift away from private car use, which supports Government initiatives to reduce vehicle emissions.

Issues and Opportunities

5.10.6. The following issues and opportunities have been identified in **Table 5-13** below.

Table 5-13 – Issues and Opportunities for Air Quality

Key Issues & Opportunities	Considerations for the TS
■ The number of vehicles on the roads is likely to increase as the population rises, putting air quality and AQMAs at further risk of degradation. ■ More severe and frequent heat episodes as a result of climate change can contribute to the worsening of air quality. ■ Whilst electric cars should have positive effects for air quality in terms of NO₂ reductions, there is concern that electric vehicles, which are currently heavier than ‘conventional’ vehicles, may generate more particulate (PM₁₀) pollution from brake and tyre wear. ■ Air quality issues across KL&WN 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.	■ 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. ■ A modal shift to sustainable transport modes (public transport and active transport), must be an objective of the TS to aid in reducing emissions and car dependency. ■ There is a potential for improvements to support the development of electric charging facilities in line with the UK Government’s plan to end the sale all new conventional petrol and diesel cars and vans by 2035. ■ The TS should aim to improve congested areas of KL&WN, minimising excess emissions where possible and aiding in improving air quality. ■ 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”⁹⁹.

5.11 Climate Change & Greenhouse Gases

Baseline

- 5.11.1. In 2021, an estimated 26% of greenhouse gas emissions (GHGs) in the UK were from the transport sector, 20% energy supply, 18% business and 16% residential, with carbon dioxide (CO₂) being the most prominent gas from these sectors¹⁰⁰. In 2021, transport

⁹⁹ [National Institute for Health and Care Excellence \(2016\) Drive Smoothly to Reduce Harmful Effects of Air Pollution](#)

¹⁰⁰ [Defra \(2023\) 2021 UK Greenhouse Gas Emissions, Final Figures](#)

accounted for 109.5 MtCO₂e of GHG emissions, which represents a 10% increase from 2020, but an 11% decrease compared with 2019 figures. The impact of the pandemic in 2020 caused transport emissions to fall, attributable to lockdown measures introduced.

- 5.11.2. In 2020, a total of 2,183.7 ktCO₂e emissions¹⁰¹ were generated by KL&WN, with the greatest number of emissions arising from land use, land-use change, and forestry (34.0%), followed by agriculture (17.8%) and transport (14.8%). **Table 5-14** shows the breakdown of emissions generated by KL&WN compared to regional and national averages.

Table 5-14 – Carbon Emissions, 2020

	Total Emissions (kt CO ₂ e)	Transport Related Emissions (kt CO ₂ e)	Per Capita Emissions (tCO ₂ e)
KL&WN	2,183.7	323.2	14.4
East of England	36,562.2	11,646.1	5.8
England	291,134.6	89,510.9	5.1

- 5.11.3. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures. The distribution of areas with the highest carbon emissions in KL&WN is similar to the UK overall, with the urban areas of King's Lynn and key transport corridors having the highest levels of carbon emissions¹⁰². The average annual mean for carbon dioxide as carbon in the majority of the borough is between 10–32-unit tonnes/1x1km. There are stark contrasts in carbon emissions between rural areas and urban areas: with < 1-unit tonnes/1x1km along parts of the coastline, compared to > 100-unit tonnes/1x1km in the more densely populated areas of Downham Market, Hunstanton and Dersingham, and along major roads. King's Lynn has carbon emissions of > 1995-unit tonnes/1x1km.
- 5.11.4. During the most recent decade (2009-2018) the UK has been on average 0.3°C warmer than the 1981-2010 average and 0.9°C warmer than 1961-1990. All of the top ten warmest years have occurred since 2002. In the past few decades there has been an increase in

¹⁰¹ Department for Business, Energy & Industrial Strategy (2022) UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020

¹⁰² National Atmospheric Emissions Inventory. UK Emissions Interactive Map

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 1981–2010¹⁰³.

- 5.11.5. Sea level rises, coastal erosion, increased storminess and changes in temperatures are key factors to changes in coastlines. Projections for future flood levels indicate that vast areas of the coastline and the low-lying coastal plain, reaching from Hunstanton to as far south as Feltwell, could be below the annual flood level and at risk from sea level rise from the start of the next decade in 2030¹⁰⁴. The Fens (see **Section 5.7** for more details) to the west of the borough has a considerable portion of land that would be inundated below one metre of water, which could be reached through combinations of sea level rise, tides, and storm surge from the Wash. Additionally, routes are at risk, with the A17 and A47 susceptible.

Future Baseline

- 5.11.6. 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 2008¹⁰⁵. 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 2050¹⁰⁶. 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 levels¹⁰⁷. Currently there is widespread criticism as to whether the UK is on track to meet these ambitions.
- 5.11.7. Working towards these targets means changes to technology as well as ways in which people travel. For example, prior to the 26th Conference of the Parties (COP26) Summit in 2021, the UK brought forward its ban on the selling of new petrol, diesel, or hybrid cars from 2040 to 2030. The last decade has seen a remarkable surge in demand for electric vehicles in the UK. The number of licensed ultra-low emission vehicles (ULEVs) in the UK has increased by 71% between the end of March 2021 to the end of March 2022, a jump from 487,000 ULEVs to 833,000 ULEVs¹⁰⁸.
- 5.11.8. Since the 27th Conference of the Parties (COP27) Summit in 2022, the UK has pledged to triple its contributions to adaptation finance by 2025¹⁰⁹, in recognition of the existential threat climate change is posing globally. The most recent UN climate summit, COP28, held

¹⁰³ [Met Office, UK Climate Projections: Headline Findings, 2022](#)

¹⁰⁴ [Climate Central, Coastal Risk Screening Tool](#)

¹⁰⁵ [Climate Change Act \(2008\)](#)

¹⁰⁶ [Paris Agreement \(2015\)](#)

¹⁰⁷ [Department for Business, Energy and Industrial Strategy \(2020\) Press Release: UK Sets Ambitious New Climate Target Ahead of UN Summit](#)

¹⁰⁸ [Department for Transport \(2022\) Vehicle licensing statistics: January to March 2022](#)

¹⁰⁹ [House of Commons \(2023\) What was agreed at COP27?](#)

in November/December 2023, took stock of its progress on the Paris Agreement through the first Global Stocktake¹¹⁰.

- 5.11.9. BCKL&WN declared a climate emergency in 2021 and have brought forward their net zero target to 2035 from 2050, committed to reviewing whether it could be brought forward further to 2030¹¹¹. The Climate Strategy and Action Plan (2021 – 2024) follows a phased approach to tackling emissions, with phase 1 focused on reducing corporate emissions to meet the 2035 net zero target, and phase two focusing on BCKL&WN's role and scope of influence in helping to reduce emissions across the district.
- 5.11.1. Despite this, the current estimate for temperature increases and changes to rainfall patterns are unlikely to alter significantly in the near future, given the timescales associated with climate change. This being the case, there will be an increasing need to implement climate change mitigation and adaptation measures in light of changing environmental conditions.
- 5.11.2. The TS would allow for better designed infrastructure which are more resilient to the effects of climate change, reduce GHGs construction and operation (including embodied carbon). It will likely support sustainable transport modes, including active and public transport, which in turn will aid in reducing the amount of greenhouse gases the transport network produces.

Issues and Opportunities

- 5.11.3. The following issues and opportunities have been identified in **Table 5-15** below.

Table 5-15 – Issues and Opportunities for Climate Change & Greenhouse Gases

¹¹⁰ [COP28 UAE | United Nations Climate Change Conference \(UNFCCC\)](#)

¹¹¹ [Borough Council of King's Lynn & West Norfolk, Our climate change work](#)

Key Issues & Opportunities	Considerations for the TS
■ Transport is the largest contributor to greenhouse gas emissions in the UK, with the largest contributor being domestic transport. ■ There is a need to ensure climate resilience of the transport infrastructure in KL&WN. The extent of future climate change will be strongly affected by the amount of greenhouse gases that the population chooses to emit. ■ In rural areas of KL&WN, particularly, where there are limited local facilities and fewer public transport services, many people are reliant on private transport which contributes to greenhouse gas emissions.	■ 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. ■ There is a need to support the continued increase in infrastructure to support the demand in electric cars, as well as the modal shift to more sustainable transport (active transport and public transport). ■ There is a need to support the reduction of GHG emissions within the transport industry towards net-zero through the better provision of sustainable transport. ■ Site selection should account for future climate change and consider locating transport infrastructure away from areas of high flood risk, or where road drainage may impact on water quality issues. ■ TS could maximise opportunities to integrate connected blue and GI along transport corridors. GI in urban areas can ameliorate the warming effects of climate change and the urban heat island (UHI) effect¹¹².

5.12 Noise

Baseline

- 5.12.1. Noise Important Areas (NIAs) are hotspots where the highest 1% of noise levels from roads and railway at residential locations can be found. The location of these can be seen in **Figure B-11 in Appendix B**.
- 5.12.2. There are a number of NIAs through KL&WN concentrated in and around the town centres and along major roads. Data from the England Noise Viewer¹¹³ shows that the A10, A47, A148, A149, A1076, A1078 and the A1122 create significant noise with noise levels

¹¹² [Forest Research \(2022\) Benefits of green infrastructure](#)

¹¹³ [Extrium, England Noise and Air Quality Viewer](#)

exceeding 55 decibels (dB) in areas within 1km of the source (Day Night Average Sound Level (Lden), 24-hour annual average noise levels with weightings applied for the evening and night periods). Areas affected are exacerbated where major roads merge and in locations where roads and railways cross.

- 5.12.3. Noise pollution is a prevalent issue across Europe, with about 40% of the population in EU countries exposed to road traffic noise at levels exceeding 55dB¹¹⁴. Noise has been linked to health problems including high blood pressure, disturbed sleep, and increased release of stress hormones. More recently, a study has found an association between excessive traffic noise and increases in heart disease risk markers¹¹⁵. In the UK, the estimated medical cost of noise-related hypertension and associated conditions is £1.09 billion a year¹¹⁶.

Future Baseline

- 5.12.1. 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. However, more congestion may lead to slower moving traffic which may reduce noise levels. Furthermore, recent vehicle innovations such as hybrid and electric cars have led to quieter vehicles and this trend is expected to continue with greater uptake.
- 5.12.2. 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 effects will likely result in an increase in ambient temperatures and for longer periods, creating a need to seek thermal relief, which generally with existing housing stock tends to be satisfied by opening of windows, thus increasing exposure to noise.
- 5.12.3. The TS presents opportunities to reduce congestion and the number of vehicles on the borough's roads as well as encouraging sustainable transport modes, therefore reducing noise pollution.

Issues and Opportunities

- 5.12.4. The following issues and opportunities have been identified in **Table 5-16** below.

Table 5-16 – Issues and Opportunities for Noise

¹¹⁴ [World Health Organization \(2010\) Noise](#)

¹¹⁵ [Imperial College London \(2017\) Noise from busy roads might increase heart disease risk, finds new study](#)

¹¹⁶ [Harding, et al. \(2013\) The cost of hypertension-related ill-health attributable to environmental noise](#)

Key Issues & Opportunities	Considerations for the TS
- 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 National Landscapes, 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 KL&WN. - The TS should take consideration for areas with existing high noise exposure.

5.13 Material Assets (including Soils)

Baseline

Land, Soils and Geology

- 5.13.1. According to Natural England's Agricultural Land Classification¹¹⁷, much of the agricultural land in BCKL&WN is rated good to moderate quality (grade 3). In the east of the borough, land within King's Lynn is rated urban, while the land surrounding the area is considered non-agricultural.
- 5.13.2. BCKL&WN is underlain by five Principal Aquifers¹¹⁸: Chalk, Lower Greensand, Oolites, Triassic Sandstone and Carboniferous Limestone. A Principal Aquifer usually provides a high level of water storage. It may support water supply and/or river base flow on a strategic scale, however these have high vulnerability to pollution. The Lower Greensand extends beneath the majority of BCKL&WN and can yield up to 50 l/sec and the water is typically soft and iron rich.

¹¹⁷ [Natural England \(2010\) Regional Agricultural Land Classification](#)

¹¹⁸: [British Geological Survey, Principal aquifers in England and Wales](#)

- 5.13.3. The geology across BCKL&WN varies but is predominantly comprised of sedimentary bedrock formed between the Jurassic and Cretaceous period. Clays, silts and chalks are the most common formations¹¹⁹.

Transport Infrastructure

- 5.13.4. BCKL&WN is well served by transport connections between urban areas in the region and wider area. Main transport routes include:

- A47(T) trunk road (Leicester to Great Yarmouth);
- A10, A17 and A134;
- A direct electrified rail service to Cambridge and London;
- Sea links to northern and eastern Europe and an extensive system of navigable waterways; and
- A47(T) railway and port all feature within the Trans European Network.

- 5.13.5. Additional local long distance walking trails include:

- Fen Rivers Way;
- Nar Valley Way;
- Norfolk Coast Path;
- Peddars Way; and
- Sir Peter Scott Walk.

Energy

- 5.13.6. The commitment made by BCKL&WN to become net zero by 2035 will require commitments to increasing the supply of renewable energy across the borough.

- 5.13.1. There are 4,102 renewable energy sites in across KL&WN¹²⁰, which is dominated by photovoltaic energy production (95.8% of sites). These sites have a combined installed capacity of 110.0 megawatts and generating 109,294 megawatt hours.

- 5.13.2. BCKL&WN is supporting its commitment to become net zero by further investing into renewable energy generation by installing photovoltaics onto council owned properties. The council conducted a Re:fit (A procurement initiative for public bodies wishing to implement measures to improve energy efficiency) of their estate in 2019, expected to save approximately 400 tonnes of CO₂ a year¹¹¹.

¹¹⁹ [British Geological Survey, Geology Viewer](#)

¹²⁰ [Defra \(2022\) Regional Renewable Statistics](#)

Waste

- 5.13.3. The UK generated 222 million tonnes of waste in 2018¹²¹. The BCK&WN is part of the Norfolk Waste Partnership¹²². In Norfolk, the total household waste collected for 2021/22 was 421,493 tonnes. Of this, 235,233 tonnes was residual waste, and 186,260 tonnes was recycled.
- 5.13.4. There are three landfill sites within BCKL&WN that have remaining capacity. These are East Winch Landfill, Blackborough End Landfill (Green Land), and Feltwell Landfill Site. Cumulatively, these have a capacity of 4,017,332 cubic meters¹²³.

Future Baseline

- 5.13.5. BCKL&WN declared a climate emergency in 2021 and have brought forward their net zero target to 2035 from 2050, committed to reviewing whether it could be brought forward further to 2030¹²⁴. The Climate Strategy and Action Plan (2021 – 2024) follows a phased approach to tackling emissions, with phase 1 focused on reducing corporate emissions to meet the 2035 net zero target, and phase 2 focusing on BCKL&WN's role and scope of influence in helping to reduce emissions across the district.
- 5.13.6. Due to projected population trends, there will be a need for development (including transport infrastructure) to support this growth. Without the TS, transport infrastructure may not be well aligned to growth areas and the key places where infrastructure is required. There may also be missed opportunities for upgrading the existing transport infrastructure.
- 5.13.7. Agricultural areas are also at risk from climate change. Projections of increased flooding (including that caused by sea-level rise) and drought may lead to the loss of important agricultural areas, through compaction, waterlogging and erosion of soil.
- 5.13.8. Similarly, climate change poses a threat to transport infrastructure. Increased levels of rain and storminess is likely to increase the prevalence of flooding, which can overwhelm road drainage, cause landslips and increase the number of potholes. Both extreme heat in the summer and extreme cold in the winter can also pose threats to transport infrastructure. High temperatures can result in expansion (which can lead to cracking), asphalt bleeding and increase the frequency of droughts, which can cause drying of soil and plants, leading to earthwork problems. Cold weather can lead to ice and snow which can also increase potholes and weather-related delays.
- 5.13.9. 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

¹²¹ [Department for Environment Food and Rural Affairs \(2022\) UK statistics on waste](#)

¹²² [Norfolk Waste Partnership \(2022\) Annual Report 2021/22](#)

¹²³ [Environment Agency \(2023\) 2022 Remaining Landfill Capacity](#)

¹²⁴ [Borough Council of King's Lynn & West Norfolk, Our climate change work](#)

resource efficiency and waste management measures, including the re-use and recycling of materials. The Norfolk Minerals and Waste Development Framework aims to reduce the impact of mineral extraction and associated development and waste management facilities on the transport system¹²⁵.

Issues and Opportunities

5.13.10. The following issues and opportunities have been identified in **Table 5-17** below.

Table 5-17 – Issues and Opportunities for Material Assets

Key Issues & Opportunities	Considerations for the TS
■ It is important that any future development of the transport network across KL&WN does not have adverse impacts or lead to 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 continued increase in renewable energy supplies across the borough, of which needs to be managed efficiently to ensure the capacity requirements of this transition are met.	■ Where land take is required to support the emerging TS schemes, the region's best and most valuable land should be avoided. ■ Resource efficiency is important in the reduction of waste and conservation of resources. ■ The TS could promote opportunities to support a green economy. ■ There are opportunities for TS schemes to incorporate renewable energy and upgrade the electric vehicle (EV) charging network. ■ The TS should incorporate resource efficiency and waste management measures. ■ There is a need to ensure that transport infrastructure is resilient to the effects of climate change.

¹²⁵ [Norfolk County Council \(2011\) Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026](#)

6 Sustainability Framework

6.1 Introduction

- 6.1.1. This section sets out the Sustainability Appraisal Framework which will be used in the SEA assessment process. The SEA assessment will involve the appraisal of the transport aspirations and priorities (once finalised), identifying their environmental and social sensitivities and the potential for significant effects.

6.2 SEA Framework

- 6.2.1. While not specifically required by the SEA Regulations, sustainability objectives are a recognised way of considering the environmental, social and economic effects of a plan or programme and comparing the effects of alternatives. The objectives are developed using the sustainability issues identified in **Section 5**. The objectives will be used to assess the options in the TS and identify likely sustainability effects.
- 6.2.2. Sustainability objectives were developed using:
- The review of key policy documents;
 - The baseline data collation;
 - An assessment of future trends; and
 - The identification of sustainability issues and opportunities.
- 6.2.3. **Table 6-1** below sets out the sustainability objectives that have been created from this Scoping Report.

Table 6-1 – SEA Appraisal Framework

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Population & Equalities	- Transport issues affect different groups to varying extents, and there is evidence showing that the barriers to accessing and using transport can be exacerbated by age, ethnicity and gender. - The rural nature of large parts of KL&WN could pose significant challenges in providing good services for all residents. There will, therefore, be a need for increased access to transport. - The population of KL&WN is predicted to increase in number resulting in a change in the age profile. - Changing work habits such as remote, internet-based jobs and working from home are likely to reduce transport demand, but may also increase social isolation, which could increase reliance on alternative social interaction. - With an increasing ageing population in KL&WN, there is likely to be additional strain on the area's services and infrastructure; this is likely to be exacerbated with a higher-than-average number of people living in rural areas. - The change in working habits has also affected traditional 5/2-day shift patterns for public transport with one in 10 local bus services in the UK cancelled in 2022¹⁹.	SEA1: To increase the inclusivity, capacity and connectivity of the transportation network to support future demographic changes for both rural and urban populations.	Will the TS: - Help to reduce inequalities, particularly for those people and communities most vulnerable? - Improve access to services, facilities and transport for all inclusively (including disabilities, hidden disabilities, dementia, and autism)? - Proportionately support both rural and urban communities - Support diversity? - Support population growth?
Human Health	- The population of the area is ageing; older people may not have access to appropriate forms of private transport to access healthcare, community, and social care facilities. - There are high levels of physical inactivity and obesity across KL&WN. - Social isolation can lead to loneliness which has the potential to undermine well-being thereby impacting negatively on people's quality of life. - There are higher levels of loneliness in rural areas than urban areas. - Addressing poor air quality within KL&WN should be an important element of the strategy and action plan.	SEA2: 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 TS: - Promote healthier lifestyles? - Increase walking and cycling? - Promote health enhancing environments, behaviours and activities for local communities? - Help prevent risks to human health, which arise from noise and air pollution? - Help prevent social isolation in both the rural and urban setting?
Economy & Employment	- If employment remains more concentrated in urban centres, this could put increased pressure on transport systems as commuting distances increase. - The working age population is lower than the average. - Retirement is one of the main factors contributing to economic inactivity in the borough. - There is a low density of jobs within KL&WN compared to regional and national averages.	SEA3: To provide greater connectivity across KL&WN to support key sectors, attract inward investment and support economic success.	Will the TS: - Support economic growth? - Support access to jobs and training opportunities? - Improve access to employment centres? - Support regeneration of town and district centres? - Support the tourism industry?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Community Safety	- Crime on public transport in the UK is on the rise, particularly with regards to sexual assault, violent crimes and disruption. - As the population within KL&WN increases there are expected to be a greater number of vehicles on the borough's roads, which may result in an increase in the number of accidents and those KSI on roads. - Children in the most deprived neighbourhoods are nearly three times more likely to be KSI as a pedestrian compared to non-deprived neighbourhoods⁴⁷. - There are opportunities to increase the safety of active transport modes such as cycling and walking. - Vulnerable road users such as cyclist and pedestrians are more likely to be casualties. In KL&WN, males aged 17 to 29 years old are also more likely to be casualties.	SEA4: To promote safe transport through reducing accidents, improving safety and reducing crime across the transport network.	Will the TS: - Improve safety? - Ensure that residents feel safe, particularly after dark? - Support designing out crime principals? - Reduce levels of crime deprivation? - Improve road safety and reduce the number of people KSI on the roads, particularly children from deprived backgrounds?
Biodiversity & Natural Capital	- There are a wide range of statutory local, national and international sites designated for nature conservation across KL&WN, 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.	SEA5: To protect and enhance habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	Will the TS: - Cause damage to locally and nationally designated sites though infrastructure provision, traffic or maintenance? - Maintain and enhance biodiversity in the borough? - Seek opportunities for at least 10% biodiversity net gain through green infrastructure? - Increase provision of ecosystem services from the borough's natural capital? - Prevent fragmentation of habitats and promote ecological networks? - Result in developments which will improve biodiversity on site?
Landscape, Seascape & 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. - Future growth in some locations could risk compromising landscape, seascape and townscape character and features, however a landscape-led design with GI principles in place, could play a key role in the enhancement of the natural environment, visual amenity and physical and mental health of its people. Climate change will also put pressure on the landscape and seascape designations as new pests and diseases emerge sea levels rise and extreme weather increasing the stresses on nature conservation.	SEA6: To protect and enhance townscapes, seascapes and landscapes of visual importance.	Will the TS: - Respect, maintain and strengthen local character and distinctiveness? - Improve the quality and condition of the townscape and landscape? - Incorporate green infrastructure into design? - Protect and enhance the special character of designated National Landscapes?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Historic Environment	- There is potential for development to encroach on assets, particularly affecting the settings of assets through increased noise and visual effects. - New and/or upgraded transport infrastructure in the vicinity of designated heritage assets such as scheduled monuments can have an impact on their setting. - Highly significant archaeological remains, whether designated or not, normally require preservation in situ. This clearly has implications and can represent a significant constraint to future scheme design, which should respect, retain and protect the remains (e.g. through avoidance and redesign). - Vehicle damage and pollution can adversely affect both listed buildings and scheduled monuments, so reducing vehicle movements within historic urban areas is also an important area to address. - The character of KL&WN's historic landscapes and townscapes can be eroded by the construction and operation of transport infrastructure.	SEA7: To protect and enhance the historic environment, including heritage assets (designated and non-designated) and their settings where this contributes to their significance, and/or allows their significance to be appreciated.	Will the TS: - Conserve and/or enhance heritage assets, their setting and the wider historic environment? - Improve the quality and condition of the historic environment? - Respect, maintain and strengthen local character and distinctiveness? - Result in the loss of buried and unknown historic assets and artifacts? - Protect, enhance and manage the character and appearance of historic landscapes/seascapes/townscapes, maintaining local character, distinctiveness and sense of place? - Achieve high quality sustainable design for buildings, spaces and the public realm?
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 39 water bodies, just 10% are achieving 'good' status, falling far short of the WFD target. - Climate change is likely to increase the occurrence of flooding from all sources and hence raise the flood risk in KL&WN. - Increased development (including transport infrastructure) can increase flood risk on a local and catchment scale. - There are significant competing demands on scarce water resources, with the needs of different users having to be traded-off against each other. - Upgrading existing infrastructure provides the opportunity to improve pollution control, include the reduction of litter.	SEA8: To reduce the risk and vulnerability to flooding. SEA9: To maintain and enhance water quality by reducing levels of pollution from the transport network.	Will the TS: - Reduce the risk of flooding? - Increase surface runoff? - Result in the reduction of water quality? - Support the protection and enhancement of water bodies?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Air Quality	■ The number of vehicles on the roads is likely to increase as the population rises, putting air quality and AQMAs at further risk of degradation. ■ More severe and frequent heat episodes as a result of climate change can contribute to the worsening of air quality. ■ Whilst electric cars should have positive effects for air quality in terms of NO2 reductions, there is concern that electric vehicles, which are currently heavier than ‘conventional’ vehicles, may generate more particulate (PM10) pollution from brake and tyre wear. ■ Air quality issues across KL&WN 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.	SEA10: To protect and enhance air quality by reducing emissions from the transport network.	Will the TS: ■ Support measures to reduce levels of air pollution? ■ Support measures for the reduction of congestion and traffic levels particularly in AQMAs and congestion hot spots?
Climate Change & Greenhouse Gases	■ Transport is the largest contributor to greenhouse gas emissions in the UK, with the largest contributor being domestic transport. ■ There is a need to ensure climate resilience of the transport infrastructure in KL&WN. The extent of future climate change will be strongly affected by the amount of greenhouse gases that the population chooses to emit. ■ In rural areas of KL&WN, particularly, where there are limited local facilities and fewer public transport services, many people are reliant on private transport which contributes to greenhouse gas emissions.	SEA11: Ensure that KL&WN and its transport infrastructure are resilient to the effects of climate change. SEA12: To reduce greenhouse gas emissions across the transport network, support national and local decarbonisation initiatives and incorporate climate change adaptation to help maximise resilience.	Will the TS: ■ Support low carbon and energy efficient design? ■ Increase the resilience of transport infrastructure to the impacts of climate change (including flood risk, extreme weather, heat and cold)? ■ Support the councils’ Net Zero ambitions by 2030 and 2040? ■ Support low carbon, energy efficient design? ■ Reduce levels of embodied carbon?
Noise	■ 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 National Landscapes, and other designated sites with road or rail noise reducing amenity within these areas.	SEA13: To reduce exposure to transport related noise and vibration, including noise pollution and nuisance.	Will the TS: ■ Support measures to reduce levels of noise pollution? ■ Support measures for the reduction of congestion and traffic levels particularly in areas with sensitive noise receptors?

SEA Objective	Issues & Opportunities	Proposed Objective	Supporting Appraisal Question – Will the TS...
Material Assets	- It is important that any future development of the transport network across KL&WN does not have adverse impacts or lead to 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 continued increase in renewable energy supplies across the borough, of which needs to be managed efficiently to ensure the capacity requirements of this transition are met.	SEA14: To reduce the amount of waste produced and promote sustainable use of resources. SEA15: To ensure the efficient use of land. SEA16: To ensure that critical infrastructure is protected, enhanced and increased to meet the demands of the population now and in the future.	Will the TS: - Support the use of sustainable materials? - Support the reuse of existing infrastructure? - Promote a circular economy? - Minimise the amount of waste? - Support the use of brownfield land? - Protect and enhance land quality? - Result in the loss of agricultural land? - Ensure that critical infrastructure is resilient to the effects of climate change?

7 Next Steps

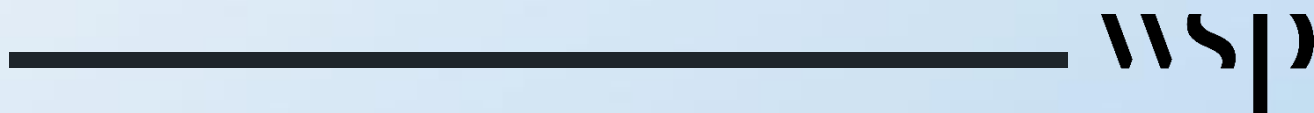
- 7.1.1. NCC is seeking the views of statutory bodies and other stakeholders on the scope of the SEA. Consultation at this stage helps to ensure that the SEA will provide a robust assessment of the TS.
- 7.1.2. Following consultation on this report, any necessary amendments will be made in responses to consultation comments and a finalised version of the report will be issued.
- 7.1.3. The next step in the SEA is the assessment stage (Stage B) during which emerging options and policies will be assessed.
- 7.1.4. The TS timetable is set out in **Table 7-1** below. The SEA report will be available for consultation alongside the draft TS as it is prepared.

Table 7-1 – SEA and TS Timetable

TS Activity	Timeframe
Scoping Consultation	Summer 2024
Consultation Draft TS	TBC
SEA Assessment	TBC
SEA Report and TS Consultation	TBC
Publication of TS and Final SEA	TBC
Post Adoption Statement	TBC

Appendix A

Review of Plans, Policies & Programmes



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 Scoping Report.

Details of relevant legislation, policies and plans per topic are provided below in **Table A-1 to Table A-12**.

Table A-1 - Review of Legislation, Policy and Plans for Population and Equalities

Messages/Issues for the development of the Transport Strategy	Document
National	<i>No subheading needed</i>
The Equality Act legally protects people from discrimination in the workplace and in wider society. It is against the law to discriminate against anyone because of: ■ 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) (2023)

Messages/Issues for the development of the Transport Strategy	Document
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. The main aim of the report is to <i>'deliver better access to jobs and key services through an accessible and socially inclusive transport system, by removing the barrier to travel and ensuring that social impacts are addressed in policy development and service delivery'</i>.	Department for Transport, Transport for Everyone: an action plan to promote equality (2012)
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)
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)

Messages/Issues for the development of the Transport Strategy	Document
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. 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.	Build Back Fairer: The Covid-19 Review (2020)

Messages/Issues for the development of the Transport Strategy	Document
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	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
The Equality policy outlines the arrangements the council has put in place to ensure they comply with the requirements of the Equality Act and fulfil their roles with regards to equalities as a community leader, service provider and employer in west Norfolk. Through this policy the council aims to ensure equality for all of their residents, visitors and employees through the delivery of accessible and fair services, by treating their employees and service users with fairness and respect, and ensuring all contractors and other third party organisations they work with share our commitment to equalities. The objectives of this policy are to: ■ Ensure appropriate consideration is given to equality issues in the design and delivery of services/functions; ■ Ensure all staff, elected members and volunteers and are aware of their responsibilities in relation to equalities; ■ Ensure that the council and the services they contract out do not discriminate against someone because of a perceived difference; ■ Remove identified barriers to participation and ensure access for all members of the community; and ■ Ensure that the council remains committed to meeting the requirements of the Equality Act 2010 and any future amendments to legislation	King's Lynn & West Norfolk Equality Policy (2018)

Messages/Issues for the development of the Transport Strategy	Document
The Core Strategy sets out the spatial planning framework for the development of the borough up to 2026 and is part of King's Lynn and West Norfolk's Local Development Framework. The Core Strategy provides guidance on the scale and location of future development for the next 15 years. It also includes the policies needed to deliver the Core Strategy vision and objectives, and a system for monitoring whether the strategy is being delivered. The societal vision of the core strategy wants to help reduce inequality wherever it exists. It wants to make sure that people have access to good quality housing and local facilities, and to help people deal with social change and ensure that a growing economy brings higher wages and an improved quality of life. The core strategy objectives for society include: ■ All communities are strong, cohesive and safe. ■ Everyone receives quality services that meet their needs. ■ Residents are active and engaged in their communities, helping to identify and respond to local needs, with cross boundary working as appropriate. ■ Housing is focused in sustainable towns; in the rural areas local demand is targeted towards sustainable villages. ■ All people are active and healthy. There is an emerging Local Plan Review for 2016-2036 (which is currently under examination).	King's Lynn & West Norfolk Borough Council Local Development Framework - Core Strategy 2011
Flourishing in Norfolk is our partnership strategy for children and young people. It is based on the Flourish ambition and shows its shared commitment to making its ambition a reality. The strategy sets out how it will: ■ Respond to the needs and aspirations of children and young people in Norfolk; ■ Work together so that all children and young people have access to the services and support they need to achieve their potential.	Flourishing in Norfolk A children and young people partnership strategy 2021-2025

Messages/Issues for the development of the Transport Strategy	Document
The plan describes how Public Health specialist staff within the council contribute to achieving Norfolk County Council's vision for Norfolk to be the place where everyone can start life well, live well and age well, and where no one is left behind. Its vision is for Norfolk to be the place where everyone can start life well, live well and age well, and where no one is left behind. Its mission looks to improve the health and wellbeing of the people of Norfolk and reduce health inequalities. Informed by best practice and evidence, it will lead the system in Norfolk to develop and focus a prevention approach to improve and sustain good health and wellbeing. It will identify opportunities to accelerate health and social care integration to ensure that people remain healthy and independent for as long as possible. It will work to improve and protect their population's health by promoting healthy lifestyles, supporting people to make healthy choices, working in partnership, and providing high quality public health service.	Public Health Strategic Plan 2022
The strategy includes the following vision: <i>'We want Norfolk to be the place where everyone can start life well, live well and age well, and where no one is left behind.</i> <i>We want our economy to be vibrant, entrepreneurial and sustainable, supported by the right jobs, skills, training and infrastructure.</i> <i>We want our communities to feel safe, healthy, empowered and connected, their individual distinctiveness respected and preserved'</i> The strategy also includes better opportunities for children and young people, as well as families. Additionally, it includes community priorities to improve communities and opportunities.	Norfolk County Council, Better Together for Norfolk, Norfolk County Council Strategy 2021-25

Messages/Issues for the development of the Transport Strategy	Document
The Joint Core Strategy DPD (JCS DPD) adopted 2011, amendments adopted January 2014, sets out policies in the Greater Norwich Area, which is developed in partnership between Broadland, Norwich and South Norfolk Councils.	Joint core strategy for Broadland, Norwich and South Norfolk (Adopted March 2011, amendments adopted January 2014)

Table A-2 – Review of Legislation, Policy and Plans for Human Health

Messages/Issues for the development of the Transport Strategy	Document
National	<i>No subheading needed</i>
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)

Messages/Issues for the development of the Transport Strategy	Document
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. 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.	Build Back Fairer: The Covid-19 Marmot Review (2020)

Messages/Issues for the development of the Transport Strategy	Document
Paragraph 96 of the NPPF states: <i>‘Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:</i> <i>a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;</i> <i>b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of attractive, well-designed, clear and legible pedestrian and cycle routes, and high-quality public space, which encourage the active and continual use of public areas; and</i> <i>c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.’</i>	National Planning Policy Framework (NPPF) (2023)
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 Institute of Highways & Transportation (CIHT), Better planning, better transport, better places (2019)

Messages/Issues for the development of the Transport Strategy	Document
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. ■ Wider effects of transport and infrastructure: Transport can facilitate social interactions and promote social inclusion.	Transport, health and wellbeing: An evidence review for the Department for Transport (2019)
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 (2020) Health Matters, Physical Activity: Prevention and management of long-term conditions
Regional/Local	<i>No subheading needed</i>
The Strategy includes the following priority: ■ Support Our Communities – to support the health and wellbeing of our communities, help prevent homelessness, assist people with access to benefits advice and ensure there is equal access to opportunities	Borough of King's Lynn and West Norfolk Corporate Strategy 2023-2027

Messages/Issues for the development of the Transport Strategy	Document
The strategy includes the following vision: <i>'We want Norfolk to be the place where everyone can start life well, live well and age well, and where no one is left behind.</i> <i>We want our economy to be vibrant, entrepreneurial and sustainable, supported by the right jobs, skills, training and infrastructure.</i> <i>We want our communities to feel safe, healthy, empowered and connected, their individual distinctiveness respected and preserved'</i> The strategy also includes priorities for the population to live healthy, fulfilling and independent lives. This includes levelling up health, prioritising living well, and improving local services.	Norfolk County Council, Better Together for Norfolk, Norfolk County Council Strategy 2021-25
The Core Strategy focuses on sustainable development, including building strong and healthy communities. One of the principles of the strategy is "Ensuring a strong, health and just society". The Strategy also aims to improve health inequalities.	Borough of King's Lynn and West Norfolk, Core Strategy 2011

Table A-3 - Review of Legislation, Policy and Plans for Economy and Employment

Messages/Issues for the development of the Transport Strategy	Document
National	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
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 overlapping development consent regimes that require multiple extra permissions from different Government agencies.	Growth and Infrastructure Act (2013)
Paragraphs 61 and 63 of the NPPF states that to determine the minimum number of homes needed, strategic policies should be informed by a local housing need assessment, conducted using the standard method in national planning guidance. 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 of establishing need, 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 ■ People wishing to commission or build their own homes.	National Planning Policy Framework (NPPF) (2023)

Messages/Issues for the development of the Transport Strategy	Document
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) (2023)
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)

Messages/Issues for the development of the Transport Strategy	Document
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: 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.	The Clean Growth Strategy (2017)
Regional/Local	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
The Strategy includes a priority to: Promote growth and prosperity to benefit West Norfolk – to create job opportunities, support economic growth, develop skills needed locally, encourage housing development and infrastructure that meets local need and promote West Norfolk as a destination. The strategy also includes a number of aims and objectives in order to support the achievement of this priority, including: ■ Work with partners to develop a shared vision for a vibrant borough ■ Attract new businesses to the borough to expand the local economy ■ Support the borough's new and existing businesses to grow and thrive ■ Work with partners and local employers to equip our local workforce with the necessary skills and knowledge to meet current and future needs ■ Maximise opportunities to transform and regenerate our high streets and heritage assets ■ Increase the number of good quality new homes and associated infrastructure built through direct provision by working with registered social landlords and private sector developers ■ Encourage private sector housing development that supports local need, delivers on local infrastructure and meets environmental and biodiversity requirements ■ Promote West Norfolk as a desirable leisure, cultural and tourism destination ■ Support a year-round programme of events, festivals and activities for residents and visitors	Borough of King's Lynn and West Norfolk Corporate Strategy 2023-2027
Core Strategy policy CS10 outlines goals for the economy and building economic growth for the Borough. This includes facilitating an increase in jobs and employment land within the Borough.	Borough of King's Lynn and West Norfolk, Core Strategy 2011

The Urban Development Strategy (UDS) is a model which aims to develop and regenerate King's Lynn. The UDS suggests a programme of structural and other improvements within the urban area of King's Lynn. It aims to facilitate the growth of the town.

The UDS is a living document which may be added to or changed with time.

There are five principles that guide the implementation of the strategy. These are:

- built environment
- transport and movement
- economy
- social provision
- viability

Based on these principles, there are four main aims which form the strategy to regenerate King's Lynn. These are:

- create a marina at Boal Quay
- reinstate the town's historic urban structure and grain
- increase and diversify activity in South Quay and waterfront
- improve first impressions of the town

Focusing development in the town centre

- focus residential development in the town centre
- create new and improve existing open spaces in the town

Improving economic viability

- provide employment premises
- strengthen north-south movement in the town centre to increase viability of the markets and town centre shops
- provide mixed use development in the town centre

Improving transport

- create two or three multi-storey car parks to replace surface parking from the town centre

Borough of King's Lynn and West Norfolk, Urban Development Strategy (2006)

Messages/Issues for the development of the Transport Strategy	Document
- investigate business case for two park and ride facilities from the outskirts of the town - provide better bus services - create a heritage trail and pedestrian and cycle Green Route through and around the town	
The Plan aims to build upon the tourism economy in West Norfolk following a decline in tourism and the tourism economy during the Covid-19 pandemic. The Plan includes six aims to improve the tourism economy: 1. Impacts on employment within the tourism sector; 2. 'Sustainable Tourism' and the natural environment; 3. Innovation and digitisation; 4. Visitor accessibility; 5. Experimental Tourism – bookable experiences; and 6. Developing the cultural product.	Borough of King's Lynn and West Norfolk, West Norfolk Tourism Development Plan 2022-26
The strategy includes the following vision: <i>'We want Norfolk to be the place where everyone can start life well, live well and age well, and where no one is left behind.</i> <i>We want our economy to be vibrant, entrepreneurial and sustainable, supported by the right jobs, skills, training and infrastructure.</i> <i>We want our communities to feel safe, healthy, empowered and connected, their individual distinctiveness respected and preserved'</i> The strategy also includes priorities for building a vibrant and sustainable economy.	Norfolk County Council, Better Together for Norfolk, Norfolk County Council Strategy 2021-25

Messages/Issues for the development of the Transport Strategy	Document
The Norfolk & Suffolk Economic Strategy outlines ambitious plans for future growth across Norfolk and Suffolk. It includes the following vision: <i>‘Our ambition is to transform our economy into a globally recognised, technology-driven and inclusive economy which is leading the transition to a zero-carbon economy through sustainable food production, clean energy generation and consumption and digital innovation; becoming one of the best places in the world to live, work, learn and succeed in business.’</i> The Strategy aims for Norfolk and Suffolk to be: ■ A higher-performing, clean, productive and inclusive economy. ■ An inclusive economy with an appropriate and highly skilled workforce, where everyone benefits from clean economic growth. ■ The place where high-growth businesses with aspirations choose to be. ■ A well-connected place, locally, nationally and internationally. ■ An international-facing economy with high-value exports. ■ A centre for the UK’s clean energy sector. ■ A place with a clear, defined, ambitious offer to the world.	New Anglia Local Enterprise Partnership’s (LEP) Norfolk and Suffolk Economic Strategy (2022)

Table A-4 - Review of Legislation, Policy and Plans for Community Safety

Messages/Issues for the development of the Transport Strategy	Document
National	<i>No subheading needed</i>
Paragraph 115 of the NPPF states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe..	National Planning Policy Framework (NPPF) (2023)

Messages/Issues for the development of the Transport Strategy	Document
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)
Although there has been an ongoing reduction of people Killed or Seriously Injured (KSI) on UK roads has generally been declining since 2005, over the last few years the number of fatalities has remained fairly consistent with a small increase in KSIs in 2013. National Highways recognise that they must continue to improve safety by investing in the road network, both to prevent incidents from occurring and to reduce the severity of those that do. By the end of 2025, they aim to continue to reduce the number of KSIs on the Strategic Road Network to support a decrease of at least 50%, against the 2005-2009 average baseline.	National Highways Delivery Plan 2020-2025 (2020)
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. The strategy outlines what the Strategic Road Network (SRN) should be like in 2050 and the steps to achieve this. Traffic growth on the SRN is predicted to be between 29% and 59% by 2050 though it has been recognised that overall trips rates for the majority of trip purposes have been declining and there is a trend of more young people not learning to drive. This has been outweighed however by the increase in journeys made by older drivers and the expectation of a continued rise in total population. National Highways is still working towards an ongoing reduction in the number of people killed or seriously injured (KSI) on the SRN to support a decrease of at least 50% by the end of 2025 (against the 2005-09 baseline) through means of increased investment and maintenance of the network whilst also working towards achieving reductions of effects on the wider environment.	Department for Transport, Road Investment Strategy: 2020-2025 (2020)

Messages/Issues for the development of the Transport Strategy	Document
Road deaths in Britain have been reducing over the past 30 years because of multiple factors such as – safer infrastructure, new vehicle technologies, hazard perception testing, tougher enforcement, shifting social attitudes and better trauma care. Part of the United Nations’ 2010 Global Plan for Road Safety promotes a five pillar approach for managing road safety – road safety management, safer roads and mobility, safer vehicles, safer road users, post-crash response.	Working together to build a safer road system: British Road Safety Statement. Department for Transport (2015)
Regional/Local	No subheading needed
The Implementation Plan is firmly focussed on achieving the strategic ambitions of our adopted LTP4 strategy. The plan includes 7 objectives to achieve the ambitions of the LTP4: ■ Embracing the future ■ Delivering a sustainable Norfolk ■ Enhancing Connectivity ■ Enhancing Norfolk’s quality of life ■ Increasing accessibility ■ Improving Transport Safety ‘Objective 6: Improving Transport Safety’ includes the target to work in partnership to achieve casualty reductions on the transport network using the Safe Systems approach.	Norfolk County Council, Local Transport Plan 4 – Implementation Plan

Messages/Issues for the development of the Transport Strategy	Document
The NCCSP's role is to work together to create safe communities for people to live, work and visit. This plan sets the direction for the Norfolk County Community Safety Partnership (NCCSP) for the next three years. The NCCSP will strengthen its response to community safety locally. To do this it will deliver its plan using an evidence led approach, with the Public Health Model of prevention at its heart. The NCCSP has four strategic themes. To deliver on these themes the strategy will: ■ Increase the understanding of key community safety issues locally, ■ Increase awareness of key issues amongst professionals and the public, ■ Prevent community safety issues from happening where possible, and ■ Responding in the right way when they do.	Norfolk County Community Safety Partnership (2021) Safer Norfolk Plan 2021-24

Table A-5 - Review of Legislation, Policy and Plans for Biodiversity and Natural Capital

Messages/Issues for the development of the Transport Strategy	Document
International	<i>No subheading needed</i>
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)

Messages/Issues for the development of the Transport Strategy	Document
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)
The 8th EAP guides EU environmental policy up to 2030 and sets ambitions for 2050. The Programme sets the following as a long-term priority objective: <i>The long-term priority objective is that, by 2050 at the latest, Europeans live well, within planetary boundaries, in a well-being economy where nothing is wasted. Growth will be regenerative, climate neutrality will be a reality, and inequalities will have been significantly reduced.</i> There are also six other priority objectives to 2030: ■ achieving the 2030 greenhouse gas emission reduction target and climate neutrality by 2050 ■ enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change ■ advancing towards a regenerative growth model, decoupling economic growth from resource use and environmental degradation, and accelerating the transition to a circular economy ■ pursuing a zero-pollution ambition, including for air, water and soil and protecting the health and well-being of Europeans ■ protecting, preserving and restoring biodiversity, and enhancing natural capital ■ reducing environmental and climate pressures related to production and consumption (particularly in the areas of energy, industry, buildings and infrastructure, mobility, tourism, international trade and the food system)	EU (2022) 8 th Environment Action Programme (EAP) to 2030

Messages/Issues for the development of the Transport Strategy	Document
This strategy is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030 and contains specific actions and commitments. These include: ■ Establishing a larger EU-wide network of protected areas on land and at sea; ■ Launching an EU nature restoration plan; ■ Introducing measures to enable the necessary transformative change; and ■ Introducing measures to tackle the global biodiversity challenge.	EU (2020) EU Biodiversity Strategy to 2030
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	<i>No subheading needed</i>
The Environment Act, which became law in 2021, acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction. The Biodiversity Gain objective requires the biodiversity value attributable to a development to exceed pre-development biodiversity value by at least 10%.	The Environment Act (2021)

Messages/Issues for the development of the Transport Strategy	Document
The 25 Year Environment Plan (YEP) 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; - 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.	25 Year Environment Plan, HM Government (2018)

Messages/Issues for the development of the Transport Strategy	Document
The Environmental Improvement Plan (EIP) 2023 for England is the first revision of the 25YEP. It builds on the 25YEP vision with a new plan setting out how Defra will work with landowners, communities and businesses to deliver each of the goals for improving the environment, matched with interim targets to measure progress. Taking these actions will help us restore nature, reduce environmental pollution, and increase the prosperity of our country. This improvement plan sets out the interim targets and the plan to deliver those goals, including measures such as: ■ A comprehensive delivery plan to halt the decline in nature by 2030; ■ A commitment to creating and restoring at least 500,000 hectares of wildlife habitat, with 70 new projects including 25 new or expanded National Nature Reserves; ■ A new pledge on access to nature with everyone to live no more than a 15 minutes' walk from a green or blue space; ■ The Species Survival Fund for domestic species at risk, like the red squirrel; and ■ Five-year interim targets to drive progress towards our long-term targets.	Department for Environment, Food & Rural Affairs (2023) Environmental Improvement Plan 2023
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)

Messages/Issues for the development of the Transport Strategy	Document
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)
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)

Messages/Issues for the development of the Transport Strategy	Document
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.” 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.	National Networks National Policy Statement (NN NPS) (2014)

Messages/Issues for the development of the Transport Strategy	Document
Paragraphs 180 and 185 to 188 of the NPPF require development to protect and safeguard biodiversity, and advise that development should aim to conserve, restore and enhance biodiversity adequately through mitigation or, as a last resort, using compensation. Proposals which aim to conserve or enhance biodiversity should be supported. 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 180 of the NPPF requires that planning decisions should be taken to enhance the natural environment by recognising the wider benefits from natural capital and ecosystem services. Further, Paragraph 181 requires plans to take a strategic approach to maintaining and enhancing green infrastructure networks and improving natural capital at a catchment or landscape scale.	National Planning Policy Framework (NPPF) (2023)
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)

Messages/Issues for the development of the Transport Strategy	Document
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. Natural capital should be seen as infrastructure in its own right, in recognition of its contribution to economic wellbeing.	The State of Natural Capital; Natural Capital Committee (2020)
Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.	Natural Environment and Rural Communities Act (2006)
Regional/Local	<i>No subheading needed</i>
This strategy sets out how we'll manage our tree stocks in a sustainable way. An important aspect of plan will be to, as far as is practicable, make the trees and woodlands more resilient in the face of threats from: ■ introduced pests ■ diseases ■ climate change A key aim will be to increase tree canopy cover in the borough by: ■ planting new trees ■ ensuring proper development of newly established trees to maximise the benefits they can provide The strategy seeks to strike a balance between: ■ maximising benefits provided by trees ■ recognising that trees can cause significant problems for home owners when in close proximity to dwellings and gardens	Borough of King's Lynn and West Norfolk, The Borough of King's Lynn and West Norfolk Tree and Woodland Strategy (2017)

Messages/Issues for the development of the Transport Strategy	Document
Within the strategy, as part of the 'Protect Our Environment' aim, includes improvements to biodiversity, including through the creation of wildflower and pollinator opportunities. Additionally, the strategy includes encouragement for local housing infrastructure to meet biodiversity requirements.	Borough of King's Lynn and West Norfolk Corporate Strategy 2023-2027
This policy includes a number of goals relating to biodiversity: ▪ Encouraging a thriving plant and wildlife community ▪ Enhancing beauty, heritage and engagement with the natural environment ▪ Enhancing biosecurity	Norfolk County Council, Environmental Policy (2019)

Messages/Issues for the development of the Transport Strategy	Document
The strategy will provide a blueprint for how Norfolk’s local communities, landowners, land managers, local authorities, private companies and government bodies can work together to broaden protection for nature in the planning system, and restore and recover it on the ground. This will include: ▪ Creating Ecological Networks: Establishing a ‘Nature Recovery Network’ to connect isolated habitats, creating corridors that promote species migration, genetic exchange, and adaptation to climate change. This approach recognises that a connected landscape is more resilient and beneficial for both wildlife and people. ▪ Enhancing Biodiversity: The protection and restoration of local wildlife, creating and improving habitats for native species. ▪ Green Space Access and Connection: Improving access to, and the quality of, green spaces and natural areas for local residents and tourists. This is both for the physical and mental health benefits they provide and to foster a deeper connection with, and appreciation for, the natural world. ▪ Using Land Sustainably: Promoting land use practices that are sustainable and nature-friendly. Including encouraging everything from sustainable agriculture and forestry practices to nature-based solutions in urban planning and development. ▪ Engaging With Communities and Partners: Involving local communities, landowners, land managers, local authorities, private companies, business, the third sector, and government bodies in the nature recovery process. This will ensure strategies are locally grounded, widely supported, and that they offer social, economic and environmental benefits. ▪ Climate Change Mitigation and Adaptation: Using natural solutions to combat climate change, such as increasing tree cover to remove carbon from the atmosphere, restoring wetlands and peatlands, and changing the way farmland is managed. ▪ Opportunities for Education: Providing opportunities for environmental education and citizen science. This will help to increase community awareness and understanding of biodiversity issues and the importance of healthy ecosystems.	Norfolk County Council, Local Nature Recovery Strategy

Table A-6 - Review of Legislation, Policy and Plans for Landscape and Townscape

Messages/Issues for the development of the Transport Strategy	Document
International	<i>No subheading needed</i>
The Council of Europe Landscape Convention promotes the protection, management and planning of the landscapes and organises international co-operation on landscape issues. Specific measures include: ▪ raising awareness of the value of landscapes among all sectors of society and of society's role in shaping them; ▪ promoting landscape training and education among landscape specialists, other related professions and in school and university courses; ▪ the identification and assessment of landscapes, ▪ analysis of landscape change, with the active participation of stakeholders; ▪ setting objectives for landscape quality, with the involvement of the public; and ▪ the implementation of landscape policies through the establishment of plans and practical programmes.	European Landscape Convention (2000) (became binding March 2007)
National	<i>No subheading needed</i>
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)
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 (NN NPS) (2014)

Messages/Issues for the development of the Transport Strategy	Document
Paragraph 180 of the NPPF requires developments to protect and enhance valued landscapes and recognise the intrinsic character and beauty of the countryside. Paragraph 182 of the NPPF states that great weight should be given to conserving and enhancing landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. Paragraph 183 of the NPPF states that when considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest.	National Planning Policy Framework (NPPF) (2023)
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)
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)
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)

Messages/Issues for the development of the Transport Strategy	Document
English Nature (now Natural England) recommends that provision should be made of at least 2 ha of accessible natural greenspace per 1000 population according to a system of tiers into which sites of different sizes fit: ■ 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.	Accessible Natural Green Space Standards in Towns and Cities: A review and Toolkit for their implementation (2003) and Nature Nearby: Accessible Green Space Guidance (2010)
Regional/Local	<i>No subheading needed</i>
The relevant local authorities (Norfolk County Council, North Norfolk District Council, Borough Council of King's Lynn and West Norfolk, Great Yarmouth Borough Council, Broad Authority) have agreed that the Norfolk Coast Partnership undertake the AONB Management Plan. The plan includes a 20-year vision for the area. The vision covers what needs protecting - and what needs changing. The aim is not for everything to remain the same and it is important to recognise the tension between the character of the area, as seen today, and change and adaptation required to meet the future. There are five themes within the plan, covering aspects of management of the area: ■ Landscape, biodiversity and geodiversity; ■ Built and historic environment; ■ Farming, forestry and fishing; ■ Sustainable communities; and ■ Access and recreation.	Norfolk Coast Partnership (2022) Norfolk Coast Areas of Outstanding Natural Beauty (AONB) Management Plan 2019-2024 (Revised 2022)

Messages/Issues for the development of the Transport Strategy	Document
The Wash East Coastal Management Strategy (WECMS) was published in 2015 for the east coast of The Wash between Wolferton Creek and the Hunstanton Cliffs. The strategy was prepared in partnership between the Environment Agency and the Borough Council, alongside stakeholder consultation. Development of the Strategy was recommended by The Wash Shoreline Management Plan 4 (2010) to implement its management recommendations. To do this the Strategy split the east coast of The Wash into three areas: ■ Unit A – Hunstanton Cliffs (managed by the Borough Council) ■ Unit B – Hunstanton Town (managed by the Borough Council) ■ Unit C – South Hunstanton to Wolferton Creek (managed by the Environment Agency) For each of these areas, the Strategy identifies the most suitable flood and coastal erosion risk management approaches which also seek to protect the natural and historic environment of the area.	Borough of King's Lynn and West Norfolk, Wash East Coastal Management Strategy (2015)
The SMP aims to identify the best ways to manage flood and erosion risk to people and the developed, historic and natural environment and to identify opportunities where shoreline management can work with others to make improvements.	North Norfolk Shoreline Management Plan

Table A-7 - Review of Legislation, Policy and Plans for Historic Environment

Messages/Issues for the development of the Transport Strategy	Document
International	<i>No subheading needed</i>
This convention sets out a framework for the identification and designation of cultural or natural heritage sites of 'outstanding universal value' as World Heritage Sites.	UNESCO, The World Heritage Convention (1972)

Messages/Issues for the development of the Transport Strategy	Document
This convention outlines protection measures for archaeological heritage assets, including the development and maintenance of an inventory of sites. The aim of this convention is to protect sites for future study, outlines the requirements to report 'chance finds', as well as controlling excavations. The input of expert archaeologists into the making of planning policies and decisions is also required under this convention.	The Valetta Convention (1992)
The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It affirms the needs for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. The convention considers comprising the following permanent properties, which are stated in Article 1: ■ Monuments: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings; ■ Groups of buildings: homogenous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units; and ■ Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.	Convention for the Protection of the Architectural Heritage of Europe, Granada (1985)
National	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
Paragraph 196 of the NPPF requires plans to set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. Paragraph 201 of the NPPF states that local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. Paragraph 205 of the NPPF states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be).	National Planning Policy Framework (NPPF) (2023)
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 (NN NPS) (2014)
An Act to consolidate and amend the law relating to ancient monuments; to make provision for the investigation, preservation and recording of matters of archaeological or historical interest and (in connection therewith) for the regulation of operations or activities affecting such matters; to provide for the recovery of grants under section 10 of the Town and Country Planning (Amendment) Act 1972 or under section 4 of the Historic Buildings and Ancient Monuments Act 1953 in certain circumstances; and to provide for grants by the Secretary of State to the Architectural Heritage Fund.	Ancient Monuments and Archaeological Areas Act 1979
This Act changed laws relating to the granting of planning permission for building works, with a particular focus on listed buildings and conservation areas. It created special controls for the demolition, alteration or extension of buildings, objects or structures of particular architectural or historic interest, as well as conservation areas.	Planning (Listed Buildings and Conservation Areas) Act (1990)

Messages/Issues for the development of the Transport Strategy	Document
This sets out broad guidelines and advice on how to enhance and conserve the historic environment through plan making and decision making.	Planning Policy Guidance – Historic Environment (2019)
The Act aims to achieve the following: • to make provision in relation to marine functions and activities; to make provision about migratory and freshwater fish; • to make provision for and in connection with the establishment of an English coastal walking route and of rights of access to land near the English coast; • to enable the making of Assembly Measures in relation to Welsh coastal routes for recreational journeys and rights of access to land near the Welsh coast; • to make further provision in relation to Natural England and the Countryside Council for Wales; • to make provision in relation to works which are detrimental to navigation; • to amend the Harbours Act 1964; and • for connected purposes.	Marine and Coastal Access Act 2009
The Government believes that the historic environment is an asset of enormous cultural, social, economic and environmental value. It makes a very real contribution to our quality of life and the quality of our places.	Historic Environment for England (2010)
Regional/Local	<i>No subheading needed</i>
The Strategy also considers the historic environment, particularly with regards to making use of the high quality historic environment and sensitive regeneration proposals. Policy CS08 also aims to protect and enhance the historic environment.	Borough of King's Lynn and West Norfolk, Core Strategy 2011
Within the urban development strategy, there are a number of sustainable development objectives, some of which apply to the historic environment. Within the Built Environment, point 2 includes ' <i>be complementary and be well linked to the historic parts of the town centre</i> '.	Borough of King's Lynn and West Norfolk, Urban Development Strategy

Messages/Issues for the development of the Transport Strategy	Document
There are a number of areas of historic environment and heritage assets within the Norfolk Coast AONB. The Strategy includes consideration to these through its vision: ‘in 2034... The quality and locally distinct character of the historic environment, including settlement form, character and patterns and in the marine environment, will be evident and valued. It will be understood, recorded, maintained and conserved as far as possible. Archaeology and historic ruins will have been well conserved and managed, or where this is not feasible will have been recorded. Traditional buildings that contribute to the character of the area will have been well maintained and conserved, including through appropriate productive use where possible. New buildings will have been located and designed to conserve and enhance landscape and settlement character. Buildings will have been sensitively adapted where necessary to incorporate features that enhance their performance in terms of both local and global environmental sustainability. New buildings, including those using innovative design, will also have these features as well as complementing their surroundings. Within the constraints of rising sea levels and storm activity the area will retain characteristic coastal settlements and road networks. Coastal settlements will be adapting to change, with new buildings and roads located where they are sustainable in the long term in respect of coastal erosion and flood risk from rivers and the sea while retaining local distinctiveness.’ Additionally, there are three objectives for the historic environment: 1. OB1 The area’s designated heritage assets will be under positive management 2. OB2 Measures to improve understanding and conservation of the area’s historic and archaeological heritage amongst partners and public will have been implemented 3. OB3 The area’s key historic environment sites most at risk from climate change-related and other impacts will be known and where appropriate mitigating measures investigated and in progress	Norfolk Coast Partnership (2022) Norfolk Coast Areas of Outstanding Natural Beauty (AONB) Management Plan 2019-2024 (Revised 2022)

Table A-8 - Review of Legislation, Policy and Plans for Water Environment

Messages/Issues for the development of the Transport Strategy	Document
International	<i>No subheading needed</i>
The main aims of the Water Framework Directive (WFD) are to: ■ prevent deterioration and enhance status of aquatic ecosystems, including groundwater ■ promote sustainable water use ■ reduce pollution ■ contribute to the mitigation of floods and droughts The WFD requires the creation of River Basin Management Plans (RBMPs). Statutory objectives are set for Scottish waters through River Basin Management Planning. These objectives are based on ecological assessments and economic judgments. The plans cover all types of water body, e.g. rivers, lochs, lakes, estuaries, coastal waters and groundwater.	Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy ("The Water Framework Directive") (2000)
Requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.	Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (2007)
This Directive establishes a regime which sets groundwater quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. The directive establishes quality criteria that takes account local characteristics and allows for further improvements to be made based on monitoring data and new scientific knowledge.	Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration (2006)
National	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
Paragraph 165 "... inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere".	National Planning Policy Framework (NPPF) (2023)
The Environment Act, which became law in 2021, acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction. Objectives for targets under consideration: ■ reduce pollution from agriculture, in particular phosphorus and nitrate ■ reduce pollution from wastewater, in particular phosphorus and nitrate ■ reduce water demand ■ improve the quality of habitat on land, including freshwater and coastal sites, expressed through the condition of our protected sites (SSSIs) ■ improve the overall status of species populations on land and in freshwaters	The Environment Act (2021)
Paragraph 5.105 "... 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 5.109 "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 5.224 "Activities that discharge to the water environment are subject to pollution control"	National Policy Statement for National Networks (2014)

Messages/Issues for the development of the Transport Strategy	Document
Paragraph 5.225 "... 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)
"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'
The Environment Agency regularly assesses the water quality of the UK's waterbodies, however many of these are not achieving the required standards and are often prevented by a number of factors and are described as 'Reasons for Not Achieving Good Status (RNAGS)'. Such pressures include pollution from towns, cities and transport affecting 18% of water bodies.	Water Targets: Detailed Evidence Report, Department for Environment Food and Rural Affairs (2022)
Regional/Local	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
The Wash East Coastal Management Strategy (WECMS) was published in 2015 for the east coast of The Wash between Wolferton Creek and the Hunstanton Cliffs. The strategy was prepared in partnership between the Environment Agency and the Borough Council, alongside stakeholder consultation. Development of the Strategy was recommended by The Wash Shoreline Management Plan 4 (2010) to implement its management recommendations. To do this the Strategy split the east coast of The Wash into three areas: ■ Unit A – Hunstanton Cliffs (managed by the Borough Council) ■ Unit B – Hunstanton Town (managed by the Borough Council) ■ Unit C – South Hunstanton to Wolferton Creek (managed by the Environment Agency) For each of these areas, the Strategy identifies the most suitable flood and coastal erosion risk management approaches which also seek to protect the natural and historic environment of the area.	Wash East Coastal Management Strategy (2015)
Describes the pressures facing the water environment and the actions that will address them, particularly in relation to water quality. The environmental objectives covered by the plan are: ■ preventing deterioration of the status of surface waters and groundwater ■ achieving objectives and standards for protected areas ■ aiming to achieve good status for all water bodies ■ reversing any significant and sustained upward trends in pollutant concentrations in groundwater ■ cessation of discharges, emissions and losses of priority hazardous substances into surface waters ■ progressively reducing the pollution of groundwater and preventing or limiting the entry of pollutants	Environment Agency (2022) Anglian river basin district (RBD) river basin management plan

Messages/Issues for the development of the Transport Strategy	Document
The Local Flood Risk Management Strategy aims to inform all groups and individuals who may have an interest in, or an ability to influence or manage flood risk, including householders, businesses, landowners, developers and risk authorities. The Local Flood Risk Management Strategy seeks to: ■ explain what flooding is, its dangers, and how flood risk can be managed; ■ inform about the extent and characteristics of flood risk in Norfolk and signpost other sources of information about flood risk in the county; ■ clarify which Risk Management Authorities are responsible for which flood risk management activities; ■ indicate the objectives of the strategy and make commitments in respect of the actions that will be taken by the Lead Local Flood Authority and other Risk Management Authorities; ■ establish a framework of policies that will ensure that riparian owners, businesses, developers and authorities apply a consistent and strategic approach to flood management; ■ outline a series of proactive measures which will increase understanding of local flood risk and identify further measures to manage those risk; ■ clarify how flood risk management is to be funded in Norfolk ■ indicate how flood risk management activities will be monitored and how the strategy will be reviewed The existing policies in the Local Flood Risk Management Strategy was reviewed in 2021 against new and emerging national strategies and policies. This has resulted in 3 new policies and minor updates to our existing policies.	Norfolk County Council (2015) Flood Risk Management Strategy

Messages/Issues for the development of the Transport Strategy	Document
The Wash East Coastal Management Strategy (WECMS) was published in 2015 for the east coast of The Wash between Wolferton Creek and the Hunstanton Cliffs. The strategy was prepared in partnership between the Environment Agency and the Borough Council, alongside stakeholder consultation. Development of the Strategy was recommended by The Wash Shoreline Management Plan 4 (2010) to implement its management recommendations. To do this the Strategy split the east coast of The Wash into three areas: ■ Unit A – Hunstanton Cliffs (managed by the Borough Council) ■ Unit B – Hunstanton Town (managed by the Borough Council) ■ Unit C – South Hunstanton to Wolferton Creek (managed by the Environment Agency) For each of these areas, the Strategy identifies the most suitable flood and coastal erosion risk management approaches which also seek to protect the natural and historic environment of the area.	Borough of King's Lynn and West Norfolk, Wash East Coastal Management Strategy (2015)
The SMP aims to identify the best ways to manage flood and erosion risk to people and the developed, historic and natural environment and to identify opportunities where shoreline management can work with others to make improvements. This strategy has two key aims: ■ to reduce the threat of flooding and erosion to people and their property ■ to benefit the environment, society and the economy as far as possible, in line with the Government's 'sustainable development principles'. These are standards set by the UK Government, the Scottish Executive and Welsh Assembly Government for a policy to be sustainable.	North Norfolk Shoreline Management Plan

Table A-9 - Review of Legislation, Policy and Plans for Air Quality

Messages/Issues for the development of the Transport Strategy	Document
International	<i>No subheading needed</i>
The Ambient Air Quality Directive provides the current framework for the control of ambient concentrations of air pollution in the EU. The control of emissions from mobile sources, improving fuel quality and promoting and integrating environmental protection requirements into the transport and energy sector are part of these aims.	Ambient Air Quality Directive (2008)
National	<i>No subheading needed</i>
The Environment Act, which became law in 2021, acts as the UK's new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction. Objectives for targets under consideration: ■ Reducing the annual mean level of fine particulate matter (PM2.5) in ambient air (as required by the Environment Bill) ■ In the long-term, reducing population exposure to PM2.5	The Environment Act (2021)
With regards to the transport sector, the 25 Year Environment Plan identifies four 'early' priorities through the 'Future of Mobility Grand Challenge'. These include encouraging new modes of transport; addressing the challenges of moving from hydrocarbon to zero emission vehicles; and Preparing for a future of new mobility services, increased autonomy, journey-sharing and a blurring of the distinctions between private and public transport.	25 Year Environment Plan, HM Government (2018)

Messages/Issues for the development of the Transport Strategy	Document
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)
Paragraph 5.12 - Accords air quality considerations substantial weight where, after taking into account mitigation, a scheme would lead to a significant air quality impact in relation to Environmental Impact Assessment (EIA) and/ or where they lead to deterioration in air quality in a zone/ agglomeration.	National Policy Statement for National Networks (2014)
Addresses action to reduce emissions from transport “as a significant source of emissions of air pollution”, in-particular oxides of nitrogen (NOx) – which is responsible for high levels of NO2 in ambient air, especially in urban areas - and particulate (PM10 and PM2.5) emissions.	Clean Air Strategy (2019)
Regional/Local	<i>No subheading needed</i>

BCKL&WN are currently developing their new Air Quality Action Plan from 2024 – 2029.

Actions have been considered under the following short-listed topics:

- Planning policy and development control interventions;
- Promoting travel alternatives and providing infrastructure improvements;
- Vehicle fleet efficiencies / improvements;
- Traffic management improvements;
- Public Information

The plan includes six priorities:

- Priority-1: To increase active travel: A modal shift to other, more sustainable forms of transport is considered a critical part of the plan, as it will lead to a reduction in private car use, improve air quality and also help to create a healthy community.
- Priority-2: Bus service improvements: Public transport (bus) service improvements comprise the next priority with a range of measures identified within the Bus Service Improvement Plan (BSIP). A reduction in the nitrogen oxide (NOx) emissions through bus engine improvements are also sought.
- Priority-3: Transport Management: Prioritising transport management / infrastructure improvements for the centre of King's Lynn to help facilitate a modal shift to more active travel is also a priority. The plans have been progressed to a high level as part of the King's Lynn Area Transport Strategy. The work includes improvements to the town centre's gyratory system in favour of cycling/walking/public transport and also a regeneration of the South Gates area. Other complimentary transport management measures include the development of a comprehensive car-parking strategy.
- Priority-4: Review of new planning developments: Minimising emissions from new developments through best practice principles is also an important aspect of the plan.
- Priority-5: Public Information; A range of interventions are also necessary to better engage the public on air quality necessary to encourage behaviour change.
- Priority-6: Air Quality Project: The final element to this AQAP is to develop a local air quality project focussed on particulate matter of less than 10 & 2.5 microns (PM10 & PM2.5).

Borough Council of King's Lynn and West Norfolk (2024) Draft Air Quality Action Plan

Table A-10 - Review of Legislation, Policy and Plans for Climate Change and Greenhouse Gases

Messages/Issues for the development of the Transport Strategy	Document
International	<i>No subheading needed</i>
The Ambient Air Quality Directive provides the current framework for the control of ambient concentrations of air pollution in the EU. The control of emissions from mobile sources, improving fuel quality and promoting and integrating environmental protection requirements into the transport and energy sector are part of these aims.	Ambient Air Quality Directive (2008)
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	<i>No subheading needed</i>
Paragraph 159 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) (2023)

Messages/Issues for the development of the Transport Strategy	Document
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)
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 (NN NPS) (2014)

Messages/Issues for the development of the Transport Strategy	Document
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 - Implementing a sustainable and effective second National Adaptation Programme	A Green Future: Our 25 Year Plan to Improve the Environment (2018)
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
Regional/Local	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
This Strategy outlines the Council's commitment to tackle climate change and includes 7 focus areas for the County moving forward: ■ Our estate ■ Indirect emissions ■ County-wide emissions ■ Promoting a green economy ■ Adapting to climate change ■ Space for nature to recover and grow ■ Engage and collaborate	Norfolk County Council, Climate Strategy (2023)
Within the Strategy and the 'Protect our environment' aim there is inclusion of '<i>considering the impact of climate within all projects and initiatives</i>'.	Borough of King's Lynn and West Norfolk, Corporate Strategy 2023-2027
The Core Strategy considers and aims to improve the impact of climate change and climate change adaptation throughout the plan.	Borough of King's Lynn and West Norfolk, Core Strategy 2011
The policy includes the following goals relating to climate change: ■ Reducing the risk of harm from environmental hazards such as flooding and drought ■ Mitigating and adapting to climate change	Norfolk County Council, Environmental Policy (2019)
The Strategy includes the following aim: ■ Climate Change Mitigation and Adaptation: Using natural solutions to combat climate change, such as increasing tree cover to remove carbon from the atmosphere, restoring wetlands and peatlands, and changing the way farmland is managed.	Norfolk County Council, Local Nature Recovery Strategy

Table A-11 - Review of Legislation, Policy and Plans for Noise and Vibration

Messages/Issues for the development of the Transport Strategy	Document
National	<i>No subheading needed</i>
Paragraph 191 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) (2023)
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)

Table A-12 - Review of Legislation, Policy and Plans for Material Assets

Messages/Issues for the development of the Transport Strategy	Document
National	<i>No subheading needed</i>
The Environment Act, which became law in 2021, acts as the UK’s new framework of environmental protection. The Environment Act allows the UK to enshrine better environmental protection into law. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction. Objectives for targets under consideration ■ increase resource productivity ■ reduce the volume of ‘residual’ waste we generate	The Environment Act (2021)
Paragraph 180 states: “... 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”. Paragraph 215 to 223 also seeks to facilitate the sustainable use of minerals. Paragraph 216 encourages so far as practicable, planning policies should “<i>take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously</i>”.	National Planning Policy Framework (NPPF) (2023)

Messages/Issues for the development of the Transport Strategy	Document
Paragraph 5.117 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. Paragraph 5.168 states <i>“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”</i>. Paragraph 5.19 states <i>“Evidence of appropriate mitigation measures (incorporating engineering plans on configuration and layout and use of materials) in both design and construction should be presented”</i>.	National Policy Statement for National Networks (NN NPS) (2014)
Goal 5 ‘Clean and plentiful water’ involves using resources from nature more sustainably and efficiently. The plan states: <i>“Improve our approach to soil management: by 2030 we want all of England’s soils to be managed sustainably, and we will use natural capital thinking to develop appropriate soil metrics and management approaches”</i> .	A Green Future: Our 25 Year Plan to Improve the Environment (2018)
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.	Out Waste, Our Resources: A Strategy for England (2018)
Regional/Local	<i>No subheading needed</i>

Messages/Issues for the development of the Transport Strategy	Document
The policy includes the following objectives relating to materials, resources, and waste: ■ Using resources from nature more sustainably and efficiently ■ Minimising waste ■ Managing exposure to chemicals The policy also includes policies relating to utilising land sustainably, increasing resource efficiency and reducing pollution and waste.	Norfolk County Council, Environmental Policy (2019)
The Strategy aims to provide the foundations for an integrated, total transport solution which serves the growing economy, links people and their activities with developing Priority Places and is fit for agile digital, socio-economic and transport developments.	Integrated Transport Strategy for Norfolk and Suffolk 2018
The Implementation Plan is firmly focussed on achieving the strategic ambitions of our adopted LTP4 strategy. The plan includes 7 objectives to achieve the ambitions of the LTP4: ■ Embracing the future ■ Delivering a sustainable Norfolk ■ Enhancing Connectivity ■ Enhancing Norfolk's quality of life ■ Increasing accessibility ■ Improving Transport Safety	Norfolk County Council, Local Transport Plan 4 – Implementation Plan

Messages/Issues for the development of the Transport Strategy	Document
In planning for mineral extraction and waste management facilities to meet Norfolk's future needs in the most sustainable way, the Core Strategy will: ■ Help to reduce emissions of greenhouse gases and thus mitigate climate change and ensure that Norfolk is seen as a leader in this area; ■ Protect Norfolk's special and distinctive natural and cultural heritage, especially in areas such as the Broads, the North Norfolk Coast and the Brecks, and help to develop the county's ecological network; ■ Minimise adverse impacts on the transport system and promote opportunities for more sustainable transport; ■ Maintain the amenity and well being of people living in close proximity to mineral extraction and associated development and waste management facilities through effective mitigation measures and provide long term benefits through restoration; and ■ Safeguard important and finite mineral resources from inappropriate development, particularly the nationally-significant deposits of silica sand in the county. The Strategy also outlines a number of aims and objectives, including: ■ To meet minerals and waste requirements in a sustainable manner and help to deliver sustainable growth; ■ To reduce the impact of mineral extraction and associated development and waste management facilities on the transport system; ■ To protect and enhance the natural, historic and built environment in relation to mineral extraction and associated development and waste management facilities; ■ To mitigate climate change; ■ To promote social inclusion and human health and wellbeing.	Norfolk County Council (2010) Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026

Appendix B

Figures

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Appendix C

Responses to the Scoping Consultation

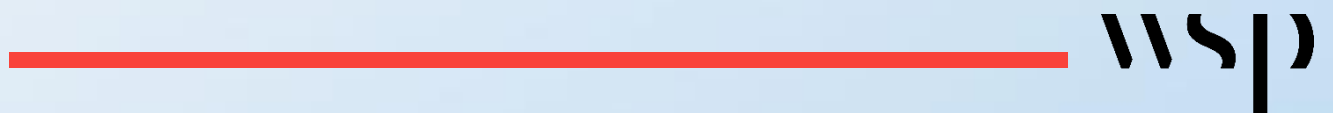


Table C-1 – Responses to the Scoping Consultation

ID	Date	Consultee	Comment	Summary of Action Taken
1	06/08/2024	Environment Agency	We have no comments to make regarding the King's Lynn Transport Strategy - SEA Scoping Consultation.	General Comment - no action required.
2	20/06/2024	Natural England	Thank you for your consultation on the above dated 11 June 2024. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. We welcome this opportunity to comment on the King's Lynn Transport Strategy Scoping Report. Natural England considers that an environmentally sustainable transport system should protect and enhance the natural environment, as well as delivering economic and social benefits. Transport effects the natural	General Comment - no action required.

ID	Date	Consultee	Comment	Summary of Action Taken
			environment and people's experience of it, in the following areas: • Biodiversity, landscape, geodiversity and soils – through direct and indirect impacts from lands take and traffic; • Climate change and energy; • Quality of life – through people's access to, and experience of, the natural environment including the provision of green infrastructure and through links between walking, cycling, health and wellbeing.	
3	20/06/2024	Natural England	Designated Sites Paragraphs 186-188 of the National Planning Policy Framework - GOV.UK (www.gov.uk) (NPPF) set out the principles for determining applications impacting on Sites of Special Scientific Interest (SSSI) and habitats sites. Both the direct and indirect impacts of the development should be considered. A Habitats Regulations Assessment is needed where there is a likely significant effect on a habitats site and Natural England must be	WSP will consider the effects of transport projects on local heritage sites within both the SEA assessment of interventions and the transport plan and HRA. The Natural England approach will also be considered within this assessment.

ID	Date	Consultee	Comment	Summary of Action Taken
			consulted on any 'appropriate assessments' undertaken by the Competent Authority. We refer you to Appropriate assessment - GOV.UK (www.gov.uk) for more information. Natural England must also be consulted where development is in or likely to affect a SSSI and we recommend consideration of SSSI Impact Risk Zones to aid the identification of any potential environmental risks to designated sites. We advise that where a transport project is within 200m of a European site, impacts to the site should be assessed in line with Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001) guidance. Where a transport project is likely to have a significant effect on the natural environment, we advise conformity with the avoidance-mitigation-compensation hierarchy. Less	

ID	Date	Consultee	Comment	Summary of Action Taken
			damaging alternatives should be considered with regards to impacts to high value ecological and landscape receptors, including those of international and national importance (SACs, SPAs, Ramsar sites, SSSIs, protected species).	
4	20/06/2024	Natural England	Biodiversity Net Gain Development should provide net gains for biodiversity in line with the NPPF paragraphs 180(d), 185 and 186. Major development (defined in the National Planning Policy Framework (publishing.service.gov.uk) glossary) is required by law to deliver a biodiversity gain of at least 10% from 12 February 2024. For nationally significant infrastructure projects (NSIPs), it is anticipated that the requirement for biodiversity net gain will be implemented from 2025. Biodiversity net gain - GOV.UK (www.gov.uk) provides information on biodiversity net gain, the mitigation hierarchy and wider environmental net	NCC will incorporate biodiversity net gain within the development of individual interventions that may arise from the TS.

ID	Date	Consultee	Comment	Summary of Action Taken
			gain and includes a link to the draft Planning Practice Guidance. The statutory biodiversity metric should be used to calculate biodiversity losses and gains for terrestrial and intertidal habitats and can be used to inform any development project. We refer you to Calculate biodiversity value with the statutory biodiversity metric - GOV.UK (www.gov.uk) for more information. The mitigation hierarchy as set out in paragraph 186 of the NPPF should be followed to firstly consider what existing habitats within the site can be retained or enhanced. Where on-site measures are not possible, provision off-site will need to be considered. Development also provides opportunities to secure wider biodiversity enhancements and environmental gains, as outlined in the NPPF (paragraphs 8, 74, 108, 124, 180, 181 and 186). Opportunities for enhancement might include incorporating features to support	

ID	Date	Consultee	Comment	Summary of Action Taken
			specific species within the design of the project to encourage wildlife.	
5	20/06/2024	Natural England	Local Nature Recovery Strategies Local Nature Recovery Strategies (LNRS) are a new England-wide system of spatial strategies, designed to support the restoration and recovery of nature. The main purpose of the strategies is to identify locations to create or improve habitat most likely to provide the greatest benefit for nature and the wider environment. Local Planning Authorities have a duty to 'take account' of their relevant LNRS, therefore, we advise that any decisions about transport development should consider any potential impacts, and/or possible contribution to the Norfolk Local Nature Recovery Strategy to support nature restoration. Further general information on LNRS can be found here and details of how to incorporate LNRS when planning for BNG can be found here.	WSP will consider the effects of any TS policy or intervention on local landscapes, including contributing to the Local Nature Recovery Strategy.

ID	Date	Consultee	Comment	Summary of Action Taken
6	20/06/2024	Natural England	Green Infrastructure We advise that green infrastructure should be implemented into any transport projects where possible. For evidence-based advice and tools on how to design, deliver and manage green and blue infrastructure (GI) we refer you to Natural England's Green Infrastructure Framework. GI should create and maintain green liveable places that enable people to experience and connect with nature, and that offer everyone, wherever they live, access to good quality parks, greenspaces, recreation and walking/cycling routes that are inclusive, safe, welcoming, well-managed and accessible for all. GI provision should enhance ecological networks, support ecosystems services and connect as a living network at local, regional and national scales. Development should be designed to meet the 15 GI How Principles (naturalengland.org.uk). The GI	NCC will consider the incorporation of green infrastructure within the development of individual interventions that may arise from the TS.

ID	Date	Consultee	Comment	Summary of Action Taken
			Standards can be used to inform the quality, quantity and type of GI to be provided. Major development should have a GI plan including a long-term delivery and management plan. Relevant aspects of local authority GI strategies should be delivered where appropriate. The Green Infrastructure Map (naturalengland.org.uk) and GI Mapping Analysis (naturalengland.org.uk) are GI mapping resources that can be used to help assess deficiencies in greenspace and identify priority locations for new GI provision.	
7	20/06/2024	Natural England	Protected Landscapes The statutory purpose of the National Landscape is to conserve and enhance the area's natural beauty. Where transport infrastructure is being built and/or improved within, or close to a National Landscape (in this instance the Norfolk Coast Protected Landscape), an assessment should be made as to whether the proposed	WSP will assess effects on landscape as part of the SEA assessment of the TS and consider the location of any intervention and policy within the TS in relation to

ID	Date	Consultee	Comment	Summary of Action Taken
			development would have a significant impact on or harm that statutory purpose. Consequently, a landscape and visual impacts assessment may be necessary to determine magnitude of impact and any possible mitigation. When considering potential impacts, a decision should be guided by paragraph 182 and 183 of the National Planning Policy Framework, which requires great weight to be given to conserving and enhancing landscape and scenic beauty within National Landscapes, and states that the scale and extent of development within all these areas should be limited. We also advise that you consult the relevant National Landscape Partnership (the Norfolk Coast Partnership). Their knowledge of the site and its wider landscape setting, together with the aims and objectives of the area's statutory management plan, will be a valuable contribution when considering impacts and mitigation.	National Landscapes, and identify potential for significant negative effects where appropriate. NCC will undertake a Landscape and Visual Impact Assessment for any individual interventions that may arise from the TS that may have a significant harm on a National Landscape.

ID	Date	Consultee	Comment	Summary of Action Taken
8	20/06/2024	Natural England	Best and most versatile agricultural land and soils Decisions about transport development should take full account of the impact on soils, their intrinsic character and the sustainability of the many ecosystem services they deliver. The Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (publishing.service.gov.uk) provides guidance on soil protection, and we recommend its use in the design and construction of development. Further information is contained in the Guide to assessing development proposals on agricultural land - GOV.UK (www.gov.uk). Find open data - data.gov.uk on Agricultural Land Classification or use the information available on MAGIC (defra.gov.uk).	WSP will assess effects on the best most versatile agricultural land as part of the SEA assessment of the TS and consider the likely effects of any intervention and policy within the TS in relation to loss of BMV land.
9	16/07/2024	Historic England	Thank you for consulting us on the King's Lynn Transport Strategy, Strategic Environment Assessment Scoping Report (June 2024). As the Government's adviser on the historic	General Comment - no action required.

ID	Date	Consultee	Comment	Summary of Action Taken
			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 Sustainability Appraisal Scoping report. Please note that Historic England have produced advice entitled Sustainability Appraisal and Strategic Environmental Assessment Historic England Advice Note 8 can be found at: <https://historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/heag036-sustainability-appraisal-strategic-environmental-assessment/> We hope that you find the following comments and suggestions helpful.	
10	16/07/2024	Historic England	Chapter 1 Introduction Please clarify if this is for Sustainability Appraisal or Strategic Environmental	WSP have amended titles for consistency.

ID	Date	Consultee	Comment	Summary of Action Taken
			Assessment. Both terms appear within the document e.g. front cover SA, Contents page SEA.	
11	16/07/2024	Historic England	Chapter 2 The Transport Strategy Para 2.2.1 Vision Please add the word 'historic,' before built.	NCC will consider the inclusion of the word historic within the TS Vision.
12	16/07/2024	Historic England	Para 2.2.1 Objectives Please amend the 5th bullet point as follows: Protect and enhance King's Lynn's heritage historic and cultural environment through placemaking	NCC will consider amending the TS objectives to state historic environment.
13	16/07/2024	Historic England	Chapter 4 Policy Context Para 4.1.5 and Appendix A We note that you list key Plans, Policies and Programmes in Appendix A. When considering key plans and programmes, we also recommend the inclusion and consideration of the following: National	WSP will consider and include these additional policies within Chapter 4 and Appendix A where necessary.

ID	Date	Consultee	Comment	Summary of Action Taken
			• Planning (Listed Buildings & Conservation Areas) Act 1990 • Ancient Monuments & Archaeological Areas Act 1979 • Marine and Coastal Areas Access Act 2009 • Government's statement on the Historic Environment • National Planning Practice Guidance Local • Local Plans (Why is Great Yarmouth's LP included?) • East Marine Plan • Historic Environment Record • Heritage/Conservation Strategies • Other Strategies (e.g. cultural or tourism) • Conservation Area Character Appraisals and Management Plans • Listed building Heritage Partnership Agreements	

ID	Date	Consultee	Comment	Summary of Action Taken
14	16/07/2024	Historic England	Table 4-1 Key Policy Messages Historic Environment Please amend the wording as follows: • Conserve and enhance the integrity and setting significance of internationally, nationally and locally designated and non-designated cultural and historical heritage assets as well as those which are undesignated; • Ensure that transport development adjacent, or in close proximity to the local conservation areas, designated heritage assets (Conservation Areas, Listed Buildings, Scheduled Monuments and Registered Parks and Gardens), non- designated heritage assets and archaeological remains or listed buildings, respects their character and context setting, and does not detract from the quality of the built environment.	WSP will amend the wording within Table 4-1 as suggested.
15	16/07/2024	Historic England	Chapter 5 Baseline, Issues and Opportunities 5.8 Historic Environment	General Comment - no action required.

ID	Date	Consultee	Comment	Summary of Action Taken
			Baseline We welcome the use of the term 'Historic Environment'. This is considered the best and most appropriate term to use as a topic heading as it encompasses all aspects of heritage, for example the tangible heritage assets and the less tangible cultural heritage.	
16	16/07/2024	Historic England	The paragraph numbers seem to be a little muddled.	WSP will check and amend paragraph numbers within Section 5.8
17	16/07/2024	Historic England	We welcome reference to designated assets (scheduled monuments, listed buildings and registered parks and gardens). In NPPF terms, Conversation Areas are also designated heritage assets. We welcome inclusion of the map of designated heritage assets at Figure B8	General Comment - no action required.
18	16/07/2024	Historic England	We welcome reference to non-designated and unknown heritage.	General Comment - no action required.

ID	Date	Consultee	Comment	Summary of Action Taken
19	16/07/2024	Historic England	We welcome the reference to Heritage at Risk.	General Comment - no action required.
20	16/07/2024	Historic England	Para 5.8.2 It might be helpful to mention the discovery of Seahenge at Holme-next-the-Sea.	WSP will include the discovery of Seahenge at Holme-next-the-Sea within Section 5.
21	16/07/2024	Historic England	Table 5.11 Sustainability Issues We consider that that bullet two should be amended to read: • New and/or updated transport infrastructure in the vicinity of designated heritage assets such as scheduled monuments and listed buildings can have an impact on their setting. And the addition of a new bullet covering historic landscapes and townscapes: • The character and quality of Kings Lynn's historic landscapes and townscapes can be eroded by the construction and operation of transport infrastructure.	WSP will amend and include the additional bullet points suggested.

ID	Date	Consultee	Comment	Summary of Action Taken
22	16/07/2024	Historic England	Chapter 6 Sustainability Framework Table 6.1 SEA Appraisal Framework - Historic Environment We support the inclusion of table 6-1 on page 61 highlighting key sustainability issues and problems for the historic environment, but request that the ‘Sustainability Issues Identified’ are amended to reflect the changes to ‘Sustainability Issues’ outlined above.	WSP will amend Table 6-1 to reflect changes to Table 5-11.
23	16/07/2024	Historic England	In relation ‘Sustainability Objective’ number 7, we request that this amended to read: • To protect and enhance the historic environment, including heritage assets (designated and non-designated) and their settings where this contributes to their significance, and / or allows their significance to be appreciated.’	WSP will amend Objective 7 to reflect the changes suggested.
24	16/07/2024	Historic England	We welcome the Supporting Appraisal Questions in the final column.	General Comment - no action required.

ID	Date	Consultee	Comment	Summary of Action Taken
25	16/07/2024	Historic England	Finally, as discussed, the character and quality of Norfolk's historic landscapes and townscapes can be eroded by the construction and operation of transport infrastructure, and to this end we request the addition of two new appraisal questions to ensure that these potential impacts are properly considered: • Protect, enhance and manage the character and appearance of historic landscapes/seascapes/townscapes, maintaining local character, distinctiveness and sense of place? • Achieve high quality sustainable design for buildings, spaces and the public realm?	WSP will include the additional appraisal questions within historic environment.
26	16/07/2024	Historic England	Conclusion We hope that you find these observations and suggestions helpful. In preparation of the Strategic Environmental Assessment we encourage you to draw on the knowledge of local conservation	General Comment - no action required.

ID	Date	Consultee	Comment	Summary of Action Taken
			officers, the county archaeologist and local heritage groups. Please note that absence of a comment on any aspect of this scoping report in this letter does not mean that Historic England is content that the document forms part of a positive strategy for the conservation and enjoyment of the historic environment or is devoid of historic environment issues. Finally, we should like to stress that this opinion is based on the information provided by the Council in its consultation. To avoid any doubt, this does not affect our obligation to provide further advice and, potentially, object to specific proposals, which may subsequently arise where we consider that these would have an adverse effect upon the historic environment. We hope that the above comments of assistance.	

Appendix D

ASSESSMENT OF THE TRANSPORT STRATEGY UPDATE



Policy 1: Support Growth and New Development

Description: Norfolk County Council (NCC) will work in partnership, including with developers, to ensure transport measures, including sustainable transport options, support new housing developments and employment sites.

Alternatives:

- To not work in partnership with other councils and instead act in isolation – This is not considered a reasonable alternative and has therefore not been assessed under the SEA Framework.
- To do nothing and accept what comes as part of the development process with the understanding that it may not fully meet the TS objectives or objectives of overarching strategies – This is considered a reasonable alternative and has been assessed under the SEA Framework.

Policy 1 aims to support the delivery of new housing developments and employment sites by working in partnership and providing appropriate transport measures, including sustainable transport options.

Table D-1 – Assessment of the effects of Transport Strategy Policy 1 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
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Population & Equalities			King's Lynn and West Norfolk (KL&WN) has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. By working with partners to inform decisions on how incorporating sustainable transport and active transport options may be best placed, and seeking to mitigate adverse effects of development on the current transport network, Policy 1 aims to ensure that there is necessary transport infrastructure to support the transition to a clean transport network, providing benefits to both the urban and rural population of King's Lynn. It is anticipated that transport measures may involve improvements to the scale and scope of the public transport and active transport network, and improvements to connectivity and accessibility. The proposed policy will therefore aid in the development of secure and sustainable transport networks, contributing significantly to the achievement of the SEA objective. However, minor negative effects have been identified as transport measures in support of new housing developments and employment sites will likely require construction of new infrastructure, as well as updates and works to existing infrastructure to improve connections, which may have potential negative impacts on the local community if access is severed, and localised traffic is increased although this should be temporary. Transport assessments will be undertaken to identify localised impacts of new development and infrastructure and transport interventions across all modes of transport will be identified to mitigate those
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SEA Objective	Policy	Alternatives	Description of effects
			impacts. Overall, a significant positive effect has been assessed against this SEA Objective. The reasonable alternative will likely include new infrastructure and improvements to existing infrastructure that may somewhat contribute to a positive effect for populations and equalities. However, the alternative may not fully meet the objectives or align with the objectives of the overarching strategies as it unlikely to proportionately support both rural and urban communities and improve access to services. The proposed alternative is unlikely to deliver sufficient benefits to the population and equalities objective and has therefore been awarded a mixed score.

Human Health	+	+/-/?	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. Developing and maintaining new transport measures to support growth, such as active travel routes, across the King's Lynn area will encourage residents and visitors to take part in more walking and cycling, improving physical activity rates and therefore physical and mental health. Improvements to the public transport and active transport network may also aid in preventing social isolation in rural and urban areas. Although the exact location and scale of transport measures are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective. Additionally, improving noise and air quality as a result of encouraging a modal shift away from private vehicle usage will also improve physical health, particularly for children, the elderly, pregnant women and those with respiratory conditions exacerbated by poor air quality. However, minor negative effects have been identified as transport measures in support of new housing developments and employment sites will likely require construction of new infrastructure, as well as updates and works to existing infrastructure to improve connections, which may lead to temporary reductions in air quality due to dust and construction traffic. Potential negative effects on air quality
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SEA Objective	Policy	Alternatives	Description of effects
			should be mitigable with best practice construction measures, such as implementation of a Construction Traffic Management Plan (CTMP) and Construction Environmental Management Plan (CEMP), during construction. Overall, mixed effects have been assessed against this SEA Objective. The reasonable alternative will likely include new infrastructure and improvements to existing infrastructure, and therefore the positive and negative effects outlined above are also applicable. However, it is uncertain if leaving it to market will meet the objectives or objectives of overarching strategies.

Economy & Employment	++/-	-	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Developing new active travel routes and improving the scale and scope of public transport will contribute to improving access across the area, including within rural areas. This will provide improved accessibility to services, town centres, and employment sites. Additionally, developing new routes and new transport infrastructure may contribute to increasing employment and training opportunities within the area. However, the exact scale and location of the proposed transport measures to support new housing developments and employment sites is currently unknown. As new travel routes will likely increase accessibility of rural areas to employment sites and other locations key to the economy, a significant positive effect has been assessed against this SEA Objective. Minor negative effects have been identified due to the potential for new transport infrastructure to negatively impact the Norfolk Coast National Landscape, which holds great importance as a tourist destination and contributes to the tourism economy within KL&WN. However, improved opportunity for sustainable transport may contribute to more sustainable tourism and reduced traffic, having positive effects on the tourism economy. The reasonable alternative will likely include new infrastructure and improvements to existing infrastructure, however, the proposed alternative is unlikely to include
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SEA Objective	Policy	Alternatives	Description of effects
			appropriate transport measures to keep up with population growth and the current transport network may not have the capacity to cope with the additional trips generated by new housing and employment sites. Therefore, minor negative effects have been identified for the reasonable alternative.
Community Safety	+	+	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. The development of new transport measures to support growth and development, such as improving active travel routes and public transport networks, improving access to town centres and employment sites, will likely contribute to improved feelings of safety along routes. This assessment is based on the assumption that community safety will be embedded into design, following national policy, however exact measures are currently unknown. Overall, a minor positive effect has been assessed against this SEA Objective. The reasonable alternative will likely include new infrastructure and improvements to existing infrastructure, and therefore the positive effects outlined above are also applicable.

Biodiversity & Natural Capital	+/-	+/-	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. There is potential for negative effects on biodiversity as a result of the development of new transport measures that require land take. This may result in permanent losses of biodiversity, and temporary increases in disturbance to local habitats during construction as a result of noise, vibration and reduced air quality. Although the location of infrastructure and details of materials to be used are not known, a minor negative effect has been assessed against this SEA Objective. A minor positive effect is likely from schemes that deliver new infrastructure of sufficient scale will be required to deliver Biodiversity Net Gain (BNG) under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. Potential positive effects may also arise as a result of encouraging a modal shift away from private car use, improving air quality across the County, and reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. The reasonable alternative will likely include new infrastructure and improvements to existing infrastructure, and therefore the effects outlined above are also applicable.
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Landscape, Seascape & Townscape	+/-	+/-	There is 1 designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Development of new and improvement of existing transport infrastructure brings opportunity to incorporate green infrastructure into design, contributing to the landscape and townscape character of the area. Improved transport infrastructure could also contribute to sustainable transport to landscape assets such as the Norfolk Coast National Park, reducing traffic and leading to positive effects. This could result in a minor positive effect on this SEA Objective, although the location and detail of infrastructure is unknown. Construction works could however result in temporary adverse effects on landscape and townscape character and quality, and visual amenity. Negative effects could be significant if they are to impact the Norfolk Coast National Landscape. New above ground infrastructure is likely to be introduced in support of new developments, which is likely to lead to adverse effects on landscape and townscape character. Negative effects could be significant if new infrastructure is to impact the Norfolk Coast National Landscape. The location of new infrastructure is unknown at this stage, resulting in uncertainty around the magnitude of effect. As negative impacts on the character and quality of the Norfolk Coast National Landscape, including visual amenity, are likely to be avoided based on policy and protection measures, it is concluded that Policy 1 would have a minor negative effect on Landscape and Townscape. These effects could be mitigated through best use construction measures, and consideration of landscape and townscape character, including designated sites, during planning and routing of transport infrastructure.
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SEA Objective	Policy	Alternatives	Description of effects
			As the proposed alternative will also likely include new infrastructure and works on existing infrastructure in uncertain locations, the effects outlined above are also applicable.

Historic Environment	+/-	-	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Development of new and improvement of existing transport infrastructure brings opportunity to enhance the setting of heritage assets through development of schemes that can reduce traffic and noise, and enhance accessibility around heritage assets. This could result in a minor positive effect on this SEA Objective, although the location and detail of infrastructure is unknown. Construction associated with both new and existing infrastructure may have negative impacts on designated historic assets, through potential damage, restricted access, impacts on visual amenity and noise and air pollution. Impacts associated with construction are anticipated to be temporary. Excavation associated with construction of new infrastructure may impact non-designated and unknown buried heritage assets, which could be of high value. Areas such as the Norfolk Coast National Landscape are rich in archaeological and historical sites, including assets of internationally recognised value. Much of this may be as yet undiscovered and could be damaged during construction of transport infrastructure. Although the location of construction work is unknown and may impact heritage assets, effects should be avoided through policy and planning and construction best practice, therefore it has been concluded that there would be a minor negative effect against this SEA Objective for Policy 1. As the proposed alternative will also likely include new infrastructure and works on existing infrastructure in uncertain locations, the effects outlined above are also
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SEA Objective	Policy	Alternatives	Description of effects
			applicable. However, significant negative effects on this SEA Objective may be more likely, as the overall Objective to protect and enhance King's Lynn's heritage and cultural environment may not be incorporated into all development, reducing the likelihood of positive effects.

Water Environment	+/-	+/-	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to Water Framework Directive (WFD) targets. Development of new and improvement of existing transport infrastructure brings opportunity to incorporate green infrastructure, including Sustainable Drainage Systems (SuDS), into design. This could result in a positive effect on this SEA Objective through improved drainage, reducing discharge from roads and surface water flooding. Although the exact location and scale of transport measures are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective New infrastructure could result in additional concrete or other impermeable surface area within KL&WN. This could lead to negative effects through increased flood risk, particularly as the area is susceptible to flooding with 810 properties at risk of surface water flooding. Although the exact location and scale is unknown, should new infrastructure fall within a Flood Zone 3, it is likely that the effects could be significant Construction works could lead to pollution of the water environment including aquifers, rivers and streams, through noise, dust, and surface runoff entering waterbodies leading to a reduction in quality. These effects are mitigable through best practice construction measures, but there is concluded to be a residual minor negative effect due to the remaining potential for pollution. During operation of new transport infrastructure, increased emissions, noise pollution, dust and other associated pollution could result in a reduction in water quality depending on location. However, the anticipated inclusion of sustainable transport could lead to a reduction in pollution through reduced congestion and
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SEA Objective	Policy	Alternatives	Description of effects
			emissions. Due to the anticipated scale of the Policy and mitigation measures, it is concluded that there is a minor positive effect on this SEA Objective. As the proposed alternative will also likely include new infrastructure and works on existing infrastructure in uncertain locations, the effects outlined above are also applicable. However, the transition to sustainable transport will be realised more slowly without the updated TS Objectives, so although minor positive effects are assessed for both the policy and its alternative, those positive effects are lesser for the alternative.

Air Quality	+/-	+/-	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMA's are in King's Lynn and have been designated for exceedances of nitrogen dioxide. Improved infrastructure, a move to EV's in line with government policy, and increased use of sustainable and active travel could improve the flow of traffic, reduce congestion, and therefore improve air quality through a reduction in air pollution due to more efficient driving and lower use of private internal combustion engine (ICE) vehicles. This is anticipated to have a minor positive effect against this SEA Objective. Implementation of the Policy could lead to temporary reductions in air quality during construction, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. This could lead to negative effects on air quality. Reductions in air quality, during construction or operation, that occur in or near an AQMA could lead to significant negative effects on this SEA Objective. However, potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Therefore, a minor negative effect has been assessed against this SEA Objective. As the proposed alternative will also likely include new infrastructure and works on existing infrastructure in uncertain locations, the effects outlined above are also applicable. Although the alternative would not enact the Transport Strategy's Objective to improve local air quality and King's Lynn's natural environment and reduce overall transport emissions, through actions such as increased EV usage and improve sustainable transport, the Borough has an Air Quality Action Plan in place that outlines measures to be taken regarding both AQMA's. Due to this, it is
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SEA Objective	Policy	Alternatives	Description of effects
			likely that the alternative would also result in positive effects against this SEA Objective, though the magnitude of this is uncertain.

Climate Change & Greenhouse Gases	+	+/-	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. KL&WN is also susceptible to the impacts of a changing climate, through sea level rise and coastal erosion due to its coastal setting, as well as increased extreme weather events and temperature change. A large area of the borough is expected to be at increased flood risk and sea level rise by 2030. New and improved transport infrastructure could provide opportunities to increase the number of EV charging stations, improve sustainable transport and promote low carbon and energy efficient design. This would support the council's net zero ambitions. More EVs and more sustainable design in use could result in lower greenhouse gas emissions, leading to a positive effect on this SEA Objective. Depending on the materials used, there is also an opportunity to reduce embodied carbon during construction. Although details on materials are not known, this has been scored as a minor positive effect. Improved sustainable transport could work to reduce the number of private vehicles in use, also having a positive effect on this SEA Objective. Improved infrastructure could improve the flow of traffic, reducing congestion, and therefore improving air quality through a reduction in greenhouse gas emissions due to more efficient driving. This is anticipated to have a minor positive effect against this SEA Objective. Improved infrastructure also brings opportunity to implement green infrastructure & SuDS. This will help to further increase climate change resilience through increasing resilience to flooding, as well as CO₂ drawdown, though the extent of this is dependent on the extent and type of vegetation used. As the proposed alternative will also likely include new infrastructure and works on existing infrastructure in uncertain locations, the effects outlined above are also
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SEA Objective	Policy	Alternatives	Description of effects
			applicable. Although the alternative would not enact the Transport Strategy's Objective to improve local air quality and King's Lynn's natural environment and reduce overall transport emissions, the Borough has an Air Quality Action Plan in place, outlining measures to be taken regarding EV charging infrastructure. Due to this, it is likely that the alternative would also result in positive effects against this SEA Objective, though the magnitude of this is uncertain.

SEA Objective	Policy	Alternatives	Description of effects
Noise	+/-	+/-	There are a number of Noise Important Areas (NIAs) within the KL&WN borough, concentrated in and around town centres and along major roads. Development of new transport infrastructure will lead to opportunities for implementation of more sustainable transport infrastructure, which could help to reduce noise and congestion. If planned and located appropriately, this could reduce traffic and rail derived noise in NIAs, resulting in minor positive effects. Although the exact location and scale of transport measures are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective Construction associated with new and upgraded infrastructure will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects. If increased noise levels are near to or within sensitive receptors, or lead to designation of new Noise Important Areas, effects may be significant. However, construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP. As the location of works is not known effects are uncertain. Reflecting the likelihood of mitigation, this is scored as a minor negative effect. As the proposed alternative will also likely include works on existing infrastructure in uncertain locations, the positive and negative effects outlined above are also applicable. However, as there will be no proactive improvement to strategic connections, negative effects are likely to be associated with maintenance of infrastructure, and there will be less opportunity to incorporate sustainable design, resulting in reduce positive effects.

Material Assets	++/--/?	++/--/?	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. There are a number of opportunities provided by development of new and upgrade of existing infrastructure that could result in positive effects against this SEA Objective. Supporting provision of employment sites and better connectivity between existing sites will work to support a green economy. Sustainable materials could be used during construction, improving resource efficiency and supporting a circular economy. There is also an opportunity to redevelop brownfield land, bringing it back into use, depending on the location of infrastructure. Improved sustainable transport infrastructure could reduce reliance on private cars, reducing resource use. As the location of infrastructure and details of materials to be used are not known, this has been scored as a significant positive uncertain effect. There is potential to lose some of the region's best and most versatile land through land take associated with construction of new transport infrastructure, depending on its location. This can be mitigated through appropriate routing of new transport routes to avoid loss of best and most versatile agricultural land. Although the location of infrastructure and details of materials to be used are not known, this has been scored as a potential significant negative effect. As the proposed alternative will also likely include works on existing infrastructure in uncertain locations, the effects outlined above are also applicable. However, without implementation of the TS policies, use of sustainable materials and improving resource efficiency may not be incorporated as effectively, diminishing the positive effects of the reasonable alternative in comparison to the Policy.
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Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a substantial number of objectives identifying uncertainties associated with Policy 1. Uncertainties associated with Policy 1 are primarily around the unknown location and magnitude of new infrastructure and the updates and works to existing infrastructure to improve connections.

Significant positive effects have been identified for the following SEA objectives: population and equalities, economy and employment, and material assets. These significant positive effects are largely due to the implementation of sustainable transport measures to adequately support new housing developments and employment sites, which may subsequently lead to a cleaner transport network and improvements to the scale and scope of the public transport, improving air quality, connectivity and accessibility in the KL&WN area.

Significant negative effects have been identified for the following SEA objectives: air quality and material assets. Significant negative effects were identified due to the potential impacts of new infrastructure on air quality and the potential to lose the region's best and most versatile land.

The reasonable alternative is likely to include new infrastructure and works on existing infrastructure in uncertain effects, and thus the effects outlined above are also applicable. However, without the TS' Objectives and Policies, use of sustainable materials, and a move towards more sustainable transport infrastructure is likely to be less effective and positive effects will be reduced in comparison to implementation of the Policy.

Policy 2: Strategic Connections

Description: Norfolk County Council, working in partnership, seek to improve strategic connections between King's Lynn, the port, the surrounding villages, Norwich, Norfolk and the wider region. We will seek improvements to strategic connections including the A47, A149 and key roundabouts like the A17/A47 Pullover junction, the town centre gyratory as well as rail and bus connections.

Alternatives:

- To not actively seek to improve strategic connections – This is not considered a reasonable alternative and has therefore not been assessed under the SEA Framework.
- To do nothing and continue with a business as usual approach, with no purposeful improvements to strategic connections – This is considered a reasonable alternative and has been assessed under the SEA Framework.

Implementation of Policy 2 would likely require construction of upgrades to existing infrastructure, to improve strategic connections across KL&WN.

Table D-2 - Assessment of the effects of Transport Strategy Policy 2 and its Reasonable Alternatives

SEA Objective	Policy	Alternati ves	Description of effects
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Population & Equalities	++/-	0	KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. Improvements to strategic connections may improve access across the KL&WN area, including in rural areas, which will enhance access to local facilities and town centres. It is also anticipated that developments to existing and new routes may improve conditions for people with mobility aids, improving the accessibility of routes. Depending on the location, improvements to strategic connections may also lead to improvements in rail and bus connections which will greatly benefit those that rely on public transport for work and leisure, improve connectivity and reduce inequalities in access between communities across the county. The development of improved bus and rail services will also contribute to improving the network for future generations will also aid in improving the network's resilience to increasing populations Implementation of Policy 2 would likely require construction associated with upgrades to existing infrastructure, to improve strategic connections across KL&WN. During construction, there may be temporary severance or restricted access along the A138, which may restrict to access to local services, with congestion and delays likely, which may have a minor negative effect for populations and equalities. Overall, a mixed effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage
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SEA Objective	Policy	Alternatives	Description of effects
			alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. These road schemes are likely to lead to improvements to strategic connections in areas surrounding KL&WN, likely improving accessibility and connectivity to KL&WN, and as such a minor positive effect has been identified.
Human Health	0	0	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. It is not anticipated that Policy 2 will have any discernible positive or negative effects on human health, and therefore a neutral score has been identified. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. Similarly to the TS, the reasonable alternative is unlikely to have any discernible positive or negative effects on human health with or without improvement to strategic connections.

SEA Objective	Policy	Alternatives	Description of effects
Economy & Employment			KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Exact measures to improve strategic connections are currently unknown. It is assumed that the improvements will lead to less congestion, which may result in improved travel times and encourage residents and visitors to these areas, boosting local economies. Overall, a minor positive effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. These road schemes are likely to lead to improvements to strategic connections in areas surrounding KL&WN, likely improving accessibility to the town centre and employment sites within KL&WN. Therefore, a minor positive effect has been identified, although it is likely to be realised at a lesser scale than with Policy 2.

Community Safety			On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. Through the town centre, vehicles are guided through a one-way gyratory system which can form a barrier for local walking and cycling trips, especially between the rail and bus stations. Significant positive effects are anticipated for community safety as a result of improvements to strategic connections and improvements to the town centre gyratory. This is likely to reduce both collision and the number of KSI on roads in the area, encourage walking and cycling. Although the exact location and scale of improvements are currently unknown, it is anticipated that implementation of this policy would have a significant positive effect against this SEA Objective based on the assumption that it is likely that community safety will be embedded into design. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits to community safety.
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Biodiversity & Natural Capital	+/-	0	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. There is potential for negative effects on biodiversity as a result of any works that will take place to improve strategic connections. This may result in temporary increases in disturbance to local habitats during construction as a result of noise, vibration and reduced air quality. Furthermore, during operation of improved transport infrastructure, increased emissions, noise pollution, dust and other associated pollution could result in disturbance to local habitats. Due to the anticipated scale of the option, it is concluded that there is a significant negative effect on this SEA Objective. However, there are potential for positive effects to arise as a result of reducing congestion, therefore improving air quality and reducing disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. A minor positive effect is likely from schemes that deliver new infrastructure of sufficient scale will be required to deliver Biodiversity Net Gain (BNG) under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. Overall, a mixed significant effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is
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SEA Objective	Policy	Alternatives	Description of effects
			unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits to biodiversity and natural capital.

Landscape, Seascape & Townscape	+	0	There is one designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Depending on location, works on the A149 and improved connections between King's Lynn and neighbouring towns and villages and the wider Norfolk area and beyond could impact the National Landscape through impacts to visual amenity and restricted access during construction. This could result in negative effects on this SEA Objective. Construction works in or around the National Landscape could lead to increased air, noise, and light pollution, leading to negative effects on its setting. As implementation of Policy 2 is not expected to require new infrastructure, and construction effects are likely to be mitigated through best practice methods such as implementation of a CEMP and STMP, a minor negative effect has been concluded against this SEA Objective. However, upgraded transport infrastructure could improve access to the countryside and National Landscape, promoting sustainable tourism, resulting in a minor positive effect against this SEA Objective. New developments and infrastructure also provide opportunities to incorporate green infrastructure into design and improve the sustainability of transport, reducing pollution around the National Landscape. Although the degree to which green infrastructure will be incorporated is not known, therefore minor positive effects are concluded against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement
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SEA Objective	Policy	Alternatives	Description of effects
			schemes identified along the A47. This is unlikely to result in subsequent benefits to Landscape, Seascape and Townscape.

Historic Environment	+	0	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Improvement of existing transport infrastructure brings opportunity to enhance the setting of heritage assets through development of schemes that can reduce traffic and noise and enhance accessibility around heritage assets. This could result in a minor positive effect on this SEA Objective, though as the location and detail of infrastructure is unknown, this is scored as uncertain. Construction associated with improvements to existing infrastructure may have negative impacts on designated historic assets, through potential damage, restricted access, impacts on visual amenity and noise and air pollution. It is assumed that any proposed works will not involve excavations beyond ground level and construction impacts are expected to be temporary and likely mitigated through best use construction practice including implementation of a CTMP and CEMP. As the impacts of construction works on heritage assets are likely mitigable, it has been concluded that there would be a minor positive effect against this SEA Objective for Policy 2. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits to the Historic Environment.
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Water Environment	+/-	0	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Improvements to existing transport infrastructure bring opportunity to incorporate green infrastructure, including SuDS, into design. This could result in a positive effect on this SEA Objective through improved drainage, reducing discharge from roads and surface water flooding. Although the location and detail of infrastructure is unknown, including design, this is scored as a minor positive effect. New infrastructure could result in additional concrete or other impermeable surface area within KL&WN. However, it is assumed that appropriate mitigation in line with other policy, including national policy, would be incorporated into design of infrastructure, that would prevent increased surface runoff and subsequently increased surface water flood risk. This could lead to negative effects through increased flood risk, particularly as the area is susceptible to flooding with 810 properties at risk of surface water flooding. Construction works could lead to pollution of the water environment including aquifers, rivers and streams, through noise, dust, and surface runoff entering waterbodies leading to a reduction in quality. These effects are mitigable through best practice construction measures, but there is concluded to be a residual minor effect due to the remaining potential for pollution. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the
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SEA Objective	Policy	Alternatives	Description of effects
			East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits through incorporation of green infrastructure and SuDS.

Air Quality	+/-	0	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. Improved strategic connections between key areas could improve the flow of traffic, reducing congestion, and improving air quality through a reduction in air pollution due to more efficient driving. This could have a minor positive effect against this SEA Objective, as improvements are expected to benefit the Study Area and beyond and could lead to a reduction in congestion and associated emissions. Implementation of the Policy could lead to temporary reductions in air quality during construction, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. This could lead to negative effects on air quality. Due to this, minor negative effects have been assessed against this SEA Objective. Reductions in air quality, during construction or operation, that occur in or near an AQMA could lead to significant negative effects on this SEA Objective. However, potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits to air quality.
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Climate Change & Greenhouse Gases	+	+/-	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. KL&WN is also susceptible to the impacts of a changing climate, through sea level rise and coastal erosion due to its coastal setting, as well as increased extreme weather events and temperature change. A large area of the borough is expected to be at increased flood risk and sea level rise by 2030. Improvements to transport infrastructure could provide opportunities to increase the number of EV charging stations and promote low carbon and energy efficient design. This would support the council's net zero ambitions. More EVs and more sustainable design in use could result in lower greenhouse gas emissions, leading to a positive effect on this SEA Objective. Depending on the materials used, there is also an opportunity to reduce embodied carbon during construction. Although details on materials are not known, this has been scored as a minor positive effect. Improved infrastructure could improve the flow of traffic, reducing congestion, and therefore lead to a reduction in greenhouse gas emissions due to more efficient driving. This is anticipated to have a minor positive effect against this SEA Objective. Improved infrastructure also brings opportunity to implement green infrastructure & SuDS. This will help to further increase climate change resilience through increasing resilience to flooding, as well as CO₂ drawdown, though the extent of this is dependent on the extent and type of vegetation used. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The Borough has an Air Quality Action Plan in place, outlining measures to be taken regarding EV charging infrastructure. Due to this, it is likely that the alternative would also result in positive
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SEA Objective	Policy	Alternatives	Description of effects
			effects against this SEA Objective, and negative effects due to construction, though the magnitude of this is uncertain.
Noise	+/-	0	There are a number of Noise Important Areas (NIAs) within the KL&WN borough, concentrated in and around town centres and along major roads. Improvements to strategic transport infrastructure will lead to opportunities for implementation of more sustainable design, which could help to reduce noise and congestion. If planned and located appropriately, this could reduce traffic and rail derived noise in NIAs, resulting in positive effects. As the exact location and scale of transport measures are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective. Construction associated with upgraded infrastructure will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects. Construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP. Overall, a residual minor negative effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits on noise.

SEA Objective	Policy	Alternatives	Description of effects
Material Assets	+/-/?	0	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. There are a number of opportunities provided by improving existing strategic transport infrastructure that could result in positive effects against this SEA Objective. Supporting provision of employment sites and better connectivity between existing sites will work to support a green economy. Sustainable materials could be used during construction, improving resource efficiency and supporting a circular economy. Improved sustainable transport infrastructure could reduce reliance on private cars, reducing resource use. However, construction works are likely to produce waste associated with new materials and old infrastructure. As the location of infrastructure and details of materials to be used are not known, this has been scored as a minor positive, and minor negative uncertain effect. The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. The reasonable alternative is unlikely to result in major improvements to strategic connections, or encourage alternative travel modes such as active travel, or improved bus and rail services within KL&WN. However, the Government's Road Investment Strategy identified the East of England as an area in need of investment, with six road improvement schemes identified along the A47. This is unlikely to result in subsequent benefits on materials and resource use.



Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a number of objectives identifying uncertainties associated with Policy 2. Uncertainties associated with Policy 2 are primarily around the unknown location and magnitude of the improvements to strategic connections and any infrastructure works required.

Significant positive effects have been identified for the following SEA objectives: population and equalities and community safety. These significant positive effects are largely due to the increased resilience of the transport network for future generations and improved feelings of community safety.

Significant negative effects have been identified for the following SEA objectives: biodiversity and natural capital. Significant negative effects were identified due to the potential impacts related to the construction of new infrastructure.

The proposed reasonable alternative to this policy would be business as usual, with no purposeful improvements to strategic connections. This would result in no construction related to transport infrastructure, and no subsequent effects on the majority of SEA objectives.

Policy 3: Parking

Description: Norfolk County Council will work with the BCKL&WN to deliver the Parking Strategy that balances the needs of the town with supporting the promotion of public transport and active travel. We will seek improvements that acknowledge the importance of the NCC Electric Vehicles Strategy with regards to EV parking provision.

Alternatives:

- To focus only on public transport/active travel – This is considered a reasonable alternative and has been assessed under the SEA Framework.
- To focus only on private vehicles – This is considered a reasonable alternative and has been assessed under the SEA Framework.

Implementation of Policy 3 aims to work in partnership with BCKL&WN to deliver a parking strategy that meets the needs of the town whilst supporting the promotion of public transport and active travel. To meet parking needs, it is possible that construction may take place. However, the scale and scope of this is currently unknown.

Table D-3 – Assessment of the effects of Transport Strategy Policy 3 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
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Population & Equalities	+/-	+/-	KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. A car parking policy that balances the needs of residents and visitors may improve connectivity by encouraging those who would otherwise be prevented from travelling into town for concern of not being able to park. This will improve connectivity, particularly for those who are disabled or not located in close proximity to the public transport network. Additionally, improved EV charging infrastructure and parking provision could improve accessibility in regard to EVs. Furthermore, policy 3 is likely to support future population growth by ensuring that the needs of existing and future businesses and residents within the borough, as well as visitors and commuters to the town, will be met. However, there are uncertainties associated with Policy 3 that are primarily around the unknown location and magnitude of new infrastructure and the updates and works to existing infrastructure to deliver the parking strategy and meet parking needs. As such, minor negative effects have been identified as a result of potential construction works to create new parking facilities. During construction there may be temporary severance or restricted access to local services, with congestion and delays likely. Overall, a minor mixed effect has been assessed against this SEA Objective. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor
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SEA Objective	Policy	Alternatives	Description of effects
			positive effects on population and qualities by promoting active or sustainable travel which is likely to improve accessibility. Minor negative effects are also anticipated associated with construction. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having potential minor positive effects on population & equalities, as above, though to a lesser extent. Minor negative effects have also been identified for this alternative, due to encouragement of private vehicle use and impacts of potential construction works, without balancing the needs of active and sustainable travel modes. People often use multiple modes of travel throughout the week, and some residents may only be able to access one mode of transport, such as private vehicles if they are not located nearby the public transport network. As such, the reasonable alternatives may unintentionally exclude certain groups or reinforce existing inequalities. However, the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Human Health	+/-	+/-	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. Minor positive effects have been identified as by providing adequate parking facilities, it may improve access to health services across the KL&WN area, which will be beneficial to human health. The promotion of new sustainable transport measures and active travel routes across the King's Lynn area will encourage residents and visitors to take part in walking and cycling, improving physical activity rates and therefore physical and mental health. Improvements to the public transport and active transport network may also aid in preventing social isolation in rural and urban areas, although the exact location and scale of transport measures are currently unknown. However, minor negative effects have been identified as new parking infrastructure will likely require construction or updates and works to existing infrastructure, which may lead to temporary reductions in air quality due to dust and construction traffic as well as severance affecting facilities and services. Potential negative effects on air quality should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Overall, mixed minor effects have been assessed against this SEA Objective.
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SEA Objective	Policy	Alternatives	Description of effects
			Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on human health through a reduction in emissions and improvements in air quality. Minor negative effects are also anticipated associated with construction. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having potential minor positive effects on human health through a reduction in emissions and improvements in air quality. Minor negative effects have been identified for this alternative, due to encouragement of private vehicle use and impacts of potential construction works, which could temporarily cause negative impacts on human health. However, the exact scale and scope of this would be uncertain. Overall, minor mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Economy & Employment			KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. A car parking policy that balances the needs of residents and visitors may improve connectivity by encouraging those who would otherwise be prevented from travelling into town for concern of not being able to park. This will improve connectivity, particularly for those who are disabled or not located in close proximity to the public transport network and need to travel for work. This will subsequently support local economies by encouraging residents, visitors, and tourists to travel across the KL&WN area, having a significant positive effect on employment and economy. However, minor negative effects have been identified as a result of potential construction works to create new parking facilities. During construction there may be temporary severance or restricted access to local services, with congestion and delays likely. Overall, however, a significant positive effect has been assessed against this SEA Objective. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on economy and employment due to increased accessibility and connectivity to town centres, boosting local economies and encouraging residents, tourists, and visitors to travel across KL&WN. Minor negative effects are also anticipated associated with construction and improvement works across the travel network which may lead to temporary severance or restricted access to services.
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SEA Objective	Policy	Alternatives	Description of effects
			The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having potential minor positive effects on economy and employment due to increased accessibility and connectivity to town centres, boosting local economies and encouraging residents, tourists, and visitors to travel across KL&WN. However, minor negative effects have been identified as a result of potential construction and improvement works across the travel network which may lead to temporary severance or restricted access to services although the exact scale and scope of this is uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Community Safety	+	+/-	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. Providing designated and well-maintained parking areas may contribute to community safety by reducing the number of vehicles parked on streets and subsequently improving visibility for both pedestrians and drivers, decreasing the likelihood of accidents. Additionally, the provision of adequate parking spaces may make town centres more accessible, increasing foot traffic, and making areas feel safer. Overall, a minor positive effect has been assessed against this SEA Objective. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on community safety as promotion of active travel and public transport may lead to less traffic on the roads, making roads safer for all road users. Minor negative effects are also anticipated due to encouraging private vehicle usage and the potential construction works which could impact community safety. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has been identified as having potential minor negative effects due to encouragement of private vehicle use and the potential construction works which could impact community safety. However, the exact scale and scope of this would be uncertain.
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SEA Objective	Policy	Alternatives	Description of effects
			Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Biodiversity & Natural Capital	+/-	+/-	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. Creation of new parking facilities may require land take which may result in permanent loss of biodiversity and natural capital. However, the scale and nature of this is likely to be determined by individual scheme design and location and it is assumed that, in line with national and local planning policy, any proposals would seek to avoid and minimise biodiversity impacts and provide enhancements where possible. The provision of adequate parking spaces may also encourage private vehicle usage, which may lead to an increase in noise and air pollution, which is likely to disturb local habitats and animal behaviour. Furthermore, there is potential for negative effects on biodiversity as a result of the promotion of the active travel network which may cause disturbance to local habitats as a result of noise, vibration and potential littering. The UK Government has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. However, a minor positive effect has been identified due to the promotion of EVs which may lead to improvements in air quality by reducing NO2 emissions, improvements in noise quality, reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. Overall, a mixed effect has been assessed against this SEA Objective.
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SEA Objective	Policy	Alternatives	Description of effects
			Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on biodiversity and natural capital by improving air quality, noise quality, and reducing congestion. Negative effects are also anticipated associated with construction. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has been identified as having significant negative effects due to encouragement of private vehicle use and potential construction works which would decrease air quality, noise quality, and likely lead to congestion. However, the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Landscape, Seascape & Townscape	+/-	+/-	There is 1 designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Creation of new parking facilities may require land take, resulting in permanent loss of land, which could include land within the Norfolk Coast National Landscape. The scale and nature of land take is likely to be determined by individual scheme design and location, and it is assumed that any proposals would seek to avoid and minimise impacts to the National Landscape. Due to this, minor negative effects are assessed against this SEA Objective. The provision of adequate parking spaces may also encourage private vehicle usage, which may lead to an increase in noise and air pollution, negatively affecting the setting of seascape, landscape and townscape, including the Norfolk Coast National Landscape. However, a minor positive effect has been identified due to the promotion of EVs and active travel, and opportunities to incorporate green infrastructure into designs, which may lead to improvements in air quality and noise quality as well as improving the quality and condition of areas and reducing traffic disturbance. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on landscape and townscape by promoting active or sustainable travel. Negative effects are also anticipated associated with construction. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having minor positive effects, however minor negative effects have also
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SEA Objective	Policy	Alternatives	Description of effects
			been identified due to encouraging private vehicle usage and the potential construction works, without balancing needs of active and sustainable travel modes, although the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Historic Environment	+/-	+/-	The KL&WN area contains numerous designated and non-designated historic and cultural assets, including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Development of new parking infrastructure brings opportunity to incorporate high quality design in the public realm and enhance the setting of heritage assets through development of schemes that can reduce traffic and noise and enhance accessibility around heritage assets. This could result in a minor positive effect on this SEA Objective, although the location and detail of infrastructure is unknown. Construction associated with new parking infrastructure may have negative impacts on designated historic assets, through potential damage, restricted access, impacts on visual amenity and noise and air pollution. Though some of these impacts may be temporary, there is potential for permanent negative impacts on heritage assets. Excavation associated with construction may also impact non-designated and unknown heritage assets, which could be of high value. Areas such as the Norfolk Coast National Landscape are rich in archaeological and historical sites, including assets of internationally recognised value. Much of this may be yet undiscovered and could be damaged during construction of transport infrastructure. However, it is assumed that appropriate mitigation measures would be employed, in line with relevant policy, to prevent damage to heritage assets. As construction works may impact heritage assets, it has been concluded that there would be a minor negative uncertain effect against this SEA Objective for Policy 3. The proposed reasonable alternatives would aim to look at either public transport and active travel or focus solely on private cars, taking an individual approach rather
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SEA Objective	Policy	Alternatives	Description of effects
			than holistic, there would still be promotion of sustainable and active travel as part of both alternative options, though it would not be the focus. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on the historic environment if high-quality design is incorporate which may improve the setting of heritage assets. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having minor positive effects, however minor negative effects have also been identified due to encouraging private vehicle usage and the potential construction works, which could negatively impact heritage assets and the historic environment, although the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Water Environment	+/-	+/-	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. New parking infrastructure could result in additional concrete or other impermeable surface area within KL&WN. However, we would assume that appropriate mitigation in line with other policy, including national policy, would be incorporated into design of infrastructure, that would prevent increased surface runoff and subsequently increased surface water flood risk. This could lead to negative effects through increased flood risk, particularly as the area is susceptible to flooding with 810 properties at risk of surface water flooding. Development of new parking infrastructure brings opportunity to incorporate green infrastructure, including SuDS, into design. This could result in a positive effect on this SEA Objective through improved drainage, reducing discharge from roads and surface water flooding. Although the location and detail of infrastructure is unknown, including design, this is scored as a minor positive effect. Construction works could lead to pollution of the water environment including aquifers, rivers and streams, through noise, dust, and surface runoff entering waterbodies leading to a reduction in quality. These effects are mitigable through best practice construction measures, but there is concluded to be a residual minor negative effect due to the remaining potential for pollution. During operation of new parking infrastructure, localised increased emissions, noise pollution, dust and other associated pollution could result in a reduction in water quality depending on location. It is concluded that there is a minor negative effect on this SEA Objective, as it is expected that this will be mitigated by best practice measures.
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SEA Objective	Policy	Alternatives	Description of effects
			Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on the water environment through potential incorporation of green infrastructure and reduction in flood risk. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having minor positive effects, however significant negative effects have also been identified due to encouraging private vehicle usage and the potential construction works which could impact the water environment. However, the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Air Quality	+/-	+/--	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. Promotion of active travel, public transport and improvements to EV charging infrastructure will lead to an improvement in air quality if effective. If this leads to improvements in air quality and reduction in NO₂ emissions within AQMAs, then effects can be significant. Implementation of Policy 3 could also lead to a reduction in congestion through increased use of sustainable transport and active travel, improving air quality through a reduction in air pollution due to more efficient driving. If this impacts congestion hot spots, then effects could be significant. However, the exact location and scale of transport measures are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective The provision of adequate parking spaces may encourage private vehicle usage, which may lead to an increase in air pollution. Implementation of the Policy could also lead to temporary reductions in air quality during construction, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. This could lead to negative effects on air quality. Reductions in air quality, during construction or operation, that occur in or near an AQMA could lead to significant negative effects on this SEA Objective. However, potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Due to this, a minor negative effect has been assessed against this SEA Objective.
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SEA Objective	Policy	Alternatives	Description of effects
			Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on air quality through a reduction in emissions and improvements in air quality. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having minor positive effects, however significant negative effects have also been identified due to encouraging private vehicle usage and the potential construction works which could temporarily impact air quality. However, the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Climate Change & Greenhouse Gases	+/-	+/-	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. Construction of new parking infrastructure could provide opportunities to promote low carbon and energy efficient design. This would support the council's net zero ambitions. Greater use of sustainable design could result in lower greenhouse gas emissions and a positive effect on this SEA Objective. Depending on the materials used, there is also an opportunity to reduce embodied carbon during construction. Although details on materials are not known, this has been scored as a minor positive effect. If promotion of active travel and public transport is effective it could lead to reduced congestion and improving air quality through a reduction in greenhouse gas emissions due to more efficient driving and lower use of private vehicles. This is anticipated to have a minor positive effect against this SEA Objective. Construction of new parking infrastructure also provides opportunity to implement green infrastructure & SuDS. This will help to further increase climate change resilience through increasing resilience to flooding, as well as CO₂ drawdown, though the extent of this is dependent on the extent and type of vegetation used. Construction of parking infrastructure would result in minor negative effects against this SEA Objective associated due to increased vehicle emissions during construction and embodied carbon of materials. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on climate change through a reduction in greenhouse gas emissions and improvements in design.
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SEA Objective	Policy	Alternatives	Description of effects
			The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having minor positive effects, however significant negative effects have also been identified due to encouraging private vehicle usage and the potential construction works which could impact greenhouse gas emissions and resilience to climate change. Though the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Noise	+/-	+/-	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. If promotion of active travel and public transport is effective it could lead to reduced noise pollution through a reduction in use of private vehicles and congestion. This could reduce traffic noise in NIAs, resulting in significant positive effects. As the extent of noise reduction is not known, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective Construction associated with new parking infrastructure will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects. Construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP. Overall, this has been assessed as a minor negative effect against this SEA Objective. The provision of adequate parking spaces may however, also encourage private vehicle usage, which may lead to an increase in noise pollution. New parking infrastructure in previously quiet locations could lead to increased noise where noise levels were previously low. If increased noise levels are near to or within sensitive receptors, or lead to designation of new Noise Important Areas, effects may be significant. We assume that appropriate mitigation will be applied in line with relevant policy, including national policy regarding noise, therefore a residual minor negative effect has been assessed against this SEA Objective. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on noise through a reduction in congestion and traffic related noise. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been
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SEA Objective	Policy	Alternatives	Description of effects
			identified as having minor positive effects, however significant negative effects have also been identified due to encouraging private vehicle usage and the potential construction works which could impact noise levels and Noise Important Areas and other sensitive receptors. However, the exact scale and scope of this would be uncertain. Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Material Assets	++/--	+/--/?	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. There are a number of opportunities provided by implementation of Policy 3 that could result in positive effects against this SEA Objective. Construction of new parking infrastructure could encourage use of sustainable materials during construction and the reuse of existing infrastructure and brownfield land, improving resource efficiency and supporting a circular economy. Although the location of infrastructure and details of materials to be used are not known, this has been scored as a significant positive uncertain effect, due to the opportunity to utilise brownfield land. Creation of new parking facilities may require land take, resulting in permanent loss of land, which could include best and most versatile agricultural land. The scale and nature of land take is likely to be determined by individual scheme design and location, and it is assumed that any proposals would seek to avoid and minimise this, though as the location of works is unknown there is a residual significant negative effect. Two alternatives have been identified for Policy 3, the first of which is to focus only on public transport/active travel. This has been identified as having potential minor positive effects on material assets due to the opportunities provided to utilise sustainable materials and utilise existing infrastructure and brownfield land. The second alternative proposes a focus on private vehicles, though would still promote sustainable and active travel to a lesser extent. This has also been identified as having minor positive effects, however significant negative effects have also been identified due to the potential for loss of best and most versatile agricultural land in construction of parking facilities. However, the exact scale and scope of this would be uncertain.
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SEA Objective	Policy	Alternatives	Description of effects
			Overall, mixed effects have been identified, and the positive effects of the reasonable alternatives are likely to be lesser than that of the policy, due to a reduced focus on sustainable transport and active travel.

Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a number of objectives identifying uncertainties associated with Policy 3. Uncertainties associated with Policy 3 are primarily around the unknown location and magnitude of new infrastructure and the updates and works to existing infrastructure to deliver the parking strategy and meet parking needs.

Significant positive effects have been identified for the following SEA objectives: Economy and Employment and Material Assets. These significant positive effects are largely due to the positive outcomes seen from improving transport infrastructure and connectivity, as well as the opportunities provided to incorporate sustainable design and promote use of active travel and public transport.

Significant negative effects have been identified for the following SEA Objectives: Biodiversity and Natural Capital, Water Environment, and Material Assets. These significant negative effects are largely due to the impacts of construction of new infrastructure and associated pollution and land take, as well as encouragement of the use of private vehicles and potential increased pollution.

The proposed reasonable alternative was identified as having mixed effects for the majority of the SEA objectives. This is primarily related to the reasonable alternative focusing on individual matters instead of taking a holistic approach, which may unintentionally exclude certain groups or reinforce existing inequalities. Significant negative effects were identified for Biodiversity & Natural Capital, Water Environment, Air Quality, Climate Change & Greenhouse Gases, and Material Assets due to the reasons outlined above.



Policy 4: Bus Services

Description: Norfolk County Council will support bus operators to deliver quicker, reliable, integrated, convenient and accessible journeys.

Alternatives:

- To do nothing and continue with a business as usual approach, with no involvement from NCC in bus services – This is considered a reasonable alternative and has been assessed under the SEA Framework.

Implementation of Policy 4 will support bus operators to deliver quicker, reliable, integrated, convenient and accessible journeys. This is not expected to require construction of new infrastructure, however there will likely be changes to bus routes and timetables.

Table D-4 – Assessment of the effects of Transport Strategy Policy 4 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
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Population & Equalities			KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. Bus services in King's Lynn are focused on the bus station located in the town centre, with pedestrian and cycle links between the bus and railway station. At present, bus services suffer reliability issues due to the one-way gyratory system in the town centre which is often congested. The Bus Improvement Plan (BSIP) aims to increase patronage and accessibility in rural areas and provides funding to NCC to improve services. ++ + Improvements to bus services will improve connectivity for those who rely on public transport for work, and improve the bus network for future generations, supporting population growth. Alongside improving the scale and scope of public transport, connectivity may also improve across the area, including in rural areas, which will enhance access to local facilities and town centres, reducing overall inequality. It is also anticipated that developments to existing and new routes may improve conditions for people with mobility aids, or adapted bicycles, improving the accessibility of routes. Overall, a significant positive effect has been identified, however, the exact measures to deliver improvements to the bus network are currently unknown. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and
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SEA Objective	Policy	Alternatives	Description of effects
			associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to positive effects, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a minor positive effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Human Health	+	0	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. Supporting bus operators to deliver quicker, more reliable and accessible journeys may encourage the use of public transport, which could see a shift away from private vehicle usage. This may lead to improvements in air quality and noise quality, reduce congestion, and lead to positive benefits to human health. Although the exact extent of improvements are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area but is not likely to have any effects on human health.

SEA Objective	Policy	Alternatives	Description of effects
Economy & Employment	++	+	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Increasing the frequency of bus services may contribute to improved public transport reliability, resulting in more reliable journey times, improving access to employment and training opportunities in both urban and rural areas. Additionally, delivering more integrated and accessible services may lead to more residents, visitors, and tourists visiting town centres, boosting local economies. Although the exact extent of improvements are currently unknown, it is anticipated that implementation of this policy would have a significant positive effect against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to positive effects on the economy and employment, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a minor positive effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Community Safety	+	+	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. Increasing the frequency, reliability, and accessibility of bus services may result in more reliable journey times and improved feelings of safety. Additionally, measures such as improving bus stop facilities may contribute to feelings of safety, particularly during night time hours. Although the exact extent of improvements are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to positive effects on community safety, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a minor positive effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Biodiversity & Natural Capital	++	+	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. Supporting bus operators to deliver quicker, more reliable and accessible journeys may encourage the use of public transport, which could see a shift away from private vehicle usage. This may lead to improvements in air quality and noise quality, reduce congestion, reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to contribute to positive effects somewhat. Overall, a significant positive effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to positive effects on biodiversity and natural capital as it encourages the use of public transport and shift away from private vehicle usage, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a minor positive effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Landscape, Seascape & Townscape	+/-	+/-	There is one designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Improved bus services may increase ease of accessibility, and promote sustainable transport to, the countryside and Norfolk Coast National Landscape. This could lead to minor positive effects. If the amount of bus services in or around the Norfolk Coast National Landscape increase, or significant new routes affecting the National Landscape are introduced, there may be negative effects. If these potential bus services negatively impact the setting of the National Landscape through pollution or impacts on visual amenity, then negative effects are likely to be minor. Overall, minor mixed effects have been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to both positive and negative effects on landscape, seascape and townscape for the reasons outlined above, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a mixed effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Historic Environment	+/-	+/-	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Improved bus services may increase ease of accessibility, support tourism, and promote sustainable transport to, heritage assets. This would lead to minor positive effects through increased visitor expenditure. If the amount of bus services in and around designated or undesignated heritage assets, or significant new routes affecting these assets are introduced, there may be negative effects. If these potential bus services negatively impact the setting of heritage assets through pollution or impacts on visual amenity, then negative effects are likely to be minor. Overall, minor mixed effects have been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to both positive and negative effects on the historic environment for the reasons outlined above, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a mixed effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Water Environment	+	+	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Improved bus services may lead to a reduction in the use of private ICE vehicles, and reduction in air pollution. Reduction in air pollution could have minor indirect positive effects on the water environment through an improvement in general quality. A reduction in emissions, could also work to reduce the impacts of climate change through a lower contribution to the greenhouse effect, this could work to lower the risk of climate change associated flooding. Overall, it is assessed that there would be a minor positive effect against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to positive effects on the water environment as it encourages the use of public transport and shift away from private vehicle usage, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a minor positive effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Air Quality	+/-	+/-	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. Improvements to bus services could lead to a reduction in congestion, and subsequently emissions, as well as promote the use of sustainable transport across the KL&WN area. If congestion reduction and air quality improvements are realised in AQMAs or congestion hotspots, significant positive effects may be realised. However, the location and magnitude are not known, minor positive effects are assessed against this SEA Objective. Significant effects may be realised through appropriate implementation and monitoring. If additional buses are put in place, or new routes running near sensitive receptors, negative effects could be seen due to increased emissions, if low carbon vehicles are not utilised. As details of emissions are not known, a minor negative effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to both positive and negative effects on air quality for the reasons outlined above, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a mixed effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Climate Change & Greenhouse Gases	+/-	+/-	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. Supporting bus operators to improve services could provide an opportunity to reduce embodied carbon and support low carbon transport as part of the council's net zero ambitions, if new, low carbon, buses are utilised. However, increased journeys and new routes without utilising low carbon transport technologies would lead to negative effects on this SEA Objective through increased emissions, although this could be offset by the reduce number of private vehicles in use. As details on vehicle type and movements are not known, minor mixed effects have been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to both positive and negative effects on climate change & greenhouse gases for the reasons outlined above, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a mixed effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Noise	+/-	+/-	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. Improvements to bus services could lead to a reduction in congestion and promote the use of sustainable transport across the KL&WN area, which could lead to a reduction in noise pollution. If congestion and subsequent noise reduction take place in NIAs, positive effects may be realised. As the location and magnitude is not known, minor positive uncertain effects are assessed against this SEA Objective. If additional buses are put in place, or new routes running near sensitive receptors, negative effects could be seen due to noise in previously tranquil areas. As details of routes and noise are not known, a minor negative uncertain effect has been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. This is likely to lead to both positive and negative effects on noise for the reasons outlined above, however, without the involvement of NCC, the positive effects are likely to be realised at a lesser scale. As such, a mixed effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Material Assets	+/-	0	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. Additional bus services and new routes could lead to an increase in resource use, through fuel consumption. However, if low carbon vehicles are used there are opportunities to increase resource efficiency through utilisation of sustainable fuels and energy. Although details on fuel use and energy consumption are not known, minor mixed effects have been assessed against this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. Government funding through the Bus Service Improvement Plan (BSIP) will likely lead to changes to bus services and associated infrastructure, with aims to provide quicker and more reliable bus journeys in the area. It is not known if low-carbon vehicles would be utilised, and therefore a neutral score for material assets has been identified.

Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a number of objectives identifying uncertainties associated with Policy 4. Uncertainties associated with Policy 4 are primarily around the unknown location and magnitude of the improvements to bus services and any infrastructure works required.

Significant positive effects have been identified for the following SEA objectives: population and equalities, economy and employment, and biodiversity and natural capital. These significant positive effects are largely to the delivery of quicker, more reliable and accessible journeys that may encourage the use of public transport and lead to improvements in air quality and noise quality, reduced congestion, and reduced traffic disturbance to biodiversity.



No significant negative effects against any of the SEA objectives. have been identified for this policy.

The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in bus services. This would likely result in no changes to bus services and associated infrastructure, and no subsequent effects for all of the objectives.

Policy 5: Rail

Description: Norfolk County Council will work with stakeholders to make improvements to King's Lynn Railway Station as set out in the Norfolk Rail Prospectus. We will seek improvements to the line for both the passengers and freight. This will include aiming to make them more reliable, accessible, integrated and provide faster more frequent journeys.

Alternatives:

- To do nothing and continue with a business as usual approach, with no involvement from NCC in rail services – This is considered a reasonable alternative and has been assessed under the SEA Framework.

Implementation of Policy 5 will support rail operators to deliver quicker, reliable, integrated, convenient and accessible journeys. This is not expected to require construction of new infrastructure, however there will likely be changes to timetables.

Table D-5 – Assessment of the effects of Transport Strategy Policy 5 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
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Population & Equalities	++	0	King's Lynn and West Norfolk (KL&WN) has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. King's Lynn Railway Station provides rail connections for King's Lynn and the surrounding area, with alternative stations placed approximately 7 miles and 14 miles away. There has been a steady increase in patronage since the lows during COVID-19, although passenger numbers have not recovered to the same levels of 2019 and early 2020. Alongside improving the railway network, connectivity is also likely to improve across the area which will enhance access to local facilities and town centres. It is also anticipated that improvements to rail services may improve conditions for people with mobility aids, or adapted bicycles, improving the accessibility of routes. Improvements to rail services will improve connectivity for those who rely on public transport for work, and improve the railway network for future generations, supporting population growth. Overall, a significant positive effect has been identified, however, the exact measures to deliver improvements to the rail network is currently unknown. The reasonable alternative approach of 'business as usual' is unlikely to achieve the same benefits without the involvement of NCC and engagement with rail operators. There are currently no planned upgrades or improvements to King's Lynn Railway station. As such, a neutral effect has been identified.
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SEA Objective	Policy	Alternatives	Description of effects
Human Health	+	0	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. Supporting rail operators to deliver quicker, more reliable and accessible journeys may encourage the use of the railway network, which could see a shift away from private vehicle usage. This may lead to improvements in air quality and noise, reduce congestion, and lead to positive benefits to human health. However, the exact extent of improvements in air quality and noise is uncertain. Overall, a minor positive effect has been assessed against this SEA Objective. The reasonable alternative approach of 'business as usual' is unlikely to achieve the same benefits without the involvement of NCC and engagement with rail operators. There are currently no planned upgrades or improvements to King's Lynn Railway station. As such, a neutral effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Economy & Employment	++	0	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Increasing the frequency of rail services may contribute to improved public transport reliability, resulting in more reliable journey times, improving access to employment and training opportunities in both urban and rural areas, alongside improving freight journeys. Additionally, delivering more integrated and accessible services may lead to more residents, visitors, and tourists visiting town centres, boosting local economies. As such, significant positive effects have been identified. However, the exact measures to deliver improvements to the rail network is currently unknown. The reasonable alternative approach of 'business as usual' is unlikely to achieve the same benefits without the involvement of NCC and engagement with rail operators. There are currently no planned upgrades or improvements to King's Lynn Railway station. As such, a neutral effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Community Safety	+	0	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. Increasing the frequency, reliability, and accessibility of rail services may result in more reliable journey times and improved feelings of safety. Additionally, measures such as improving railway stations may contribute to feelings of safety, particularly during night time hours. As such, a minor positive effect has been assessed against this SEA Objective, however, the exact measures are currently unknown. The reasonable alternative approach of 'business as usual' is unlikely to achieve the same benefits without the involvement of NCC and engagement with rail operators. There are currently no planned upgrades or improvements to King's Lynn Railway station. As such, a neutral effect has been identified.

Biodiversity & Natural Capital	+/-	0	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. Minor positive effects have been identified as supporting rail operators to deliver quicker, more reliable and accessible journeys may encourage the use of public transport, which could see a shift away from private vehicle usage. This may lead to improvements in air quality and noise, reduce congestion, reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. However, there is potential for negative effects on biodiversity due to improvements to the railway station that will likely require construction and cause disturbance to local habitats as a result of noise, vibration, and air pollution. However, it is assumed that any new infrastructure would be within the footprint of the existing station. The scale and nature of this is likely to be determined by individual scheme design and location and it is assumed that, in line with national and local planning policy, any proposals would seek to avoid and minimise biodiversity impacts and provide enhancements where possible. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. Overall, a mixed effect has been assessed against this SEA Objective. The reasonable alternative approach of 'business as usual' is unlikely to achieve the same benefits without the involvement of NCC and engagement with rail operators. This is based on the assumption that this scenario will not comprise improvements to
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SEA Objective	Policy	Alternatives	Description of effects
			the train station that could involve physical works affecting biodiversity. As such, a neutral effect has been identified.
Landscape, Seascape & Townscape	+/-	0	There is one designated National Landscape, The Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Improvements to rail facilities will improve access to King's Lynn and its surrounding areas and promote the use of sustainable transport. This will have a minor positive effect on this SEA Objective. Due to the distance of the station to the Norfolk Coast National Landscape, it is not anticipated that there would be any effect on its setting through implementation of this Policy. However, there is expected to be temporary minor negative effects on townscape during construction, associated with improvements to the station. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction, or subsequent improvement to accessibility.

SEA Objective	Policy	Alternatives	Description of effects
Historic Environment	+/-	0	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. There are a number of Listed Buildings, and one Scheduled Monument, within close proximity of King's Lynn Rail Station, with the Station itself also a Grade II Listed Building. Improvements to rail facilities will improve access to these heritage assets and promote the use of sustainable transport. This will have a minor positive effect on this SEA Objective. Construction associated with the improvements, however, will likely result in negative effects on this SEA Objective through temporary restricted access and impacts on the setting of nearby assets. As there would be negative effects on the King's Lynn railway station, itself a Listed Building, effects may be significant. However, mitigation measures are expected to be implemented to avoid significant effects and it is therefore concluded that there would be minor negative uncertain effects against this SEA Objective. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction, or subsequent improvement to accessibility.

Water Environment	+/-	0	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Improvements to the station and line provide opportunity to incorporate aspects of sustainable design, such as green infrastructure and SuDS that could work to improve drainage, and reduce the risk of flooding. This could result in a positive effect on this SEA Objective through improved drainage, reducing discharge from roads and surface water flooding. Although the location and detail of infrastructure is unknown, including design, this is scored as a minor positive effect. As works will likely take place in the footprint of existing transport infrastructure, it is not anticipated that there would be any land take or additional impermeable surface, reducing resilience to the impacts of climate change. King's Lynn Railway Station is situated immediately adjacent to Gaywood River, a tributary of the River Great Ouse to the west. Construction works could lead to pollution of the water environment, through noise, dust, and surface runoff entering these waterbodies leading to a reduction in quality. These effects are mitigable through best practice construction measures, but there is concluded to be a residual minor negative effect due to the remaining potential for pollution. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction, or subsequent effects on water quality.
Air Quality	-	0	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5,

SEA Objective	Policy	Alternatives	Description of effects
			though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. The Railway Road AQMA is immediately adjacent to King's Lynn Rail Station. Construction works could lead to temporary reductions in air quality, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. Reductions in air quality during construction that impact the AQMA could lead to significant negative effects on this SEA Objective. Potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Therefore, a minor negative effect has been scored against this SEA Objective. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction and no subsequent effect on air quality.

SEA Objective	Policy	Alternatives	Description of effects
Climate Change & Greenhouse Gases	+	0	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. Improvements to the rail station and line provide opportunities to support low carbon and energy efficient design, reduce levels of embodied carbon, and to implement Green Infrastructure, to ameliorate the warming effects of climate change and urban heat island effect. Due to the assumed scale of works associated with this Policy, and therefore the opportunities for accompanying benefits, a minor positive effect has been scored against this SEA Objective, although details of materials and design to be used are not known. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction and no subsequent effect on climate change..

SEA Objective	Policy	Alternatives	Description of effects
Noise	-	0	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. Construction of improvements to the rail station and line will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects. Construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP. Operation of additional journeys would also lead to increased noise. If increased noise levels are near to or within sensitive receptors, or lead to designation of new NIAs, effects may be significant, though this is unlikely as increased noise will be in an area already subject to noise associated with transport infrastructure. Therefore, a minor negative effect has been assessed against this SEA Objective. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction, or subsequent effect on noise. .

SEA Objective	Policy	Alternatives	Description of effects
Material Assets	+	0	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. Improvements to the rail station and line provide an opportunity to incorporate resource efficiency and waste management, to minimise waste and maximise use of sustainable materials, and to promote sustainable transport. This will likely lead to positive effects against this SEA Objective, although details of materials to be used and detailed designs are unavailable. Overall, a minor positive effect is scored against this objective. The proposed alternative is for NCC not to have any input into rail services. There are currently no planned upgrades or improvements to King's Lynn Railway station, and as such, there will likely be no effect against this SEA Objective as there would be no construction, or subsequent effect on material assets.



Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a number of objectives identifying uncertainties associated with Policy 5. Uncertainties associated with Policy 5 are primarily around the unknown location and magnitude of the improvements to rail services and any infrastructure works required.

Significant positive effects have been identified for the following SEA objectives: population and equalities and economy and employment. These significant positive effects are largely to the delivery of quicker, more reliable and accessible journeys that may encourage the use of public transport and improve connectivity across the KL&WN area.

Significant negative effects have been identified against the air quality objective due to potential construction works that could lead to reductions in air quality and increased localised traffic that could impact the Railway Road AQMA adjacent to King's Lynn Rail Station.

The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC in rail services. This would likely result in no changes to rail services and associated infrastructure, and no subsequent effects for all of the objectives.

Policy 6: Active Travel

Description: Norfolk County Council will support and promote the use and benefits of active and sustainable modes of travel, including supporting schemes in the King's Lynn Local Cycling and Walking Infrastructure Plans to reduce dependency on cars.

Alternatives:

- To do nothing and continue with a business as usual approach for active travel – This is not considered a reasonable alternative and therefore has not been assessed under the SEA Framework.

Implementation of Policy 6 would involve the promotion of active travel and sustainable modes of travel across the KL&WN area and give priority to walking, cycling and public transport, leading to more sustainable travel. This is not expected to require construction of major new infrastructure, however there may be works associated with providing new or improving existing active travel routes to increase uptake and reduce dependency on cars.

Table D-6 – Assessment of the effects of Transport Strategy Policy 6 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
Population & Equalities	+	N/A	KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. The development and promotion of active travel routes and maintenance of existing routes is likely to improve connectivity across the KL&WN area, which will enhance access to local facilities and town centres. It is also likely to contribute to improving the active travel network for future generations, supporting population growth. It is anticipated that improvements to existing and new routes may lead to better conditions for people with mobility aids, or adapted bicycles, improving the accessibility of routes, and reducing inequalities. Improvements to the active transport network may also aid in preventing social isolation in rural and urban areas. Although the exact location and scale of transport measures are currently unknown, it is anticipated that implementation of this policy would have a minor positive effect against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Human Health	++	N/A	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. The promotion of new sustainable transport measures and active travel routes across the King's Lynn area will encourage residents and visitors to take part in walking and cycling, improving physical activity rates and therefore physical and mental health. Improvements to the public transport and active transport network may also aid in preventing social isolation in rural and urban areas, although the exact location and scale of transport measures are currently unknown. Additionally, improving noise and air quality as a result of encouraging a modal shift away from private vehicle usage will also improve physical health, particularly for children, the elderly, pregnant women and those with respiratory conditions exacerbated by poor air quality. A significant positive effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Economy & Employment	+	N/A	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Developing new active travel routes and improving the scale and scope of public transport will contribute to improving access across the area, including within rural areas. This will provide improved accessibility to services, town centres, and employment sites. Additionally, developing new routes and new transport infrastructure may contribute to increasing employment and training opportunities within the area. However, the exact scale and location of the proposed transport measures are currently unknown. A minor positive effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

Community Safety	++	N/A	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. The promotion of active travel and sustainable transport modes will likely contribute to improved feelings of safety along routes. Measures such as improving pavements and footways, making it easier for those on foot, in wheelchairs or pushing prams, encouraging more residents, visitors, and tourists to use the active transport network. Measures such as improvements to road crossings would reduce accident/hazard rates for pedestrians crossing the road, and improved signage and way marking would be beneficial for cyclists and pedestrians. However, at this stage, the exact measures are currently not known. Additionally, a reduction in the dependency on cars will likely reduce road collisions incidents, creating a safer environment for pedestrians, cyclists, and those driving on the roads. Overall, a significant positive effect has been identified. No reasonable alternative has been identified for this policy.
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SEA Objective	Policy	Alternatives	Description of effects
Biodiversity & Natural Capital	+/-	N/A	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. There is potential for positive effects to arise as a result of encouraging a modal shift away from private car use, improving air quality across the County, and reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. However, there is potential for negative effects on biodiversity as a result of the promotion of the active travel network which may cause disturbance to local habitats as a result of noise, vibration and potential littering. Physical works that might be required to provide new or improve existing routes may also cause adverse impacts locally. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. Therefore, a minor positive and minor negative effect have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Landscape, Seascape & Townscape	+	N/A	There is one designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. It is assumed that implementation of this policy will not require any construction and will focus on promotion of active and sustainable transport and reducing dependency on cars. Promotion of sustainable transport and active travel, and a reduction in use of private cars, may increase the number of users accessing the countryside and Norfolk Coast National Landscape using these methods. This would lead to an increase in sustainable tourism and a reduction in pollution in these areas, therefore having a positive effect on the setting of landscape and townscapes. Although the degree to which active travel and sustainable transport use will increase, and use of cars will decrease, is not known, minor positive effects have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Historic Environment	+/-	N/A	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Promotion of sustainable transport and active travel, and a reduction in use of private cars, may increase the number of users accessing heritage assets and the historic environment using these methods. This would lead to an increase in sustainable tourism and a reduction in pollution around heritage assets, therefore having a positive effect on their setting. Although the degree to which active travel and sustainable transport use will increase, and use of cars will decrease, is not known, minor positive effects have been assessed against this SEA Objective. However, there is potential for negative effects on the historic environment as a result of the promotion of the active travel network which may cause disturbance to the setting of heritage assets as a result of noise, vibration and potential littering. Physical works that might be required to provide new or improve existing routes may also cause adverse impacts locally. Therefore, a minor positive and minor negative effect have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Water Environment	+	N/A	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. A transition away from private car use and increase in active travel and sustainable transport methods will result to a reduction in transport associated pollution, including air and noise pollution. Reduction in air pollution could have minor indirect positive effects on the water environment through an improvement in general quality. A reduction in emissions, could also work to reduce the impacts of climate change through a lower contribution to the greenhouse effect, this could work to lower the risk of climate change associated flooding. Overall, it is assessed that there would be a minor positive effect against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Air Quality	+	N/A	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. A transition away from private car use and increase in active travel and sustainable transport methods will result in a reduction in congestion and transport emissions, having a positive effect on this SEA Objective due to a reduction in air pollution. As the degree to which active travel and sustainable transport use will increase and reliance on cars will decrease, and whether this will occur in AQMAs and congestion hot spots is not known, minor positive effects have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.
Climate Change & Greenhouse Gases	++	N/A	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. A transition away from private car use and increase in active travel and sustainable transport methods will result in a reduction in transport derived greenhouse gas emissions, reducing the sectors contribution to climate change and contributing to the council's net zero ambition. Although the degree to which active travel and sustainable transport use will increase, and reliance on cars will decrease, is not known, significant positive effects have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Noise	+	N/A	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. It is assumed that implementation of this policy will not require any major construction and will focus on promotion of active and sustainable transport and reducing dependency on cars. A transition away from private car use and increase in active travel and sustainable transport methods could result in a reduction in noise from transport, having a positive effect on this SEA Objective due to a reduction in vehicle movements and congestion. As the degree to which active travel and sustainable transport use will increase and reliance on cars will decrease, and whether this will occur near sensitive noise receptors is not known, minor positive effects have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.
Material Assets	+	N/A	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. A transition away from private car use and increase in active travel and sustainable transport methods could lead to a reduction in resource use, through reduced fuel consumption by private cars and increased use of sustainable fuels. Although details on fuel use and energy consumption are not known, a minor positive effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.



Summary of Effects

Overall, for the majority of SEA Objectives, positive effects have been identified with a number of objectives identifying uncertainties associated with Policy 6. Uncertainties associated with Policy 6 are primarily around the unknown location and scale of transport measures to be implemented.

Significant positive effects have been identified for the following SEA objectives: Human Health, Community Safety, and Climate Change & Greenhouse Gases. These significant positive effects are largely to the promotion of active travel and sustainable modes of travel and encouraging a transition away from private vehicle usage across the KL&WN area, which is likely to improve physical health, feelings of safety, and air quality.

No significant negative effects have been identified, though a minor negative has been identified for the Biodiversity and Natural Capital and Historic Environment SEA Objectives, due to the potential for increased disturbance to wildlife and to heritage settings around active travel routes.

No reasonable alternative has been identified for this policy.

Policy 7: Climate Change Resilience

Description: Norfolk County Council, working with stakeholders and partners, will contribute to making the transport network zero emission by 2050 and resilient to the impacts of severe weather and climate change.

Alternatives:

- To take a business as usual approach with no policy specifically for King's Lynn, responding only when damage has occurred due to climate change and severe weather events – This is considered a reasonable alternative and has been assessed under the SEA Framework.

It is assumed that works to make the transport network net zero and improve the resilience of the transport network to the effects of severe weather and climate change will require some construction works, though these are likely to be within the footprint of existing infrastructure and not require significant land take.

Table D-7 – Assessment of the effects of Transport Strategy Policy 7 and its Reasonable Alternatives

SEA Objective	Policy	Alternativ es	Description of effects
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Population & Equalities	+	+	KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. To encourage a shift to more sustainable modes of transport and to increase the uptake of more efficient conventional vehicles and EVs, the necessary infrastructure must be available. For EVs, EV charging infrastructure will be required to be more accessible and readily available. Implementing EV charging may contribute to improving transport infrastructure for future generations and support population growth. This is also likely to encourage residents who do not have access to private electric charging infrastructure to transition to EVs. Improving access to the necessary infrastructure is likely to benefit those groups who may currently be isolated and unable to access these services, including the elderly, disabled and socio-economically deprived. Additionally, incentivising the use of public transport by implementing improvements to the King's Lynn Transport Interchange will improve accessibility for the residents, visitors, and tourists of King's Lynn. Therefore, a minor positive effect has been identified for this SEA Objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to
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SEA Objective	Policy	Alternatives	Description of effects
			severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This may have positive effects on population and equalities by improving connectivity and accessibility across KL&WN, although the benefits are likely to be realised at a much lesser scale than with the policy. As such, a minor positive effect has been identified.

Human Health	+/-	+	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. By transitioning to a zero-emissions transport network, the KL&WN area will subsequently have better air quality and better conditions for active travel. There are anticipated to be positive effects upon human health as a result of improved air quality. This will improve physical health, particularly for children, the elderly, pregnant women and those with respiratory conditions exacerbated by poor air quality. These benefits are likely to be realised at a greater magnitude in urban areas, where there is typically denser traffic and poorer air quality. As such, a minor positive effect has been identified. However, the exact placement of these interventions and extent is uncertain. Minor negative effects have been identified as a result of works to update existing infrastructure that may be required to increase climate change resilience, as well as updates and works to contribute to making the transport network zero-emissions, which may lead to temporary reductions in air quality due to dust and construction traffic. Potential negative effects on air quality should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Overall, minor mixed effects have been identified for this SEA Objective.
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SEA Objective	Policy	Alternatives	Description of effects
			The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, encouraging more sustainable and active travel, and creating Local Cycling and Walking Infrastructure Plans that cover the whole county. This is likely to have positive effects on human health. As such, a minor positive effect has been identified, although the benefits are likely to be realised at a much lesser scale than with the policy.

Economy & Employment	+/-	0	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. A minor positive effect has been identified due to the promotion of a net-zero public transport network may encourage residents, visitors, and tourists to take public transport, which may boost the number of visitors to town centres and support the local economy and tourism economy. It may also increase access to jobs and training opportunities. Additionally, working with the tourism and leisure industry to promote sustainable travel may promote these services to tourists, improving the economy of these sectors. This has been assessed as having a minor positive effect against this SEA Objective. However, a minor negative effect has been identified as during construction, there may be temporary severance or restricted access along the A148, which may restrict to access to local services, with congestion and delays likely, impacting local economies. Overall, mixed effects have been identified for this SEA Objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and
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SEA Objective	Policy	Alternatives	Description of effects
			active travel. This is likely to have limited effects on economy and employment within KL&WN. As such, a neutral effect has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Community Safety	+	0	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. Increasing resilience to severe weather and climate change may improve feelings of safety in the area by reducing vulnerability to extreme weather events, particularly to those most at risk. This has been assessed as having a minor positive effect against this SEA Objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have limited effects on community safety within KL&WN. As such, a neutral effect has been identified.

Biodiversity & Natural Capital	+/-	0	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. Policy 7 is unlikely to damage locally and nationally designated sites through infrastructure provision, traffic, or maintenance as it is anticipated that national and local planning policy as well as legislative requirements will be followed. It is not anticipated that major construction works will take place, and it is assumed that it will be within the footprint of existing infrastructure and not require any significant land take. However, temporary negative effects on biodiversity may be realised during construction of new infrastructure, resulting in a minor negative effect against this SEA Objective. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. Minor positive effects have been identified as Policy 7 may lead to improvements in air quality and noise, reducing traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. Overall, mixed effects have been identified for this SEA Objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs,
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SEA Objective	Policy	Alternatives	Description of effects
			improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have limited effects on biodiversity and natural capital within KL&WN. As such, a neutral effect has been identified.

Landscape, Seascape & Townscape	+/-	0	There is one designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Contributing to making the transport network net zero and increasing resilience will provide opportunity to incorporate green infrastructure into design, promote sustainable transport, and to protect and enhance the character of the Norfolk National Landscape. This will have positive effects on landscape and townscapes through protecting and enhancing their settings. Though the exact location of works is not known this has been assessed as a minor positive effect. It is anticipated that there would be temporary negative effects during construction due to restricted access to designated landscapes depending on location, potential for pollution through construction related noise, emissions and dust etc, as well as impacts on visual amenity. It is not anticipated that major construction works will take place, and it is assumed that it will be within the footprint of existing infrastructure and not require any significant land take. These impacts are expected to be minor in magnitude and mitigable through use of best practice construction measures such as a CEMP and CTMP. A residual minor negative effect has been identified. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and
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SEA Objective	Policy	Alternatives	Description of effects
			active travel. This is likely to have limited effects on landscape and townscape within KL&WN. As such, a neutral effect has been identified.

Historic Environment	+/-	0	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Contributing to making the transport network net zero and increasing resilience will provide opportunity to incorporate green infrastructure into design and could improve the setting of heritage assets and indirectly increase their resilience to severe weather and climate change, if in the vicinity of heritage assets. This will have a minor positive effect on this SEA Objective, although the exact location of works is not known. Construction associated with implementation of Policy 7 may have negative impacts on designated historic assets, through potential damage, restricted access, impacts on visual amenity and noise and air pollution. It is not anticipated that major construction works will take place, and it is assumed that it will be within the footprint of existing infrastructure and not require any significant land take. These impacts are anticipated to be temporary. A residual minor negative effect has been identified. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have limited effects on the historic environment within KL&WN. As such, a neutral effect has been identified.
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Water Environment	+/-	0	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Works to increase resilience and make the transport network net zero provide opportunity to incorporate aspects of sustainable design, such as green infrastructure and SuDS that could work to improve drainage, and reduce the risk of flooding. Although the location and detail on design of infrastructure is unknown, a minor positive effect on this SEA Objective has been assessed due to improved drainage, reducing discharge from roads and surface water flooding. As works will likely take place in the footprint of existing transport infrastructure, it is not anticipated that there would be any land take or additional impermeable surface, reducing resilience to the impacts of climate change. Where construction works take place near bodies of water, this could lead to pollution of the water environment, through noise, dust, and surface runoff entering watercourses and leading to a reduction in quality. These effects are mitigable through best practice construction measures, but there is concluded to be a residual minor negative effect due to the remaining potential for pollution. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have limited effects on the water environment within KL&WN as there would be no construction, or subsequent incorporation of new green infrastructure or SuDS. As such, a neutral effect has been identified.
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Air Quality	+/-	+/-	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. Working towards a net zero transport network will likely include a reduction in the number of cars on the road, as part of a suite of interventions. This would lead to a reduction in particulate emissions and a subsequent improvement in air quality. Although the scale and exact location of works are not known, a minor positive effect has been assessed against this SEA Objective due to the potential to improve air quality within AQMAs. Construction works could lead to temporary reductions in air quality, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. Reductions in air quality during construction that impact AQMAs could lead to significant negative effects on this SEA Objective. Potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Therefore, overall, minor negative effects have been assessed against this SEA Objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have minor positive effects on air quality within KL&WN, however, the positive effects are likely to be realised at a lesser scale than with the policy. Minor negative effects have also been identified due to
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SEA Objective	Policy	Alternatives	Description of effects
			potential construction works and temporary reductions in air quality. Therefore, a mixed score has been identified.

Climate Change & Greenhouse Gases	++	+	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. Implementation of Policy 7 will inherently have a positive effect against this SEA Objective, as it aims to significantly reduce greenhouse gas emissions, and improve resilience to the effects of climate change. Working towards a net zero transport network will likely include a significant reduction in the number of cars on the road, and increase in low carbon transport use, as part of a suite of interventions. This will reduce GHGs from traffic and other transport modes, helping the council to meet its net zero targets. Though the exact scale and location of works are not known, a significant positive effect has been assessed against this SEA Objective. Increasing the resilience of the transport network to climate change will also likely incorporate elements of green infrastructure, supporting low carbon and energy efficient design and reducing embodied carbon, that could work to increase the rate of CO₂ drawdown and ameliorate the warming effects of climate change and urban heat island effect, though the extent of this is dependent on the extent and type of vegetation used. This is also anticipated to have a significant positive effect on this SEA Objective. It is not anticipated that major construction works will take place, and it is assumed that it will be within the footprint of existing infrastructure and not require any significant land take. Negative effects are anticipated during construction, associated with vehicle emissions and embodied carbon of construction materials. These impacts are anticipated to be temporary and mitigable through the use of best practice construction measures, such as a CEMP and CTMP, and use of low
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SEA Objective	Policy	Alternatives	Description of effects
			carbon design and materials. Details of design and materials are not known however. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. Another focus area is adapting to climate change, working with the Tyndall Centre to better understand risks of climate change impacts and potential adaptation responses. Alongside securing appropriate investment on adaptation across the county. This is likely to have minor positive effects on climate change and greenhouse gases within KL&WN, however, the positive effects are likely to be realised at a lesser scale than with the policy.

Noise	+/-	+/-	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. Implementation of Policy 7 may lead to a positive effect on noise levels due to a reduction in congestion from increased use of sustainable transport and EVs as a consequence of a move to a net zero transport network. Although the scale of reduction is not known, this has been assessed as having a minor positive effect against this SEA Objective. Construction of net zero and resilient infrastructure will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects and could take place near sensitive receptors. Construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP, therefore a minor negative effect has been assessed against this SEA Objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have minor positive effects on noise quality within KL&WN, however, the positive effects are likely to be realised at a lesser scale than with the policy. Minor negative effects have also been identified due to potential construction works and temporary reductions increase in noise pollution. Therefore, a mixed score has been identified.
Material Assets	++	0	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-

SEA Objective	Policy	Alternatives	Description of effects
			agricultural. The area contains 4,102 renewable energy sites and three landfill sites. Improvements to the transport network and climate change resilience provide an opportunity to enhance land quality, ensure that critical infrastructure is resilient to the effects of climate change, incorporate resource efficiency and waste management, to minimise waste and maximise use of sustainable materials, and to promote sustainable transport. This will likely lead to positive effects against this SEA Objective. Although details of materials to be used and detailed designs are unavailable, due to the scale and nature of the option a significant positive effect is scored against this objective. The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions. However, Norfolk County Council's 2023 Climate Strategy aims to improve sustainable travel across Norfolk by supporting the switch to EVs, improving the county's public transport, and encouraging more sustainable and active travel. This is likely to have limited effects on material assets within KL&WN. Therefore, a neutral score has been identified.

Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a substantial number of objectives identifying uncertainties associated with Policy 7. Uncertainties associated with Policy 7 are primarily around the unknown location and magnitude of the improvement to make the transport network net zero by 2050 and improve resilience to severe weather and climate change.



Significant positive effects have been identified for the following SEA objectives: Climate Change & Greenhouse Gases, and Material Assets. These significant positive effects are largely to the shift to more sustainable modes of transport and promotion of the uptake of EVs, improving the transport infrastructure for future generations and improving air quality and limiting greenhouse gas emissions.

No significant negative effects have been identified for Policy 7, however a range of minor negative effects have been identified, due to potential construction-related impacts on the Norfolk Coast National Landscape, heritage assets, and air quality.

The reasonable alternative identified for this option is to enact no policy, and to take a reactionary approach in response to the effects of climate change and severe weather. This would result in no proactive work to improve resilience to severe weather and climate change, or to achieve net zero greenhouse gas emissions and therefore no effect across the SEA objectives.

Policy 8: Improved Air Quality

Description: Norfolk County Council, working with partners, will seek to reduce emissions from vehicles to improve air quality. Measures may include retrofitting vehicles with equipment to reduce emissions and promoting transport electrification.

Alternatives:

- To do nothing and continue with a business as usual approach whereby emissions are likely to be reduced by technological advances and the market – This is considered a reasonable alternative and has been assessed under the SEA Framework.
- To not work in partnership with other councils and instead act in isolation - This is not a reasonable alternative due to different responsibilities for air quality and transport and therefore has not been assessed under the SEA Framework.

Implementation of Policy 8 would lead to an improvement in air quality through reduction in transport emissions and promote the uptake of EVs.

Table D-8 – Assessment of the effects of Transport Strategy Policy 8 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
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Population & Equalities			KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019.
			To encourage a shift to more sustainable modes of transport and to increase the uptake of more efficient conventional vehicles and EVs, the necessary infrastructure must be available. To support EVs more accessible and readily available charging infrastructure will be required.
	++	+	Implementing EV charging may contribute to improving infrastructure for future generations. This is also likely to encourage residents who do not have access to private electric charging infrastructure to transition to EVs. Additionally, providing access and support for local communities is likely to benefit those groups who may currently be isolated and unable to access these services, including the elderly, disabled and socio-economically deprived.
			A cleaner, more sustainable transport system supports long-term population growth by making places healthier, more liveable, and attractive for investment. It is also likely to increase resilience of the transport network for future generations, and increase mobility and accessibility for both the rural and urban population, therefore reducing inequality. However, the exact measures to be implemented are uncertain. Overall, it is concluded that there will be a significant positive effect on this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC, instead leaving emissions to be reduced by

SEA Objective	Policy	Alternatives	Description of effects
			technological advances or left to the market. KL&WN have a statutory duty to produce an Air Quality Action Plan (AQAP) which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, however, the changes would likely be realised at a slower pace than with implementation of Policy 8. As such, minor positive effects on population and equalities have been identified.

Human Health	+	+	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. There are anticipated to be positive effects upon human health as a result of improved air quality. This will improve physical health, particularly for children, the elderly, pregnant women and those with respiratory conditions exacerbated by poor air quality. Additionally, the policy promotes active travel which may contribute to improving physical activity rates and therefore health. These benefits are likely to be realised at a greater magnitude in urban areas, where there is typically denser traffic and poorer air quality. However, the exact measures to be implemented are uncertain. Overall, it is concluded that there will be a minor positive effect on this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC, instead leaving emissions to be reduced by technological advances or left to the market. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, however, the changes would likely be realised at a slower pace than with implementation of Policy 8. Overall, minor positive effects on human health have been identified.
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Economy & Employment	+	0	KL&WN is home to word-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Investment in low-emission vehicles and public transport may increase mobility and improve access across the area, including within rural areas. This will provide improved accessibility to services, town centres, and employment sites, encouraging more residents and visitors to travel to town centres and employment sites, boosting local economies. Additionally, retrofitting vehicles to reduce emissions will likely have positive effects on the economy by boosting local supply chains, if jobs and materials are sourced locally, and will also act to support the local job economy. However, the exact scale and location of the proposed transport measures is currently unknown. Overall, it is concluded that there will be a minor positive effect on this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC, instead leaving emissions to be reduced by technological advances or left to the market. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, with no subsequent effects on economy and employment.
Community Safety	0	0	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male

SEA Objective	Policy	Alternatives	Description of effects
			and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. It is not anticipated that 'Policy 8 Improving Air Quality' will have any positive or negative effects on community safety, and therefore a neutral score has been identified. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC, instead leaving emissions to be reduced by technological advances or left to the market. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, with no subsequent effects on community safety.

SEA Objective	Policy	Alternatives	Description of effects
Biodiversity & Natural Capital			There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. There is potential for positive effects to arise as a result of encouraging a modal shift away from private car use, encouraging public transport uptake, which is likely to improve air quality across the KL&WN area, and reduce traffic disturbance to biodiversity. This is particularly likely to benefit species that utilise hedgerows as their habitats. However, the exact measures to be implemented are uncertain. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to contribute to positive effects somewhat. Overall, it is concluded that there will be a minor positive effect on this SEA Objective. The proposed reasonable alternative to this policy would be business as usual, with no involvement of NCC, instead leaving emissions to be reduced by technological advances or left to the market. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, however, the changes would likely be realised at a slower pace than with implementation of Policy 8. As such, minor positive effects on biodiversity and natural capital have been identified.

SEA Objective	Policy	Alternatives	Description of effects
Landscape, Seascape & Townscape			There is 1 designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Implementation of Policy 8 is likely to result in positive effects against this SEA Objective. Reduction in emissions from vehicles to improve air quality will result in improvement to the quality and condition of the townscape and landscape, as well as in the National Landscape, through a reduction in air pollution. Although the extent of reduction in emissions is not known, it is concluded that there will be a minor positive effect on this SEA Objective. It is assumed that there is no construction associated with this policy, therefore no negative impacts on landscape and townscape are anticipated. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is also expected to have a minor positive effect on this SEA Objective. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, through a reduction in pollution and the benefits this will have on landscape, townscape and the National Landscape. However, it is expected that any positive effects would be realised more slowly than would be seen with the implementation of Policy 8.

SEA Objective	Policy	Alternatives	Description of effects
Historic Environment			The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Implementation of Policy 8 is likely to result in positive effects against this SEA Objective. Reduction in emissions from vehicles to improve air quality will result in improvement to the setting, quality and condition of designated and undesignated heritage assets, through a reduction in air pollution. As the extent of reduction in emissions is not known, it is concluded that there will be a minor positive uncertain effect on this SEA Objective. It is assumed that there is no construction associated with this policy, therefore no negative impacts on landscape and townscape are anticipated. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is also expected to have a minor positive uncertain effect on this SEA Objective. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, through a reduction in pollution and the benefits this will have on the historic environment. However, it is expected that any positive effects would be realised more slowly than would be seen with the implementation of Policy 8.

SEA Objective	Policy	Alternatives	Description of effects
Water Environment	+	+	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Reduction in air pollution could have minor indirect positive effects on the water environment through an improvement in general quality. A reduction in emissions, could also work to reduce the impacts of climate change through a lower contribution to the greenhouse effect, this could work to lower the risk of climate change associated flooding. Overall, it is assessed that there would be a minor positive effect against this SEA Objective. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is also expected to have a minor positive effect on this SEA Objective. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, through a reduction in pollution and the benefits this will have on the water environment. However, it is expected that any positive effects would be realised more slowly than would be seen with the implementation of Policy 8.

SEA Objective	Policy	Alternatives	Description of effects
Air Quality			The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. The purpose of Policy 8 is to reduce emissions from vehicles to improve air quality. This will inherently support measures to reduce levels of air pollution from vehicles, which will lead to an improvement in air quality across the KL&WN area, including in AQMAs. Although the scale of the reduction is not known, a minor positive effect is concluded. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is expected to have a minor positive effect on this SEA Objective as improvements to air quality are likely to be realised more slowly and to a lesser degree of significance than if Policy 8 is implemented.

SEA Objective	Policy	Alternatives	Description of effects
Climate Change & Greenhouse Gases	++	+	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. The purpose of Policy 8 is to reduce emissions from vehicles to improve air quality. This includes greenhouse gas emissions and will support the council's net zero ambitions and make a significant reduction in the UK's most carbon intense sector, transport. Although the scale of the reduction is not known and the precise effect is uncertain a significant positive effect is concluded as the policy directly aims to reduce transport emissions. This reduction in emissions will also work to reduce the impacts of climate change in the long term, through a reduction in emissions lessening the greenhouse effect and having indirect impacts on sea level rise, flood risk, and other climate driven risks. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is expected to have a minor positive effect on this SEA Objective. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area, as a reduction in emissions and subsequent impacts on climate change are likely to be realised more slowly and to a lesser degree of significance than if Policy 8 is implemented.

SEA Objective	Policy	Alternatives	Description of effects
Noise	+	0	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. The purpose of Policy 8 is to reduce emissions from vehicles to improve air quality. Measures to achieve this would likely lead to increased use of sustainable transport and EV's, and a reduction in use of private ICE vehicles. This would lead to a reduction in the level of noise from traffic. This is anticipated to have a minor positive effect against this SEA Objective. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is not anticipated to have any effect on this SEA Objective. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would be unlikely to result in improvements to noise within the KL&WN area.

SEA Objective	Policy	Alternatives	Description of effects
Material Assets	+	0	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. Implementation of Policy 8 would lead to an improvement in air quality through reduction in transport emissions and promote the uptake of EVs. This promotes the sustainable use of resources and will have a minor positive effect on this SEA Objective. The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is not anticipated to have any effect on this SEA Objective. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would be unlikely result in any effects on the material assets objective.

Summary of Effects

Overall, for the majority of SEA Objectives, positive effects have been identified with a number of objectives identifying uncertainties. Uncertainties associated with Policy 8 are primarily around the unknown possible interventions and extent of reduction in emissions.

Significant positive effects have been identified for the following SEA objectives: Population & Equalities, Human Health, and Climate Change & Greenhouse Gases. These significant positive effects are largely due to increased resilience of the transport network for future generations and the reduction of levels of air pollution from vehicles and improvement in air quality

No negative effects have been identified for implementation of Policy 8.



The proposed alternative, to leave this reduction in emissions and improvement in air quality to the market and technological advances is not anticipated to have any significant effect on any of the SEA Objectives, however, a number of minor positive and neutral effects were identified. KL&WN have a statutory duty to produce an AQAP which outlines actions to take to improve air quality. This would likely result in improvements to air quality within the KL&WN area.

Policy 9: Road Traffic Harm Reduction

Description: Norfolk County Council, working with partners, will endeavour to reduce road traffic collisions and casualty numbers through the safe systems approach. Improvement schemes will aim to address the fear of road traffic affecting vulnerable road users.

Alternatives:

- To do nothing and only react to new data or accidents – This is not considered a reasonable alternative and has therefore not been assessed under the SEA Framework.

Implementation of Policy 9 would involve utilisation of the safe systems approach to road safety management across the KL&WN area. This approach may involve some construction associated with improvements to existing infrastructure, the scale and scope of this is uncertain but may include works on the A10, A47 and A149 and key roundabouts. It is not anticipated that new infrastructure would be required as a result of this policy.

Table D-9 – Assessment of the effects of Transport Strategy Policy 9 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
Population & Equalities	++/-	N/A	KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. It is anticipated that measures put in place to reduce road traffic collisions through the safe systems approach may attract different residents and visitors, those of whom may be vulnerable or fear driving, across the KL&WN area, promoting accessibility and reducing feelings of isolation. This may reduce inequality, therefore, a significant positive effect has been identified. During construction, there may be temporary severance or restricted access along the A148, which may restrict to access to local services, with congestion and delays likely, as such a minor negative effect has been identified. Overall, mixed uncertain effects have been identified for this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Human Health	++	N/A	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. There are anticipated to be major positive effects upon human health as a result of increasing user safety for road users and pedestrians. Prioritising safety improvements on routes with high numbers of collisions and high KSI statistics may contribute to reducing accidents, collisions, and the number of KSI on rural roads. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Economy & Employment	+	N/A	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Any construction related to improvements and implementation of the safe systems approach will likely have positive effects on the economy by boosting local supply chains, if jobs and materials are sourced locally, and will also act to support the local job economy. However, the exact scale and location of construction is currently unknown. It is anticipated that measures put in place to reduce road traffic collisions through the safe systems approach may attract different residents and visitors to areas across KL&WN, encouraging increased movement of people and boosting local economies. Overall, a minor positive effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Community Safety	++	N/A	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. There are anticipated to be major positive effects upon community safety as a result of improving safety for active travel modes, specifically improvements to walking and cycling infrastructure to connect King's Lynn and the hinterland, crossing points, and roundabouts. Additionally, prioritising safety improvements on routes with high numbers of collisions and high KSI statistics may contribute to reducing accidents and the number of KSI on rural roads. Therefore, a major positive effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Biodiversity & Natural Capital	+/-	N/A	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. There is potential for negative effects on biodiversity as a result of construction when implementing the safe systems approach. This may result in negative effects on biodiversity through disturbance and increased noise and air pollution. However, the scale and nature of this is likely to be determined by individual scheme design and location and it is assumed that, in line with national and local planning policy and legislative requirements, any proposals would seek to avoid and minimise biodiversity impacts and provide enhancements where possible, resulting in an equal and opposite positive effect. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects somewhat. Overall, minor mixed effects have been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Landscape, Seascape & Townscape	+/-	N/A	There is one designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Improvements to safety are likely to improve access and encourage use and enjoyment of landscapes and townscapes by all. Safety improvements may also work to improve townscapes by moving away from car focused street design and towards sustainable transport and active travel. Due to this, a minor positive effect has been assessed against this SEA Objective. Works on the A149 could take place within the boundary of the Norfolk Coast National Park. This may result in negative impacts on the character of the National Landscape as well as general landscape and townscape character across KL&WN. However, the scale and nature of this is likely to be determined by individual scheme design and location and it is assumed that any proposals would seek to avoid and minimise impacts to the National Landscape where possible. Construction work could also temporarily effect access to the countryside and the National Landscape, and have temporary negative effects on visual amenity. Overall, a minor negative effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Historic Environment	-	N/A	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Construction associated with improvements to existing infrastructure may have negative impacts on designated historic assets, through potential damage, restricted access, impacts on visual amenity and noise and air pollution. Though impacts are expected to be temporary, there is potential for negative impacts on heritage assets. However, it is assumed that appropriate mitigation measures will be utilised in line with relevant policy, to minimise adverse effects on heritage assets. As the location of construction works is unknown and appropriate mitigation is assumed, it has been concluded that there would be a minor negative effect against this SEA Objective for Policy 9. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Water Environment	+/-	N/A	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Improvements to existing infrastructure brings opportunity to incorporate green infrastructure, including SuDS, into design. This could result in a positive effect on this SEA Objective through improved drainage, reducing discharge from roads and surface water flooding. Although the location and detailed design of improvements are unknown, this is scored as a minor positive effect. Construction works could lead to pollution of the water environment including aquifers, rivers and streams, through noise, dust, and surface runoff entering waterbodies leading to a reduction in quality. These effects are mitigable through best practice construction measures, though there is concluded to be a residual minor effect. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Air Quality	+/-	N/A	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. Safer roads and reduced road traffic collisions and casualties may encourage more use of active travel routes, increasing the number of people walking and cycling regularly. This could reduce vehicle movements and subsequently lead to an improvement in air quality. This has been assessed as having a minor positive effect against this SEA Objective. However, implementation of the Policy could lead to temporary reductions in air quality during construction, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. This could lead to negative effects on air quality. Reductions in air quality, during construction or operation, that occur in or near an AQMA could lead to significant negative effects on this SEA Objective. As the exact location of works is unknown, a negative uncertain effect is concluded against this SEA Objective due to the potential for impacts on AQMAs. Potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP during construction. Overall a minor negative effect has been assessed against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Climate Change & Greenhouse Gases	+/-	N/A	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. Improvements to existing infrastructure could provide opportunities to increase the number of EV charging stations and promote low carbon and energy efficient design. This would support the council's net zero ambitions. More EVs and more sustainable design in use could result in lower greenhouse gas emissions, leading to a positive effect on this SEA Objective. Depending on the materials used, there is also an opportunity to reduce embodied carbon during construction. Although details on design and materials are not known, this has been scored as a minor positive effect. Improved infrastructure also brings opportunity to implement green infrastructure & SuDS. This could help to further increase climate change resilience through increasing resilience to flooding, as well as CO₂ drawdown, though the extent of this is dependent on the extent and type of vegetation used. Materials used for construction would increase use of embodied carbon, if sustainable materials and construction methods are not used. Although the details of projects and materials are unknown, it is concluded that this could have a minor negative effect. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Noise	+/-	N/A	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. Safer roads and reduced road traffic collisions and casualties may encourage more use of active travel routes, increasing the number of people walking and cycling regularly. This could reduce vehicle movements and congestion. Due to this, a minor positive effect has been assessed against this SEA Objective. Construction associated with improvements to existing infrastructure will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects. Construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP. This has been assessed as a minor negative effect against this SEA Objective. No reasonable alternative has been identified for this policy.

SEA Objective	Policy	Alternatives	Description of effects
Material Assets	+	N/A	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. There are a number of opportunities provided by improvements to existing infrastructure that could result in positive effects against this SEA Objective. Sustainable materials could be used during construction, improving resource efficiency and supporting a circular economy, and support the use of existing infrastructure. Although it is not certain if sustainable materials and construction methods will be used, this has been scored as a minor positive effect, due to the anticipated scale of the option. No reasonable alternative has been identified for this policy.

Summary of Effects

Overall, for the majority of SEA Objectives, mixed effects have been identified with a substantial number of objectives identifying uncertainties associated with Policy 9. Uncertainties associated with Policy 9 are primarily around the unknown scale and scope of construction and new infrastructure.

Significant positive effects have been identified for the following SEA objectives: Population and Equalities, Human Health, and Community Safety. These significant positive effects are largely due to the impacts of reduced traffic collisions and implementation of the Safe Systems approach, and subsequent impacts on health, safety and accessibility for residents.



No significant negative effects have been identified for Policy 9 although a number of minor negative effects have been identified. These minor negative effects are largely due to the impacts of construction of new infrastructure, and associated pollution, material use, and damage to heritage assets. The effects are all assessed as uncertain however, as details on construction are not known.

No reasonable alternative has been identified for Policy 9.

Policy 10: Supporting Culture, Heritage and Tourism

Description: Norfolk County Council, working with partners, where possible will seek to protect existing green infrastructure and enhance the public realm for the benefit of residents, visitors and tourists using a healthy streets approach to make streets attractive and work for all users of the network.

Alternatives:

- To continue with a business as usual approach by fulfilling the statutory role to not damage structures and not actively seek to enhance culture, heritage or tourism in King's Lynn – This is considered a reasonable alternative and has been assessed under the SEA Framework.

Policy 10 seeks to protect existing green infrastructure and enhance the public realm for the benefit of residents, visitors, and tourists using a healthy streets approach to enhance streets within KL&WN and work for all users of the network. It is not anticipated that construction of new infrastructure will take place. However, changes to green infrastructure and the public realm may take place which may involve minor works.

Table D-10 – Assessment of the effects of Transport Strategy Policy 10 and its Reasonable Alternatives

SEA Objective	Policy	Alternatives	Description of effects
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Population & Equalities	+	+	KL&WN has a total population of around 154,300 people, with a split of 51% female and 49% male, which is equivalent to regional and national averages. With a population density of 107 people per km², KL&WN is lower than the regional average of 331 people/km² and national average of 434 people/km². The ethnic make-up of KL&WN is also less diverse compared to the national average. In terms of deprivation, KL&WN contains neighbourhoods in both the 10% most deprived and in the 10% least deprived, ranking 79 out of 326 local authority districts in 2019. King's Lynn has a rich historic and cultural environment, with churches, guildhalls, town defences and friary remains providing an attractive destination for visitors, supporting the local economy. Improving the green infrastructure and public realm within King's Lynn is likely to include rest spaces and spaces for socialisation, which is likely to reduce loneliness within communities. It is anticipated that enhancing the public realm will improve accessibility and enhance access to local facilities, potentially improving conditions for people with mobility aids, or adapted bicycles, and improving the accessibility of routes. However, measures to implement this are currently unknown. By implementing transport schemes that are sensitive to the historic and cultural environment, residents, visitors, and tourist may be encouraged to learn more about King Lynn's historic character, building a better sense of community. This has been assessed as having a minor positive effect against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to population and equalities, for the
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SEA Objective	Policy	Alternatives	Description of effects
			reasons outlined above but likely at a lesser scale than with the policy, and as such as minor positive score has been identified.

Human Health	++	+	The average life expectancy across KL&WN is 82.8 years for females and 80.0 years for males, which is similar to regional and national averages. However, in the most deprived areas of KL&WN, life expectancy can be as much as 7.3 years lower for men and 2.9 years lower for women. Physical activity rates in adults are much lower in KL&WN when compared with regional and national averages, and the percentage of adults classified as overweight or obese is slightly higher than regional and national averages. The proportion of people within KL&WN who are considered disabled under the equality act is significantly lower than the national average (17.7%) at 7.7%. In terms of health deprivation, KL&WN is ranked 63rd out of 151 upper tier authorities nationally in the Health Deprivation and Disability Domain of IMD 2019. By protecting and enhancing green infrastructure and the public realm, visitors and residents may be encouraged to spend more time outdoors and utilise active transport networks, increasing walking and cycling within the KL&WN area. Encouraging active travel and spending more time outdoors may contribute to improving physical activity rates and preventing social isolation, therefore improving health. However, the exact measures to be implemented are currently not known. Additionally, improving noise and air quality as a result of encouraging a modal shift away from private vehicle usage will also improve physical health, particularly for children, the elderly, pregnant women and those with respiratory conditions exacerbated by poor air quality. Overall, a significant positive effect has been assessed against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to human health for the reasons
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SEA Objective	Policy	Alternatives	Description of effects
			outlined above, but likely at a lesser scale than with the policy, and as such as minor positive score has been identified.
Economy & Employment	+	0	KL&WN is home to world-leading businesses in various sectors and is a centre of excellence for the design and manufacture of commercial refrigeration. In 2021, 57.7% of the population of KL&WN were of working age (between 16-64 years) which is lower than both the regional and UK averages. However, KL&WN has a lower economic inactivity rate of 16.6%, compared to 19.4% in the region and 21.2% in the UK. There are approximately 62,000 jobs in West Norfolk, of which 55% of these jobs are located in King's Lynn, acting as the principal economic driver for the borough. Developments to the public realm are likely to improve the town centres within King's Lynn. This may encourage residents, visitors, and tourists to these areas, boosting local economies. The TS outlines a number of opportunities to develop efficient transport infrastructure to allow sustained growth in the area, future proofing the transport network for future generations. Development schemes incorporating retail, leisure, culture, entertainment, community, professional services and industrial operations will enable the area to achieve economic potential. Overall, a minor positive effect has been assessed against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to economy and employment, but likely at a lesser scale than with the policy, and as such a neutral score has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Community Safety	+	0	On average, 53.3 people (per 100,000 resident population) are killed or seriously injured on the borough's roads each year, higher than both regional and national averages. In Norfolk, 56.6% of all casualties in 2022 were male and 27.8% of casualties were aged between 17 to 29 years old. Just 11.5% of all casualties were aged over 70. In terms of crime, the borough's average crime rate is approximately 6,706 incidents per 100,000 population. Between 2011 and 2021, incidents on average grew by 6.1% per year. The overall crime rate in the town of King's Lynn was 117 crimes per 1,000 people, significantly higher than both the Norfolk and East of England averages. However, levels of crime deprivation are relatively low in KL&WN, ranking 252 out of 317 local authorities within the UK. By protecting and enhancing green infrastructure and the public realm, visitors and residents may have increased feelings of safety. Additionally, utilising a 'health streets approach' to make streets more attractive may improve feelings of safety along routes, however the exact measures are not currently known. This has been assessed as having a minor positive effect against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to community safety, but likely at a lesser scale than with the policy, and as such a neutral score has been identified.

Biodiversity & Natural Capital	++/-	+/-	There are a large range of nationally and locally designated sites within the borough of KL&WN, including 29 Sites of Special Scientific Interest (SSSI) and 5 National Nature Reserves (NNR). There are also numerous internationally designated sites within KL&WN, including Ramsar sites, Special Area of Conservation (SAC) and Special Protection Areas (SPA). There are 56 habitats recognised as being of 'principal importance' for the conservation of biological diversity in England. Additionally, out of the 141.8k ha comprising KL&WN, 76.7% of the land cover is agriculture. Green infrastructure plays a key role in creating and connecting habitats and supporting local biodiversity. By improving green infrastructure and enhancing the public realm, it is anticipated to result in significant positive effects on biodiversity and natural capital due to preventing of fragmentation of habitats and promoting ecological networks. Policy 10 is unlikely to cause damage to locally and nationally designated sites, instead improving green infrastructure and the public realm which will likely result in improved biodiversity. However, the exact measures to be implemented are uncertain. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to contribute to positive effects somewhat. Overall, a significant positive effect has been assessed against this SEA Objective. However this is anticipated to require some construction which may result in negative effects on biodiversity through disturbance and increased noise and air pollution. The scale and nature of this is likely to be determined by individual scheme design and location and it is assumed that, in line with national and local planning policy and legislative requirements, any proposals would seek to avoid and minimise biodiversity impacts and provide enhancements where possible, resulting in an equal and opposite positive effect. The UK Government also has a target to halt biodiversity loss by 2030 and to increase abundance, which is anticipated to mitigate negative effects
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SEA Objective	Policy	Alternatives	Description of effects
			somewhat. Overall, a minor negative effect has been assessed against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to biodiversity and natural capital for the reasons outlined above, but likely at a lesser scale than with the policy, and as such a mixed score has been identified.

Landscape, Seascape & Townscape	++/-	+/-	There is one designated National Landscape, Norfolk Coast, in the KL&WN area. Designated for its landscape, seascape and settlement character, alongside its geomorphology, biodiversity, geology, and heritage. The area also sits within five National Character Areas, reflecting the diversity of landscape features within KL&WN. Enhancements to the public realm may improve the quality and condition of townscape and landscape across the KL&WN area and provide opportunities to further incorporate green infrastructure into design. This is anticipated to result in a major positive effect on this SEA Objective as the policy aims to directly improve the quality of the landscape and townscape, although the location and detail of infrastructure is unknown. Construction works could however result in temporary adverse effects on landscape and townscape character and quality, and visual amenity. Negative effects could be significant if they are to impact the Norfolk Coast National Landscape, however we assume that appropriate mitigation will be applied in line with relevant policy, to minimise impacts on designated landscapes. Due to this, a minor negative effect has been assessed against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to landscape, seascape, and townscape for the reasons outlined above, but likely at a lesser scale than with the policy, and as such a mixed score has been identified
Historic Environment	++/-	+/-	The KL&WN area contains numerous designated and non-designated historic and cultural assets; including 129 Scheduled Monuments, 1,546 Listed Buildings, six Registered Parks and Gardens, 48 Conservation Areas, and one National

		Landscape. The area contains 25 heritage assets currently listed on the Heritage at Risk Register. Enhancements to the public realm will likely work to conserve and enhance the setting of heritage assets and wider historic environment, as well as improve its quality and condition. Enhancement of infrastructure will provide opportunities to incorporate sustainable design for the public realm, whilst maintaining local character and sense of place across townscapes, landscapes and seascapes. Depending on the scale of works, there is potential for a significant positive effect on this SEA Objective. Construction associated with new infrastructure may have negative impacts on designated historic assets, through potential damage, restricted access, impacts on visual amenity and noise and air pollution. Though some of these impacts may be temporary, there is potential for permanent negative impacts on heritage assets. Excavation associated with construction may also impact non-designated and unknown heritage assets which could be damaged during construction though it is anticipated that works will predominantly take place around existing infrastructure. As the location of construction works is unknown, it has been concluded that there would be a minor negative effect against this SEA Objective for Policy 10, taking a precautionary approach. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver some benefits to the historic environment for the reasons outlined above, but likely at a lesser scale than with the policy, and as such a mixed score has been identified
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Water Environment	+/-	0	The KL&WN area is underlain by two Principal Aquifers, with the Chalk aquifer being the major aquifer of southern and eastern England. Of the monitored waterbodies in the area, just 10% are achieving good ecological status, with 74% achieving moderate and 15% achieving poor status, and all failed based on their chemical status, in relation to WFD targets. Protecting green infrastructure and enhancing the public realm is likely to lead to greater extent of green infrastructure and sustainable design, including SuDS, across KL&WN. This could reduce the risk of flooding, through improved drainage, reducing discharge from roads and surface water flooding. This is likely to have a positive effect on this SEA Objective. Although the location and detail of design of infrastructure is unknown, this is scored as a minor positive effect. As works will likely take place in the footprint of existing infrastructure, it is not anticipated that there would be any land take or additional impermeable surface, reducing resilience to the impacts of climate change. Construction works could lead to pollution of the water environment including aquifers, rivers and streams, through noise, dust, and surface runoff entering waterbodies leading to a reduction in quality. These effects are mitigable through best practice construction measures, but there is concluded to be a residual minor negative effect due to the remaining potential for pollution. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which is unlikely to deliver benefits to the water environment, and as such a neutral score has been identified.
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Air Quality	+/-	0	The KL&WN area has lower levels of air pollution than the UK overall. The borough does not exceed the targets of the Air Quality Objective for either PM10 or PM2.5, though there are two AQMA's in the borough. Both AQMAs are in King's Lynn, and have been designated for exceedances of nitrogen dioxide. Protecting green infrastructure and enhancing the public realm is likely to lead to greater extent of green infrastructure and sustainable design which could work to improve air quality. Improvements to the public realm could work to reduce congestion through promotion of cycling and walking as part of the healthy streets approach, leading to a further improvement in air quality through a reduction in air pollution due to more efficient driving. Positive effects could be significant if implementation of Policy 10 causes improvements in air quality within AQMAs. As the scale and location of works is not known, a minor positive effect against has been assessed against this SEA Objective. Implementation of the Policy could lead to temporary reductions in air quality during construction, caused by dust and particulate matter, as well as increased localised traffic resulting in increased emissions. This could lead to negative effects on air quality. Reductions in air quality during construction that occur in or near an AQMA could lead to significant negative effects on this SEA Objective. Potential negative effects on this SEA Objective should be mitigable with best practice construction measures, such as implementation of a CTMP and CEMP, during construction. Therefore, overall, minor negative effects have been assessed against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and
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SEA Objective	Policy	Alternatives	Description of effects
			cultural activity, which is unlikely to deliver benefits to air quality, and as such a neutral score has been identified.

Climate Change & Greenhouse Gases	+/-	0	In 2020, KL&WN's total emissions were 2,183.7 ktCO₂e, or 14.4 tCO₂e per capita. KL&WN have higher levels of carbon emissions per capita than both the regional and national figures, with urban areas and key transport corridors having the greatest contribution. Protecting green infrastructure and enhancing the public realm could provide opportunities to promote low carbon and energy efficient design. This would support the council's net zero ambitions. Greater use of sustainable design could result in lower greenhouse gas emissions and a positive effect on this SEA Objective. Depending on the materials used, there is also an opportunity to reduce embodied carbon during construction. Although details on materials are not known, this has been scored as a minor positive effect. Enhancements to the public realm could improve the flow of traffic, reducing congestion through promotion of cycling and walking as part of the healthy streets approach, and improving air quality through a reduction in greenhouse gas emissions due to more efficient driving and lower use of private vehicles. This is anticipated to have a minor positive effect against this SEA Objective. Enhancements to the public realm and protection of green infrastructure also bring opportunity to implement green infrastructure & SuDS. This will help to further increase climate change resilience through increasing resilience to flooding, as well as CO₂ drawdown, though the extent of this is dependent on the extent and type of vegetation used. There may be minor negative effects against this SEA Objective associated with increased vehicle emissions during construction and embodied carbon of materials, if low carbon vehicles and materials are not utilised. Although details on materials and vehicles are not known, a minor negative effect has been assessed against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead
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SEA Objective	Policy	Alternatives	Description of effects
			taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which is unlikely to deliver benefits to climate change and greenhouse gases, and as such a neutral score has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Noise	+/-	0	There are a number of NIAs within the KL&WN borough, concentrated in and around town centres and along major roads. Protecting green infrastructure and enhancing the public realm could provide opportunities to reduce noise through promotion of cycling and walking as part of the healthy streets approach, leading to lower congestion. If planned and located appropriately, this could reduce traffic noise in NIAs, resulting in positive effects. As the location of infrastructure is not known, this has been scored as a minor positive uncertain effect. Construction associated with enhancements to the public realm will lead to increased levels of noise through additional traffic and use of machinery. Though this will be temporary, it will lead to negative effects. Construction effects should be mitigable through implementation of best practice measures, such as a CTMP and CEMP. Overall, this has been assessed as a minor negative effect against this SEA Objective. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which is unlikely to deliver benefits to noise, and as such a neutral score has been identified.

SEA Objective	Policy	Alternatives	Description of effects
Material Assets	+	0	The KL&WN borough is underlain by Principal Aquifers. Much of its agricultural land is rated good to moderate quality, with much of the east being urban or non-agricultural. The area contains 4,102 renewable energy sites and three landfill sites. There are a number of opportunities provided by implementation of Policy 10 that could result in positive effects against this SEA Objective. Protecting green infrastructure and enhancing the public realm could encourage use of sustainable materials during construction and the reuse of existing infrastructure, improving resource efficiency and supporting a circular economy. Promotion of the Healthy Streets approach could also reduce reliance on private cars, reducing resource use. Although the location of infrastructure and details of materials to be used are not known, this has been scored as a minor positive effect, due to the anticipated scale of the option. It is not anticipated that the reasonable alternative would involve any work with partners to protect existing green infrastructure or enhance the public realm, instead taking a 'business as usual' approach. The Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which is unlikely to deliver benefits to material assets, and as such a neutral score has been identified.

Summary of Effects



Overall, for all the majority of SEA Objectives, positive effects have been identified with the majority also having negative effects, and a substantial number of objectives identifying uncertainties. Uncertainties associated with Policy 10 are primarily around the unknown scale and scope of construction and new infrastructure.

Significant positive effects have been identified for the following SEA objectives: Human Health, Biodiversity and Natural Capital, Landscape, Seascape & Townscape, and Historic Environment. These significant positive effects are largely due to the positive outcomes seen from delivering enhancements to the public realm, e.g. reductions in air and noise pollution, and benefits of improved green infrastructure on biodiversity.

No significant negative effects have been identified for Policy 10, though a range of minor negative effects have been identified. These negative effects are largely due to the impacts of construction of new infrastructure and associated pollution.

The reasonable alternative identified for Policy 10 is to only fulfil the council's statutory role to not damage structures and not to enhance them. This would result in no proactive action to support culture, heritage and tourism. However, the Culture and Heritage Strategy for King's Lynn and BCKL&WN King's Lynn Public Realm Action Plan include aims to enhance the public realm where appropriate and to conserve and enhance heritage and cultural activity, which may deliver both minor positive and minor negative effects as outlined above.



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