



**LANCASHIRE**

COMBINED COUNTY  
AUTHORITY

# Lancashire Local Transport Plan: Implementation Plan

Integrated Sustainability Appraisal

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## Executive Summary

This Integrated Sustainability Appraisal (ISA) accompanies the Lancashire Local Transport Plan (LTP) Implementation Plan (IP), which sets out short-term delivery priorities under the strategic framework of LTP. The IP translates long-term ambitions into a practical programme of schemes for the next four years (2026-2030).

The ISA fulfils statutory requirements under the Strategic Environmental Assessment (SEA) Regulations and incorporates Health Impact Assessment (HIA), Equality Impact Assessment (EqIA), Rural Needs Assessment, and Carbon/Climate appraisal. Its purpose is to ensure that environmental, social, and economic considerations are embedded in decision-making and that potential adverse effects are identified and mitigated.

### Key Findings

- The IP delivers significant socio-economic benefits, improving connectivity, supporting economic growth, and promoting health and equality. Active travel schemes, integrated transport hubs, and measures to address transport-related social exclusion (TRSE) are central to these outcomes.
- It is expected that there are some environmental risks, with slight adverse effects predicted for biodiversity, carbon emissions, landscape, soil, and resource use, and uncertainties for climate adaptation, cultural heritage, and water environment.
- The expected cumulative impacts are mixed. It is expected that active travel and Electrical Vehicle infrastructure offer some synergistic benefits, however, these gains may be offset by emissions and habitat loss from highway schemes if not managed through integrated planning.
- It is expected that mitigation measures, such as biodiversity net gain, whole-life carbon assessments, sustainable drainage systems (SuDS), and heritage-sensitive design, should be effective in reducing most adverse and uncertain effects to neutral or beneficial outcomes.
- Monitoring and adaptive management would be critical to address residual uncertainties and ensure sustainability objectives are achieved.

Overall, the ISA confirms that the IP aligns with Lancashire's strategic vision and statutory obligations, delivering strong socio-economic benefits while managing environmental risks through targeted mitigation and monitoring.

The Sustainability Scorecard shows that the IP performs strongly overall, with clear benefits for health and wellbeing, equality, rural access and economic growth. Environmental performance is more mixed: carbon and air quality outcomes are positive, while risks to biodiversity, landscape, heritage, soils and the water environment remain for a small number of higher-risk schemes. These risks are manageable through the strengthened mitigation and design commitments set out in the ISA, including biodiversity net gain, heritage-sensitive design, catchment-based SuDS and robust

construction management. Overall, the Scorecard demonstrates that with these measures applied, the IP can deliver a balanced and positive sustainability outcome.

**Table 1: Sustainability scorecard**

Sustainability theme	Overall performance	Direction of impact (Plan-level)	Residual Risk after mitigation	Confidence level
Biodiversity and nature recovery	Mixed	Neutral to slight beneficial	Moderate	Medium
Designated sites	Neutral	Neutral	Low-moderate	Medium to High
Air Quality	Positive	Slight to moderate beneficial	Low	Medium to High
Noise	Mixed	Neutral	Low-moderate	Medium
Carbon emissions	Positive	Beneficial	Low-moderate	Medium
Climate adaptation and resilience	Uncertain to slight beneficial	Neutral	Moderate	Medium
Cultural Heritage	Uncertain	Neutral to slight adverse	Moderate to High	Medium
Landscape and Townscape	Mixed / Slight adverse	Neutral to slight adverse	Moderate to High	Medium
Soils	Mixed	Neutral	Moderate	Medium
Water Environment	Uncertain / Slight adverse	Neutral	Moderate	medium
Resource use and waste	Slight adverse	Neutral	Low-Moderate	High
Economic Growth	Strongly positive	Moderate beneficial	Low	High
Land Use / Energy Coordination	Strongly positive	Moderate beneficial	Low	High
Health and wellbeing	Strongly positive	Moderate beneficial	Low	High
Equality of opportunity	Strongly positive	Moderate beneficial	Low	High
Rural Connectivity	Slight positive	Slight to moderate beneficial	Low	Medium-High

## Next Steps

The draft IP and ISA will undergo formal consultation with statutory bodies and the public. The feedback will inform the final IP and an ISA Post-Adoption Statement. The ISA Post

adoption Statement will summarise how sustainability considerations and consultation responses have shaped outcomes. It is recommended that mitigation measures should be embedded in scheme design and delivery, supported by a robust monitoring framework and scheme-level key performance indicators (KPIs). Future project-level assessments would be undertaken where significant or uncertain impacts remain.

# 1 Introduction

## Context

The Local Transport Implementation Plan (IP) will be delivered under the new devolution arrangements established through the Lancashire Combined County Authority (LCCA). The ambition is to build a Lancashire that works for everyone, creating a transport system that connects opportunity with need and offers safe, inclusive, affordable, and low-carbon travel choices.

The LTP recognises the diversity of the region, with distinct challenges across towns, cities, and rural areas. The LTP vision is to deliver:

- A stronger economy
- Fairer opportunities
- A sustainable future

This Integrated Sustainability Appraisal (ISA) focuses on the IP. While the LTP Core Strategy sets out the LCCA's long-term strategic vision and policy framework for transport, the IP translates this into a short-term delivery programme. It identifies the specific schemes and interventions to be progressed over a four year period (2026 – 2030), providing a practical route to achieving the strategic objectives. This ISA builds on the assessment work undertaken for Core Strategy (as part of its own ISA), ensuring that the environmental and sustainability implications of newly introduced schemes are appropriately considered in line with statutory requirements and best practice.

## Purpose of this Document

This ISA is being undertaken alongside the IP to assess schemes being proposed, recommend mitigation and monitoring.

The ISA incorporates several assessment processes including:

- Strategic Environmental Assessment (SEA);
- Health Impact Assessment (HIA);
- Equality Impact Assessment (EqIA);
- Rural Needs Assessment;
- Climate and Carbon Assessment; and
- Habitats Regulations Assessment (HRA) (although this is reported separately).

When preparing an LTP, it is a statutory requirement to conduct an Environmental Strategic Environmental Assessment Directive and the Environmental Assessment of Plans and Programmes Regulations 2004 (herein referred to as the SEA Regulations). Strategic Environmental Assessment (SEA) are mandatory for plans and programs:

- which are preferred for agriculture, forestry, energy, industry, **transport**, waste management, water management, telecommunications, tourism, town and

country planning or land use and which sets the framework for future development consent for projects listed in Annex I and II of the Environmental Impacts Assessment Directive (85/337/EEC); and

- which in view of the likely effects on sites, have been determined to require an assessment pursuant to Article 6 or 7 of the Habitats Directive.

As the LTP and IP are statutory plans prepared for the transport sector, that set the framework for future development consent and are likely to have significant environmental effects (as per Regulation 5 of the SEA Regulations), the assessments outlined have been incorporated into this ISA.

A SEA, built in with a sustainability assessment (SA), was previously undertaken for the Core Strategy ISA, ensuring that overarching policies and proposals were assessed for their environmental implications. However, the IP introduces schemes that were not previously addressed under the original ISA and SEA requirements. As a result, this ISA has been prepared, to be read in conjunction with the Core Strategy ISA.

This ISA is structured as follows:

- Summary of Core Strategy ISA findings
- Legislative requirements
- Scope of the ISA
- Methodology
- Baseline information
- Assessment of the IP
- Mitigation and recommendations
- Monitoring
- Conclusion

There are several appendices as part of this ISA as follows:

- Appendix A: Scoping response and comments
- Appendix B: Baseline Maps
- Appendix C: Integrated Assessments
- Appendix D: Carbon Assessment
- Appendix E: Actions for Scheme Delivery and Design

## 2 Summary of the Core Strategy ISA findings

### Introduction

The Core Strategy ISA assessed the sustainability of the LTP in terms of overarching environmental, social, and economic topics.

It was concluded that the LTP vision and goals were broadly compatible with the Core Strategy ISA objectives, particularly in promoting economic growth, improving health and wellbeing, and supporting environmental protection. However, there were some uncertainties in terms of the environmental impacts of future infrastructure projects, such as effects on biodiversity, air quality, heritage, and climate resilience.

The Core Strategy ISA identified that while many goals align well with objectives on equality, accessibility, and economic opportunity, the extent of positive or negative impacts would depend on how the LTP is implemented.

The Core Strategy ISA key sustainability issues included:

- High car dependency and transport-related emissions
- Health inequalities and limited access to services
- Risks to biodiversity, landscapes, and heritage from infrastructure development
- The need for climate adaptation and flood resilience; and
- Challenges in rural connectivity and social exclusion.

The Core Strategy ISA recommended that the Implementation Plan should:

- Apply the existing ISA Objectives to specific schemes
- Address uncertainties through detailed assessment and mitigation
- Strengthen monitoring and adaptive management; and
- Ensure rural-proofing and equitable access across all communities.

### Relationship to the Core Strategy ISA

The LTP ISA established a comprehensive sustainability framework, including SEA, HIA, EqIA, Carbon and HRA components. This ISA draws directly from LTP objectives, using them as the basis for assessing scheme-level impacts. No new sustainability objectives have been developed; instead, the existing framework has been applied to relevant schemes.

**Table 2: Process of the SEA and Implementation Plan relationship**

Implementation Plan	SEA	SEA Stage
Determining the scope of the Implementation Plan	Determining the context of the ISA in terms of its relation to LTP data.	Stage A
Prioritising the list of schemes in terms of short,	Assessing the overall effects of the preferred schemes. Proposing	Stage B

medium and long-term schemes	mitigation / enhancement measures and monitoring	
Production of the draft Implementation Plan	Production of the Environmental Report (ISA)	<b>Stage C and D (the current stage)</b>
Consultation on the draft Implementation Plan	Consultation on the Environmental Report (ISA)	
Production of the final Implementation Plan	Production of the final the Environmental Report (ISA)	
Application of LTP and Implementation Plan	SEA statement	
Reviewing Implementation of LTP and Implementation Plan	Monitoring the significant effects of the LTP and Implementation Plan	
		Stage E

## 3 Legislative Requirements

### Strategic Environmental Assessment Requirements

The Transport Act 2000 established a Local Transport Authority (LTA) statutory duty to prepare LTPs, and to do so *'with respect to mitigation of, or adaption to, climate change or otherwise with respect to the protection or improvement of the environment'*.

The requirement to undertake a Strategic Environmental Assessment (SEA) for LTPs arises from the Environmental Assessment of Plans and Programmes Regulations 2004 (commonly referred to as the SEA regulations) which implements the EU SEA Directive (2001/42/EC).

As LTPs typically meet the SEA regulations criteria, SEA is a mandatory requirement, due to LTP and IPs being statutory documents prepared for the transport sector, setting the future development consent framework and being likely to have significant environmental effects (as per Regulation 5 of the SEA Regulations).

In accordance with SEA Regulations 2004, this ISA is structured to ensure a robust and transparent SEA. This ISA follows the SEA process' key stages:

- Identify Likely Significant Environmental Effects: The appraisal assess the proposed schemes' overall potential environmental impacts, both positive and negative, as well as a general consideration to the IP.
- Consider Reasonable Alternatives: Where applicable, the ISA evaluates alternative approaches in delivering the IP, in line with the SEA requirement to assess reasonable alternatives.
- Propose Mitigation Measures: For any identified adverse effects, the ISA recommends appropriate mitigation strategies.
- Include a Monitoring Framework: A monitoring plan is to be developed to track the LTP's implementation and mitigation measure effectiveness and would help ensure that unforeseen effects are identified and addressed during the plan's delivery.

### Sustainability Appraisal

Although a Sustainability Appraisal (SA) is not a statutory LTP requirement, it was undertaken as part of the Core Strategy ISA process to ensure a balanced consideration of environmental, social, and economic factors. This ISA follows the same principles and builds upon the existing evidence base and methodology. By maintaining consistency with the previous SA approach, this ISA continues to support informed decision-making and demonstrate how sustainability considerations are embedded throughout the LTP and its implementation processes.

## Habitats Regulations Assessment Requirements

A Habitats Regulations Assessment (HRA) was undertaken for the Core Strategy in accordance with the Conservation of Habitats and Species Regulation 2017 (as amended). The assessment included both Stage 1 Screening and Stage 2 Appropriate Assessment. The assessment concluded that while likely significant effects could not be ruled out at certain European sites, the Appropriate Assessment determined that, with the application of strategic mitigation and control measures, the LTP would not adversely affect any designated site's integrity. The designated sites, including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites that have been identified and listed in the Core Strategy HRA are included in Appendix 1.

As the IP introduces schemes and programmes, this ISA considers the need for HRA, ensuring that any potential effects on European sites are identified and addressed in line with the precautionary principle and relevant legislation. The HRA also considers potential impacts on functionally linked land (FLL) supporting qualifying bird species associated with SPA and Ramsar sites. This has been reported separately.

## Health Impact Assessment

Although a Health Impact Assessment (HIA) is not a statutory LTP requirement, one was undertaken as part of the Core Strategy ISA to support efforts to improve public health and address health inequalities. The assessment recognised that transport policies and proposals can influence key health determinants such as air quality, noise, access to services, employment, education and amenities and infrastructure design. The HIA ensured that potential health impacts were considered in line with the National Planning Policy Framework (NPPF) and good practice guidance.

For this ISA, each scheme is scored against the HIA sub-objectives, and an overall HIA objective score is provided to summarise the likely health impacts.

## Equality Impact Assessment

An Equality Impact Assessment (EqIA) was undertaken as part of the Core Strategy ISA to fulfil statutory duties under the Equality Act 2010 and the Public Sector Equality Duty. That assessment considered the LTP's potential impacts on individuals and communities, particularly those with protected characteristics (i.e., Age, Disability, Sex, Gender Reassignment, Marriage and Civil Partnership, Pregnancy and Maternity, Race, Religion or Belief, and Sexual Orientation), and aimed to ensure the plan did not discriminate and actively promoted equality. For this ISA, each scheme is scored against the EqIA sub-objectives, and an overall EqIA objective score is provided to summarise the likely equality impacts.

## Rural Needs Assessment

This ISA would also incorporate a rural proofing approach, building on the principles established in the previous appraisal for the core strategy. Although not a legal requirement, rural proofing is considered good practice, ensuring that rural communities'

needs are properly considered in policy and plan-making (as per Defra Rural Proofing Framework). The overall rural need's objective and its sub-objectives are applied to each scheme and summarised within the appraisal.

## Carbon / Climate Assessment

The Core Strategy ISA provided a strategic carbon assessment overview, focusing on transport planning's broader emissions implications using Department for Transport (DfT) guidance data.

As part of this ISA a standalone section provides a strategic overview of carbon and climate implications, aligned with ISA objectives on lowering carbon emissions and resilience. National and local policy drivers inform the approach of this section. An overall effect is considered alongside cumulative effects and trade-offs. Recommendations focus on enhancing carbon benefits and identifying schemes needing further project-level appraisal.

## Reporting and Consultation

SEA Regulations outline key consultation requirements which identify three organisations (in England) to act as statutory consultation authorities in the SEA process: Environment Agency (EA), Natural England (NE) and Historic England (HE).

There are two consultation periods to be undertaken involving the statutory consultation authorities and, in the latter period, the public are also to be consulted.

The consultation periods relate to:

- **Scoping:** A scoping exercise was undertaken for this ISA. The scoping report for this ISA was sent to each consultation authority so that they may form a view on the scope, level of detail and appropriate consultation period of the Environmental Report (i.e. this ISA). The consultation authorities are required to give their views within five weeks. This took place between 10 November and 15 December 2025. Further information can be found in Appendix A, and;
- **The Environmental Report:** The responsible authority is required to invite the consultation authorities and the public to express their opinions on the Environmental Report and the plan or programme to which it relates. This would be undertaken in the public consultation on the IP in May-2026.

The responses from the IP ISA Scoping Report consultation have been used to inform the ISA and have helped refine this ISA. Please see Appendix A for further details.

Key reporting requirements are those set by the SEA Directive and SEA Regulations: *“An Environmental Report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated”*.

As already indicated, the SEA Report has been integrated into this ISA Report. Table 3 demonstrates where the SEA regulations have been met.

**Table 3: SEA Regulations and the ISA**

Information to be included in the Environmental report under the SEA regulations (Regulation 12 and Schedule 2)		Where it is covered in the ISA
1	An outline of the contents, main objectives of the plan, and of its relationship with other relevant plans and programmes	Sections 1-8
2	The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan	Section 4 and 6
3	The environmental characteristics of areas likely to be significantly affected	Section 7
4	Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Section 7 and HRA
5	The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan and the way those objectives and any environmental considerations have been considered during its preparation	Section 7 and HRA
6	The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage including architectural and archaeological heritage; landscape; the interrelationship between the above factors	Section 7 and 8
7	The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan	Section 9
8	An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Section 7

9	A description of measures envisaged concerning monitoring in accordance with Regulation 17	Section 10
10	A non-technical summary of the information provided under paragraphs 1 to 9	NTS

## 4 Scope of the ISA

### Geographical and Temporal Scope

#### *Spatial Scope*

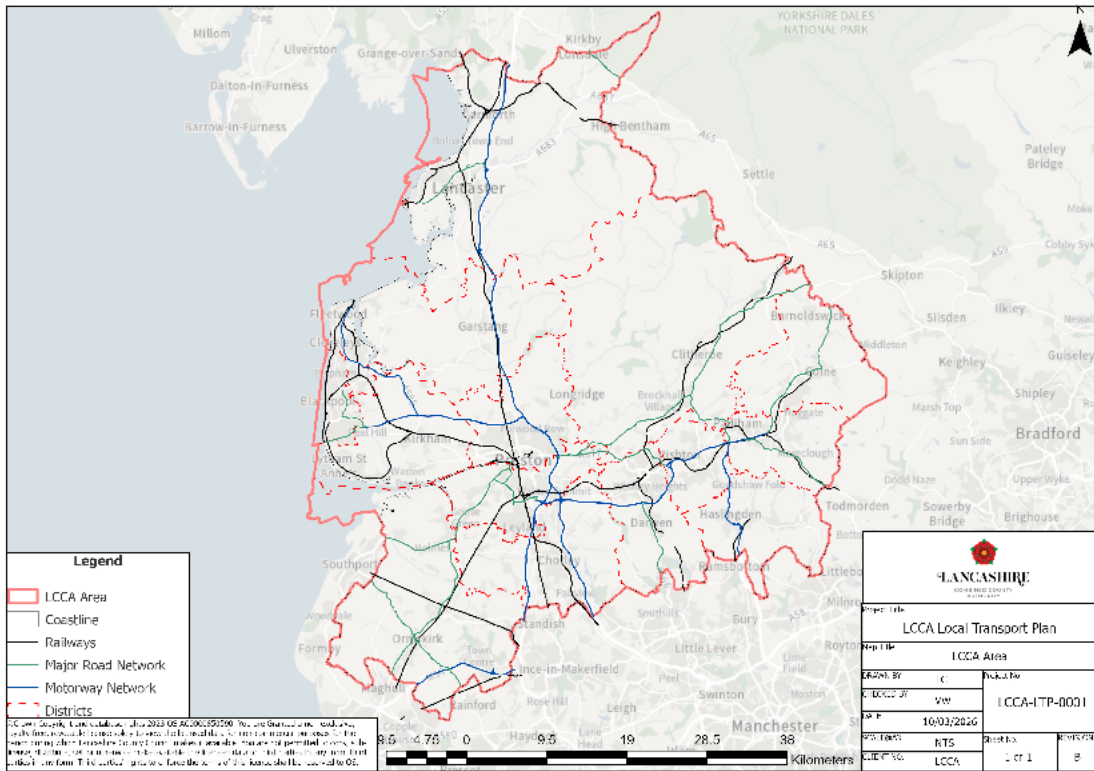
As per the Core Strategy ISA, this ISA covers the same plan area. The plan area covers the Lancashire Combined County Authority (LCCA) Area. Currently, it is made up of Lancashire County Council, Blackburn with Darwen Borough Council and Blackpool Council. Within Lancashire County Council there are currently 12 local authorities as follows:

- Burnley Borough Council
- Chorley Borough Council
- Fylde Borough Council
- Hyndburn Borough Council
- Lancaster City Council
- Pendle Borough Council
- Preston City Council
- Ribble Valley Borough Council
- Rossendale Borough Council
- South Ribble Borough Council
- West Lancashire Borough Council
- Wyre Borough Council

The IP may have effects on areas outside of the plan area including:

- Westmorland and Furness Council
- North Yorkshire County Council
- Bolton Metropolitan Borough Council
- Bury Metropolitan Borough Council
- Rochdale Borough Council
- Wigan Metropolitan Borough Council
- Knowsley Metropolitan Borough Council
- St. Helens Borough Council
- Sefton Metropolitan Borough Council
- Bradford Metropolitan Borough Council
- Calderdale Metropolitan Borough Council

**Figure 1: LCCA Plan Area**



### **Temporal Scope**

Temporal scope means the assessment’s time-period. For this IP ISA, it includes:

- The years the plan would be active (2026 to 2030 for the IP).
- It also considers how the plan’s effects might last beyond its delivery period or combine with other plans over time.

### **Technical Scope**

Within the SEA Directive, the term environment does not only refer to the natural and historic environment, but also to effects such as human health, population and material assets.

SEA regulations list environmental topics to be considered as follows:

- biodiversity
- flora and fauna
- population
- human health
- soil
- water
- air
- climatic factors

- material assets
- cultural heritage including architectural and archaeological heritage
- landscape
- and the interrelationship between the above factors.

## 5 Methodology

This section explains the overall approach used to carry out the ISA, following the key stages of SEA. It provides a brief overview of how the assessment was structured to support the development of the plan and acts as a supplementary assessment to be read alongside the Core Strategy ISA.

### **Stage A: Setting the context and updating the baseline**

The Core Strategy ISA (2025) established a comprehensive strategic context and baseline for environmental, social and economic conditions across LCCA area. As the IP introduces a defined programme of physical schemes that were not previously assessed, this ISA provides a targeted update to that baseline.

Rather than reproducing the detailed evidence already captured in the LTP, this ISA focuses on new information published since the drafting of the Core Strategy ISA and spatial sensitivities specifically relevant to the locations and characteristics of IP schemes.

Updates therefore concentrate on:

- revised flood risk and surface water mapping; and
- new national policy (including SuDS standards and carbon budget delivery requirements); and
- the introduction of new evidence such as Transport-Related Social Exclusion (TRSE) mapping.

This ISA also went through a scoping exercise which detailed what was to be included within this report. Details of this exercise can be found in Appendix A.

Some baseline maps can be found in Appendix B for further information.

### **Stage B: Assessing the effects of the IP**

Schemes were assessed against the established ISA objectives (Table 4) to identify potential positive or negative impacts across a range of sustainability topics, using the scoring system set out in Table 5.

Where schemes are minor in scale (such as routine maintenance or upgrades), have already been assessed under previous plans or programmes, or are unlikely to result in significant effects, these have been excluded from further appraisal.

Following the individual assessments, each investment programme is reviewed in terms of the overall environmental, economic and social impacts. Furthermore, the overall pattern of scores are reviewed to consider the cumulative 'whole plan effect'. This helps to identify dominant trends and highlight areas where mitigation or enhancement may be required.

**Table 4: Core Strategy ISA objectives**

<b>Environmental</b>	
1	Protect and enhance biodiversity, promote ecosystem resilience and functionality and contribute to the achievement of Biodiversity Net Gain and the delivery of the Nature Recovery Network
2	Protect and enhance sites designated for their international importance for nature conservation purposes
3	Protect and improve air quality
4	Reduce the impact on environmental noise from transportation sources
5	Reduce carbon emissions from transport and contribute to meeting the UKs net zero carbon target
6	Maximise adaptation and resilience of the transport network to the effects of a changing climate, including through reducing the risk of flooding
7	Protect and enhance cultural heritage assets and their settings, and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings
8	Protect and enhance the character and quality of landscapes and townscapes and visual amenity
9	Protect, enhance and promote geodiversity
10	Protect soil resources and avoid land contamination
11	Protect and enhance the water environment
12	Promote sustainable use of resources and natural assets including maximising the use of alternative, secondary and recycled materials, reducing the level of waste generated.
<b>Economic</b>	
13	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all
14	Support the wider coordination of land use and energy planning across the Lancashire area
<b>Social</b>	
15	Improve health and wellbeing for all citizens and reduce inequalities in health (HIA specific objective)
16	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)
<b>Rural</b>	
17	Promote fairness and equity in rural connectivity

**Table 5: Scoring system**

<b>Assessment scale</b>	<b>Assessment category</b>	<b>Significance of effects</b>
+++	Major beneficial	Significant
++	Moderate beneficial	
+	Slight beneficial	Not significant
0	Neutral or no obvious effect	
?	General uncertainty where there is a lack of current evidence or uncertainty	

	surrounding the degree of impact assessed.	
-	Slight adverse	
--	Moderate adverse	Significant
---	Major adverse	

Moderate and major beneficial or adverse effects have been highlighted in colour to make their significance immediately obvious, reflecting the assessment process which treats these levels of impact as significant.

In contrast, effects considered neutral, slightly beneficial, or slightly adverse have been classified as non-significant and therefore left without colour emphasis to reflect their lower level of impact.

In some cases, the effect may be mixed (i.e. 0/+ or +/-) and would be discussed within the scheme assessments.

### **Assessment of Alternatives**

This ISA draws upon the strategic-level SEA undertaken for Core Strategy, which considered reasonable alternatives in line SEA regulations.

As the IP is a short-term delivery plan, the alternatives are tailored to be more operational or scheme-focused and are defined as:

- Alternative A: Maintenance focused approach: Focus on maintaining existing infrastructure and services, with minimal new scheme development. Avoids introducing new interventions beyond essential upgrades or safety improvements
- Alternative B: Deliver the IP as proposed: Deliver the proposed package of schemes

This ISA uses the Core Strategy ISA's assessment scale to compare alternatives, as follows:

**Table 6: Assessment scale to compare alternatives**

Scale	Description
Large Positive	A significantly positive outcome is anticipated
Positive	Minor positive outcome is anticipated
Neutral	This alternative is anticipated to have the same outcome
Negative	Minor adverse outcome is anticipated
Largely negative	A significantly adverse outcome is anticipated

'Alternative C', which proposed prioritising only low-impact schemes or those supporting climate resilience, was considered during scoping but not progressed. While this approach would minimise environmental risks, it would significantly constrain the ability of the IP to deliver its core objectives around connectivity, economic growth, and social inclusion. Many schemes with moderate impacts are essential for addressing congestion, improving safety, and supporting housing and employment growth identified in Local Plans. Excluding these would undermine the strategic alignment with the LTP and wider policy commitments. Instead, the preferred approach integrates robust mitigation and design measures to manage environmental risks while enabling a balanced programme that meets transport, climate, and economic priorities.

Although Alternative C presented lower environmental risk, it was not considered a reasonable alternative due to inadequate delivery of LTP objectives, insufficient support for TRSE areas, and failure to meet statutory equality, health and economic requirements.

### ***Cumulative Impacts***

The SEA Regulations require the ISA to consider proposed schemes combined, synergistic, and indirect effects alongside other relevant plans, programmes, and projects within and beyond Lancashire. This includes assessing spatial and temporal overlaps, such as multiple transport interventions affecting the same environmental receptors or communities. The ISA framework would be applied to identify where cumulative impacts may intensify sustainability issues.

This ISA would review the same plans, programmes, and projects within and beyond LCCA area that were considered in the Core Strategy ISA and address whether there are any updates.

### ***Mitigation***

Mitigation refers to measures aimed at preventing, reducing, or offsetting significant adverse environmental effects identified through the ISA process. For this IP, a range of approaches have been considered to address predicted effects, with additional measures proposed to enhance positive outcomes. The ISA assesses the performance of the IP both with and without mitigation applied, to demonstrate the extent to which proposed measures influence overall sustainability outcomes

### ***Monitoring and Evaluation***

Monitoring would focus on indicators that help establish a link between the IP and any significant effects, whether positive or negative. This ensures that unforeseen adverse effects can be identified and addressed promptly. All monitoring requirements, including indicators, data sources, frequency, and actions to be taken if issues arise, would be set out within the IP report and within this ISA.

## Stage C: Preparing the ISA Report

This report has been prepared to accompany the draft IP and should be read in conjunction with the Core Strategy ISA.

## Stage D and E: Consultation on the IP and ISA

### *Addressing significant changes*

This ISA would be published for formal consultation with the draft IP. The results of the formal public consultation exercise may well result in changes to the draft IP, and these may have implications for the ISA. In addition, the consultation exercise may result in direct changes to the contents of the ISA. These would be reported in the Post Adoption Statement.

### *Post-adoption statement*

Following completion of the public consultation and preparation of final IP, a statement (separate document) would be prepared setting out the following:

- How sustainability considerations have been integrated into the plan, for example any changes to or deletions from the plan in response to the information in the ISA Report.
- How the ISA Report has been considered.
- How the opinions and consultation responses have been considered.
- The summary should be sufficiently detailed to show how the plan was changed to take account of issues raised, or why no changes were made.
- The reasons for choosing the plan as adopted in the light of other reasonable alternatives dealt with.
- The measures that are to be taken to monitor the significant environmental effects of the IP.

## Limitations and Assumptions

This ISA has been undertaken at a strategic level and is based on the information currently available for each scheme. At this stage, many schemes are in early development, meaning detailed design, location-specific data, and construction methodologies are not yet confirmed. As a result, the assessment provides a high-level overview rather than a definitive prediction of impacts. Some effects remain uncertain due to data gaps and reliance on qualitative judgements. Additionally, the screening approach may not fully capture localised or cumulative impacts, and future changes in policy or environmental conditions could influence outcomes. These limitations highlight the need for ongoing assessment and refinement as schemes progress.

## 6 Baseline Information

### Purpose of the Baseline

The Core Strategy ISA (2025) provides a comprehensive strategic baseline for environmental, social and economic conditions across LCCA area. As this IP ISA introduces new physical schemes that were not present in the Core Strategy, the baseline here serves as a targeted update.

This chapter therefore focuses only on:

- New datasets and policy changes since 2025
- Spatial and environmental sensitivities directly relevant to the IP schemes
- Baseline factors that create new or intensified impact pathways

This approach avoids duplication while ensuring the assessment is proportionate, scheme-specific and compliant with SEA Regulations.

Further baseline mapping information can be found in Appendix B.

### Spatial Environmental Baseline

The following baseline themes summarise the key environmental and spatial sensitivities that may interact with IP schemes. They represent additional information needed for assessing physical interventions, rather than restating the full strategic context.

#### ***Biodiversity, Designated Sites and Ecological Networks***

The plan area contains multiple internationally and nationally important habitats. Several IP scheme corridors lie within or near ecological influence zones. The most relevant include:

- Morecambe Bay SPA/SAC/Ramsar and Bowland Fells SPA, with supporting habitat extending inland across the A588 and adjacent corridors
- Ribble & Alt Estuaries SPA/Ramsar, relevant to schemes in Fylde, South Ribble and coastal fringe areas
- Martin Mere SPA/Ramsar, Ribble and Alt Estuaries SPA and Liverpool Bay SPA, intersected by the A570 corridor
- South Pennine Moors SAC/SPA, with sensitivity to works along the A666 and moorland fringe routes
- Nature Recovery Network (NRN) and Local Nature Recovery Strategy (LNRS) priority areas, affecting active travel, PRoW and rural road schemes

#### ***Water Environment, Hydrology and Flood Risk***

The IP schemes interact with several water-environment constraints. Key updates since the Core Strategy include:

- Revised Environment Agency flood mapping (2025), showing expanded Flood Zone 3 areas along the Ribble, Wyre and Lune;
- Updated surface water susceptibility mapping, highlighting vulnerability in coastal towns, older urban fabrics and valley-floor settlements; and,
- New National SuDS Standards (2025), introducing stronger requirements for nature-based drainage, water quality and biodiversity enhancements.

### ***Air Quality and Noise***

Several IP schemes fall within or close to updated Air Quality Management Areas (AQMAs), including:

- Lancaster City Centre and Cable Street;
- Preston AQMA 1 and 3;
- Blackpool Town Centre; and,
- Burnley and Chorley corridor hotspots.

Noise-sensitive receptors include:

- Residential areas along the A6, A59, A666 and A582;
- Communities adjacent to rail lines;
- Conservation Area town centres where public realm or severance reduction schemes are proposed; and,
- Coastal resorts where tranquillity contributes to local character.

### ***Landscape and Townscape***

Landscape sensitivity varies across the plan area but is concentrated in:

- Forest of Bowland National Landscape;
- Arnsdale & Silverdale National Landscape;
- National Character Areas including the Bowland Fringe, West Pennine Moors and Lancashire Valleys.

Major highway improvements, rail reinstatement and mass transit feasibility areas have the greatest potential for landscape change.

Townscape sensitivity is the highest within Conservation Areas where public realm, access and active-travel schemes are planned, including:

- Colne;
- Great Harwood;
- Clitheroe;
- Darwen;
- Lancaster;
- Fleetwood;
- Blackpool; and,

- St Anne's.

### ***Soils, Land Use and Contamination***

Spatial soil and land-use constraints relevant to the IP include:

- Peat and carbon-rich soils close to part of the A666 and upland fringe routes, where disturbance can significantly increase emissions
- Agricultural Land Classification Grades 2 and 3a, particularly in South Ribble, Fylde and West Lancashire, affecting schemes with land take
- Historic industrial land, with potential contamination risks around Preston, Burnley, Accrington and freight corridors

These sensitivities influence construction methodologies, drainage design, carbon assessment and land-take considerations.

### ***Cultural Heritage***

Several IP schemes sit within or near designated heritage assets. Relevant sensitivities include:

- Conservation Areas across key town centres
- Grade I and II\* listed buildings and their settings (e.g. Lancaster, Preston, Colne)
- Historic railway structures along potential reinstatement corridors

### ***Climate, Carbon and Resilience***

Since the Core Strategy ISA, several changes influence baseline climate and resilience conditions:

- The Carbon Budget Delivery Plan (2025) increases expectations for transport decarbonisation
- Electrical Vehicle uptake has risen but remains uneven, particularly between coastal/rural and urban cores
- Climate risks have intensified, with:
  - increased surface water flooding in dense urban centres
  - greater flash-flood risk in upland valleys
  - higher storm-surge exposure along the Fylde Coast

### ***Transport-Related Social Exclusion***

Transport-Related Social Exclusion (TRSE) represents a significant new evidence base not captured in the Core Strategy ISA.

High-risk clusters occur in:

- Fleetwood
- Bacup, Waterfoot and Rossendale Valley

- Great Harwood and Clayton-le-Moors
- Blackpool South and Mereside
- Scaitcliffe (Accrington)

These areas exhibit constrained access to essential services, low car availability, and multiple vulnerability indicators.

### ***Plans and Programmes***

Since the LTP plans and programmes review, several national plans and frameworks have been updated, as follows:

- The Planning and Infrastructure Act introduces Environmental Delivery Plans and new reporting requirements that would influence assessment processes.
- The Transport Decarbonisation Plan remains current, with implementation measures accelerating,
- The NPPF is expected to change in line with these reforms. These updates have been considered in preparing this ISA,

### **Summary of the baseline**

This updated baseline identifies the spatial and environmental receptors most likely to interact with IP schemes. In summary:

- Highest environmental sensitivity exists along the A588, A570, A666, Fylde Coast corridors and upland/peat-rich areas
- Highest townscape sensitivity occurs within Conservation Areas where public realm and access schemes are concentrated
- Highest social vulnerability corresponds to TRSE clusters across coastal towns, inner-urban settlements and isolated rural communities

These updated baselines form the foundation for assessing the likely environmental and social effects of IP schemes in subsequent chapters.

## 7 Assessment of the IP

This chapter sets out the assessment of the IP and its investment programmes. It begins by describing the scheme typologies and associated risk pathways, which underpin a proportionate and consistent assessment approach. The appraisal is presented at the investment-programme level through detailed narrative summaries that capture the likely effects and key considerations associated with different scheme types.

This chapter then presents the reasonable alternatives assessment followed by the programme-level appraisal of the IP. As many schemes remain at an early stage of development, the ISA focuses on the likely significant effects across environmental, social and economic topics, consistent with the requirements of the SEA Regulations.

Finally, the findings of the HIA, EqIA, Rural Needs Assessment, HRA and Carbon and Climate Assessment are integrated alongside the programme-level conclusions, providing a holistic overview of how the IP performs against the ISA framework.

Further HIA, EqIA and Rural Needs Assessment can be found in Appendix C.

### Scheme Typologies and Associated Risks

The IP contains a diverse mix of scheme types, each carrying different levels of potential environmental and social risk. The following typology-level summary identifies where risks are low, moderate or high, and where design uncertainty currently limits assessment confidence.

#### **Low-Risk / Non-Infrastructure Schemes**

These schemes generally do not involve physical works, land-take, or changes to environmental baselines.

**Table 7: Low risk scheme examples**

<b>Scheme Typology</b>	<b>Example Schemes</b>	<b>Key Risk characteristics</b>
Behaviour change / activation	Sustainable travel promotion, safety training, 'Re:Fresh'	No physical impact pathways, primarily policy or engagement-led
Service enhancements	Bus service improvements, Community Transport, Demand Responsive Transport	Potential small modal shift benefits but insignificant construction effects
Digital data	Real-time information, UTMC, Modelling	No land take and therefore negligible environmental impact pathways
Maintenance / asset management	Highway or Tramway maintenance	Short-term localised disturbance but not significant

### **Medium-Risk / Minor Infrastructure Schemes**

These schemes involve small-scale interventions within existing highway, rail, or urban footprints.

**Table 8: Medium-risk scheme examples**

<b>Scheme Typology</b>	<b>Example Schemes</b>	<b>Key Risk characteristics</b>
Interchange and station access improvements	Darwen Access, Access for All, Interchange upgrades	Potential localised heritage/townscape risks and minor resource use
Bus Infrastructure	Bus lanes, junction priorities and Blackpool Coach Station	Construction disturbance, heritage and townscape uncertainty
Minor active travel works	LCWIP delivery, PRow works, Blackpool Road subway upgrades	Temporary construction effects; uncertain ecological risk where routes cross green edges
Road safety and severance reduction	Crossing upgrades, speed management	Minor works only but cumulative public realm change in heritage areas

### **High-risk / Strategic Infrastructure Schemes**

These schemes involve significant physical change, land-take, new structures, or are in environmentally sensitive contexts.

**Table 9: High Risk scheme examples**

<b>Scheme Typology</b>	<b>Example Schemes</b>	<b>Key Risk characteristics</b>
Highway capacity / strategic highway interventions	A6/A584/A588 Corridor, A666, M6/M55/M66 development	Potential biodiversity loss, soil disturbance, water environment impacts, landscape/visual intrusion, carbon increase
Growth-enabling highway and access packages	Botany Bay/Hartwood, North Blackburn SHS, M65 J13 Phase 2	Development-linked emissions, habitat fragmentation, run-off risk, heritage and landscape impacts
Rail reinstatement and new infrastructure	Colne–Skipton, East–West rail upgrades, Restore Your Railway proposals	Sensitive landscapes, designated habitats, flood risk, heritage impacts; high design-stage uncertainty
Freight Infrastructure	East Lancashire Freight Terminal	Land-take, lighting, noise, biodiversity and hydrology disturbance; long-term net

		carbon benefits only if mode shift achieved
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### ***Mixed risk / Transformational Mobility Schemes***

These schemes are at a feasibility-stage, strategically important, and could deliver significant long-term carbon and access benefits but design immaturity introduces risk. Their overall risk is medium-high with uncertainty.

**Table 10: Mixed risk scheme example**

<b>Scheme Typology</b>	<b>Example Schemes</b>	<b>Key Risk characteristics</b>
Electrical Vehicle Infrastructure	Strategic network expansion	Localised construction environmental risk; long-term air quality/carbon benefits

The risk profile across the IP is strongly influenced by scheme typology.

Non-infrastructure and behavioural schemes present negligible environmental risk, while providing important social, health and equality benefits. Minor infrastructure interventions, particularly in urban areas, carry moderate heritage, townscape and resource use risks that could be managed through sensitive design.

The highest environmental risks arise from strategic highway schemes, growth-enabling access interventions, and early-stage rail reinstatement or freight infrastructure proposals. These schemes introduce potential for biodiversity loss, landscape and visual change, impacts on water environment receptors, and increased embodied carbon.

Conversely, these same schemes contribute most strongly to economic growth, regional connectivity, rural access, and levelling-up outcomes.

## **Assessment of Alternatives**

This section considers reasonable alternatives with respect to the IP and its entirety and is in accordance with the SEA regulations. The purpose of Table 11 is to evaluate the likely sustainability effects of each alternative against the ISA objectives, which cover environmental, social, economic, and rural considerations. As previously mentioned, the alternatives assessed are:

- Alternative A: Maintenance-focused approach: Focuses on maintaining existing infrastructure and services, with minimal new scheme development beyond essential upgrades or safety improvements.
- Alternative B: Deliver the IP as proposed: Delivers the proposed package of schemes, including measures to support decarbonisation, active travel, and resilience.

**Table 11: Alternatives Matrix**

ISA Objective	Alternative A	Alternative B	Rationale
1	0	+	Alternative A largely avoids new land take, so it presents limited risk but also no meaningful opportunity for habitat enhancement. Alternative B, however, includes schemes where biodiversity net gain (BNG), green infrastructure, and nature recovery measures can be integrated at design stage, delivering measurable improvements to local ecological networks.
2	+	-	Alternative A provides lower potential for impacts on designated sites due to minimal intervention. Alternative B introduces a risk of disturbance or land-take in sensitive areas, but any such risk would be thoroughly assessed and mitigated through HRA screening, appropriate assessment (if required), and scheme-level safeguards.
3	0	+	Alternative A maintains the 'business as usual', offering no proactive improvements. Alternative B may involve temporary construction emissions but has longer-term benefits through modal shift, EV charging infrastructure, and traffic reduction, improving air quality overall.
4	+	-	Maintenance activity under Alternative A generally results in lower levels of noise due to fewer new construction projects. Alternative B may introduce both construction and operational noise, though impacts are localised, temporary, and manageable through best practice measures.
5	0	++	Alternative A does not support decarbonisation. Alternative B actively contributes to Net Zero objectives through promotion of active travel, EV uptake, and potentially low-carbon materials and construction practices, generating significant carbon savings.
6	+	+	Both alternatives support some resilience to climate change. A does this

			through ongoing maintenance to maintain safe operation of critical assets. B goes further by allowing inclusion of adaptation measures (e.g., drainage upgrades, flood-resilient design), supporting long-term network resilience.
7	+	-	Alternative A minimises the likelihood of affecting heritage assets or settings. Alternative B may intersect with heritage areas, but impacts can be addressed through early archaeological assessment, design refinement, and avoidance where feasible.
8	+	-	A introduces negligible visual change. Alternative B may introduce new structures, lighting, or changes in character; however, sensitive design, screening, and landscape mitigation can reduce effects and, in some instances, enhancements (e.g., improved public realm) may also be achieved.
9	0	-	Alternative A has no significant amenity effects. Alternative B may result in temporary disturbance (noise, dust, construction traffic), but these are localised and mitigable.
10	+	-	Alternative A avoids soil disturbance or land take. Alternative B may result in land take, soil sealing, or risk of contamination, though good site practice and remediation strategies can control impacts.
11	-	-	Both alternatives pose some risks: Alternative A through maintenance run-off, and Alternative B through construction and operational effects (e.g., spills, sediment, drainage impacts). However, both risks could be managed via standard environmental controls.
12	0	+	Alternative A results in minimal change. Alternative B, although does increase resource use, could allow for modern construction practices, circular materials, reclaimed/recycled

			aggregates, and more sustainable procurement, reducing whole-life environmental impact.
13	0	++	Alternative A maintains baseline economic activity but does not stimulate growth. Alternative B enhances connectivity, supports labour mobility, and strengthens access to jobs and services, promoting economic vitality and supporting local regeneration.
14	0	+	Alternative A does not significantly contribute to wider strategic policy goals. Alternative B supports national and local strategies on decarbonisation, accessibility, levelling-up, and health, improving long-term policy compliance.
15	0	++	Alternative A maintains existing conditions. Alternative B benefits physical and mental health via active travel infrastructure, cleaner air, and safer streets, as well as enabling opportunities for healthier lifestyles.
16	0	+	Alternative A offers no new improvements. Alternative B supports inclusive mobility, public transport, rural access, and access for people with protected characteristics or limited mobility.
17	0	+	Alternative A provides no uplift for rural accessibility. Alternative B could significantly improve rural connections, access to services, and resilience for remote communities.

### ***Rationale for selecting alternative***

The assessment concludes that Alternative B represents the preferred option, as it performs more favourably against the ISA objectives and provides a more robust and forward-looking response to the environmental, social, and economic challenges facing the plan area.

While both alternatives present differing levels of environmental risk, Alternative B is expected to offer the greater potential to deliver positive sustainability outcomes in line with statutory requirements and wider policy commitments.

In environmental terms, Alternative B is likely to contribute to long-term climate change mitigation and biodiversity goals. The package of proposals enables the incorporation of low-carbon technologies, active travel measures, and modal shift, which are expected to contribute to national and local decarbonisation targets. It also introduces opportunities for BNG and the integration of green infrastructure, which Alternative A cannot provide due to its limited and maintenance-focused scope. Although Alternative B may give rise to localised and temporary impacts, such as construction noise, visual change, and potential effects on heritage or sensitive habitats, these are predictable and capable of being managed effectively through proportionate mitigation measures, design refinement, and project-level environmental assessment.

From a social perspective, Alternative B is expected to provide enhanced access to jobs, services, and key destinations as well as opportunities to support health and wellbeing through increased levels of walking, cycling, wheeling and cleaner air, and supporting more inclusive transport provision. This is particularly relevant for groups who experience barriers to mobility or for rural communities where accessibility challenges are more acute. Alternative A, by contrast, largely maintains existing patterns of accessibility and provides no meaningful improvements for those currently experiencing transport disadvantage. As a result, it does not capitalise on opportunities to address health inequalities, social inclusion, or quality-of-life outcomes.

Economically, Alternative B also offers stronger benefits through improved connectivity, enhanced network reliability, and with potential benefits for economic growth and regeneration. The proposed schemes have the potential to improve labour market access and productivity, stimulating broader economic activity across the plan area. Alternative A maintains the current condition of the transport network but provides very limited uplift; in the longer term, these risks constraining economic growth and failing to support the ambitions of the region's strategic plans.

While Alternative A avoids the risks associated with new development, it does not actively respond to the major environmental and societal challenges identified in the plan, particularly in relation to climate change, biodiversity decline, and long-term resilience. By relying on maintenance alone, it would result in a "do-minimum" approach that fails to deliver transformative change, does not align strongly with policy expectations, and would not position the transport system to meet future needs or population growth pressures. It may also result in its own incremental environmental risks, such as maintenance-related pollution or disturbance, but without the compensatory benefits that accompany Alternative B.

Taking all factors into account, Alternative B provides the greatest overall sustainability benefit. With appropriate mitigation, design development, and monitoring in place, its residual environmental impacts can be reduced to acceptable levels, allowing the significant positive effects on climate, health, connectivity, and equality to be realised. In contrast, Alternative A does not offer comparable benefits and risks failing to meet long-term policy and sustainability objectives.

## 8 Investment Programmes Assessment

This chapter provides an assessment of the likely environmental, economic and social implications of the programme-level measures relating to activation, behaviour change and broader service improvements, considering both their direct effects and the indirect contributions they make in supporting sustainable travel outcomes across Lancashire.

### Rail Investment Programme

This programme comprises a suite of schemes intended to enhance rail connectivity, railway station quality and regional east–west movement across Lancashire. Some schemes already have planning permission (along with an EIA) or are sufficiently minor to be screened out of detailed ISA assessment, while others remain at feasibility or strategic development stage during the plan period. As a result, the assessment distinguishes between schemes with established environmental baselines and mitigation and those with greater uncertainty due to early-stage design.

This programme also includes a **Rail Strategy**: This strategy underpins future scheme development and prioritisation. It would determine key routes for upgrade, as well as identifying any missing or underserved links, building on the Lancashire Services Uplifts (Operational Feasibility and Demand Assessment) report. It would consider the interchange of rail with other modes of travel, better integrating rail with local transport networks.

### Environmental Considerations

The environmental performance of this programme varies according to the type and maturity of the schemes, with screened-out proposals, feasibility-stage projects and strategic infrastructure improvements contributing differently across Objectives 1–12. Schemes already assessed through planning, such as Cottam Parkway, and operational changes like the Lancashire Rail Service Improvements, generate no further significant effects (or have already been taken account of) and therefore have neutral or already-mitigated outcomes.

For the more strategic interventions, particularly the East–West Rail Infrastructure Improvements, Restoring Your Railways (RYR) proposals and the Colne–Skipton reinstatement, the strongest positive contributions relate to climate, carbon and air-quality objectives. Electrification and improved service capacity have the potential to reduce reliance on private vehicles, supporting carbon reduction (Objective 5), improved air quality (Objective 3) and enhanced network resilience (Objective 6).

However, as several schemes are still at feasibility stage, there remains considerable uncertainty around effects on biodiversity and designated sites (Objectives 1–2), soils (Objective 10) and the water environment (Objective 11), particularly where new stations, reinstated track sections or access infrastructure may extend beyond existing rail corridors. This is most notable for the Colne–Skipton line, where sensitive landscapes, heritage settings (Objective 7) and conservation areas introduce potential for adverse impacts unless carefully mitigated.

Construction activity associated with future delivery could also produce temporary disturbances, including noise (Objective 4), dust and emissions, and localised vegetation loss or land take where new infrastructure is required. While many longer-term benefits are linked to low-carbon rail operations, the scale of environmental risk varies. The East–West improvements show broadly positive long-term outcomes with manageable uncertainties, whereas the RYR and Colne–Skipton proposals exhibit wider ranges of potential effects due to their partial reliance on greenfield land or historic alignments.

Early-stage rail and mass transit feasibility schemes should include proportionate environmental constraints assessments at concept stage to avoid or minimise impacts on designated sites, heritage assets, landscape and hydrological receptors

Overall, the programme demonstrates a mix of beneficial climate-related performance and uncertain or potentially adverse effects on ecological and landscape receptors, reflecting its combination of corridor-based enhancements and more transformative reinstatement schemes.

### **Economic Considerations**

Economically, this programme performs strongly across Objectives 13 and 14, with clear links to improved connectivity, labour-market access and regional growth. The East–West Rail Infrastructure Improvements represent the most transformational element, strengthening cross-county links between Blackpool, Preston, Blackburn and Colne and improving connections to wider regional centres. These enhancements support employment, education and skills accessibility, reinforcing Objective 13 by reducing travel barriers and enhancing the efficiency of business, commuter and visitor movements.

Schemes such as the RYR proposals, the Colne–Skipton reinstatement, and the development of new stations including Ewood / Lower Darwen demonstrate more localised but still meaningful economic uplift, particularly in areas that currently suffer from constrained rail access. These interventions can stimulate regeneration, expand labour-market catchments and support town and settlement vitality. The Preston and Blackpool North station upgrades, while only at feasibility stage, also contribute to long-term economic objectives by enhancing key gateways into the county and improving interchange quality.

Across the programme, there is also a strong alignment with Objective 14, which focuses on coordinated transport and land-use planning. Rail investment supports transit-oriented development, strengthens links between regeneration sites and employment areas, and complements wider low-carbon growth strategies. While the extent of realised benefits depends on future delivery and funding, the overall economic trajectory of the programme is highly positive and closely aligned with Lancashire’s strategic development ambitions.

### **Social considerations**

Social outcomes across this programme are predominantly positive, with rail-based interventions performing particularly well against health and wellbeing, equality and

rural-connectivity objectives. Improved station environments, enhanced service frequency and new access points, most notably through the East–West improvements, RYR schemes and proposals for Ewood / Lower Darwen railway station, support healthier and more equitable travel choices, advancing Objective 15 by reducing car dependency and improving access to key services.

Even at feasibility stage, schemes such as the Preston and Blackpool North station upgrades are expected to strengthen inclusive design and enhance the passenger experience, contributing to safer, more accessible movement environments.

Equality of opportunity (Objective 16) is a consistent area of strong performance across the programme. Rail improvements benefit users who rely on public transport, including disabled people, older residents, young people and lower-income households. Proposals that restore or reinstate services, particularly through RYR and the Colne–Skipton scheme, help reduce transport disadvantage in areas with limited alternatives.

The programme also performs particularly well in relation to rural connectivity (Objective 17), with several schemes directly supporting improved links for rural and semi-rural communities along the East–West corridor and between Colne, Skipton and intermediate settlements. These enhancements help strengthen access to employment, education and healthcare, reducing isolation and improving social resilience.

Overall, while some construction-related disruption may arise in future delivery phases, the long-term social performance of the programme is strongly positive, reflecting its ability to expand equitable, accessible and sustainable travel opportunities across Lancashire’s diverse communities.

## **Strategic Highway Network Improvements and Congestion Management Investment Programme**

This programme focuses on enhancing key corridors and junctions to improve traffic flow, reduce congestion, and support economic growth.

A **Key Route Network Strategy** is proposed as part of this investment programme. This strategy would identify the most important local routes, which support movement across Lancashire. It would determine where targeted investment could best improve these routes, adopting a multi-modal approach in all cases. This would assist in the development and prioritisation of future schemes.

### **Environmental Considerations**

Environmental performance across this programme varies considerably depending on the nature and proximity of individual schemes to sensitive environmental receptors. Several interventions, such as Skew Bridge and Preston Road improvements, have already progressed and therefore do not generate further significant effects within the ISA and have been screened out.

Corridor-based schemes such as the A588, A683 and A6 improvements present a more complex environmental picture due to their proximity to highly sensitive ecological and hydrological areas. These routes adjoin the Lune Estuary SSSI and European sites including Morecambe Bay, and portions of the corridors lie within flood-risk zones. While operational changes such as speed management and improved visibility may contribute modestly to reductions in emissions (Objective 5) and smoother flows (Objective 3), there is a risk of adverse impacts on biodiversity and designated sites (Objectives 1–2), water (Objective 11), heritage (Objective 7) and landscape character (Objective 8) where works extend into verges or semi-natural land.

In such cases, effects remain uncertain but potentially negative until design information becomes available. Similar patterns arise on the A570 corridor, where proximity to the Martin Mere SSSI and Ramsar site heightens environmental risk. Although junction optimisation may marginally improve traffic efficiency, it is unlikely to offset the potential for adverse effects on biodiversity, landscape and the water environment, particularly where drainage, vegetation removal or construction disturbance occur.

More balanced environmental outcomes are associated with the A666 corridor, where sustainable transport interventions, including bus priority and active travel provision, support slight improvements in air quality (Objective 3) and carbon reduction (Objective 5). These benefits are tempered by the corridor's environmental sensitivity, including its proximity to the West Pennine Moors SSSI and peat-rich areas, resulting in precautionary neutral-to-adverse scores for biodiversity, soils and water (Objectives 1, 2, 10 and 11).

For the set of development-only schemes, notably M6 Junction 34, M55 Junction 3 to Windy Harbour, and the A56-M66 corridor, environmental effects within the plan period are limited to feasibility-stage activities. Uncertainty dominates the assessment, and longer-term delivery is likely to result in adverse effects related to air quality, carbon, noise and water (Objectives 3–6 and 11), reflecting the potential for increased vehicle capacity and landscape change. While opportunities exist to embed sustainable travel and active mode enhancements, the environmental profile of these schemes remains cautious due to the absence of design detail and the inherently highway-led nature of future interventions.

### **Economic Considerations**

Economic performance across the programme is broadly positive, although the scale and nature of benefits range from incremental local improvements to more strategic, long-term gains. The A588, A683 and A6 corridor improvements, while not transformative, help improve safety, reliability and local network performance, providing modest productivity benefits for residents, businesses and freight movements. Similarly, enhancements along the A570 corridor improve access to the Burscough industrial estate, generating moderate economic value by supporting local employment areas and reducing operational inefficiencies.

More substantial economic benefits are expected from schemes that improve key commuter and employment corridors, such as the A666 improvements, where bus

priority and junction upgrades enhance travel reliability between Blackburn and Darwen. These benefits contribute to more efficient labour-market access and support wider economic resilience (Objective 13).

For strategic schemes programmed for 5–10-year development, including M6 Junction 34, M55 Junction 3 to Windy Harbour and the A56–M66 corridor, economic benefits are dependent on longer-term delivery but remain significant in strategic terms. Improvements to motorway feeder roads are expected to strengthen connectivity to employment areas, freight routes and growth locations, supporting coordinated transport and land-use planning (Objective 14). Although realised benefits lie beyond the current Implementation Plan period, early development work helps secure future economic capacity, justifying moderate to major beneficial assessments at this stage.

### **Social Considerations**

Social effects across the programme are largely positive, with most schemes contributing to improved safety, accessibility and journey reliability. Corridor-based schemes such as the A588, A683 and A6, A570 and A666 generate positive social effects through improved safety, reduced conflict at junctions and enhanced conditions for pedestrians and cyclists where provided. These outcomes support reductions in accident risk and enhance perceptions of safety (Objective 15), particularly in areas where communities experience severance or high traffic volumes.

Schemes incorporating active travel and public transport priority, particularly along the A666 corridor, deliver stronger social benefits by improving access for non-car users and supporting equality of opportunity (Objective 16). For development/feasibility-only schemes including M6 Junction 34, M55 J3 and the A56–M66 corridor, social benefits are more modest and largely relate to anticipated future improvements in road safety and journey reliability. While these schemes may ultimately improve access to employment and services, their benefits for rural communities (Objective 17) and equality (Objective 16) remain uncertain due to their strategic nature and dependence on future design decisions.

Overall, the social performance of the programme is shaped by the balance between safety enhancements and potential traffic-related impacts, with the strongest social contributions made by schemes that integrate sustainable travel and accessibility improvements.

## **Growth Site Transport Infrastructure Investment Programme**

This programme supports transport improvements linked to major growth and regeneration sites across Lancashire, aiming to facilitate development, improve accessibility, and enhance connectivity.

### **Environmental Considerations**

Environmental performance across this programme is mixed, reflecting the contrast between capacity-led highway schemes that directly enable new development and sustainable access packages that support modal shift. Schemes such as Botany Bay /

Hartwood S278 and the North Blackburn SHS Transport Package perform poorly against environmental objectives because they introduce additional junction capacity, new link roads and highway alterations directly associated with growth sites. These interventions increase traffic volumes and generate adverse effects on air quality (Objective 3), carbon emissions (Objective 5), noise (Objective 4), soils (Objective 10), water (Objective 11) and landscape character (Objective 8). While effects on biodiversity and heritage (Objectives 1–2 and 7) are uncertain at this stage, land take, vegetation loss and drainage modifications mean that adverse outcomes within the plan period are plausible. These capacity-led schemes therefore record predominantly negative assessments across Objectives 1–12.

By contrast, the Eden Project Transport Infrastructure, Blackburn Cyber Campus Transport Package, Samesbury EZ Transport Package and South-East Blackburn SES Transport Package demonstrate more balanced or positive environmental performance due to their strong emphasis on bus priority, railway station enhancements and improved walking and cycling access. These measures contribute to reduced reliance on private car travel, supporting slight to moderate benefits for air quality (Objective 3), carbon reduction (Objective 5) and climate-related objectives (Objective 6). However, some schemes, particularly the Eden Project infrastructure, lie close to environmentally sensitive areas including the Morecambe Bay SSSI and European sites, where construction, land take or changes in traffic distribution could result in disturbance, habitat loss or hydrological impacts. As a result, several objectives relating to biodiversity, designated sites, water and heritage (Objectives 1–2, 7 and 11) remain uncertain or potentially slightly adverse pending further ecological and HRA assessment once more detail is available.

The M65 Junction 13 Phase 2 scheme sits between these two profiles, as although it incorporates sustainable travel elements that support carbon reduction and modal shift, these benefits are likely to be offset by the traffic-generating effects of major housing and economic development. As a result, environmental outcomes remain mixed, with negative effects on air quality, carbon, noise, landscape and water during both construction and operation.

Overall, environmental performance across the programme reflects the differing purposes of the schemes: where growth-enabling highway capacity is the primary objective, adverse impacts across Objectives 1–12 dominate; where schemes focus on sustainable access to major development or employment sites, more positive performance emerges, albeit with residual uncertainty linked to proximity to sensitive receptors.

### **Economic Considerations**

This programme performs strongly in economic terms, reflecting its role in facilitating major development, improving access to strategic employment locations and enhancing labour-market connectivity. Schemes such as Botany Bay / Hartwood, North Blackburn SHS transport package, and M65 Junction 13 Phase 2 deliver moderate to significant economic benefits by unlocking housing and employment land, improving journey reliability and enabling planned development to proceed. These interventions align

closely with Objective 13 by supporting construction activity, investment confidence and local economic productivity.

Higher-value strategic schemes, including the Eden Project Infrastructure scheme, Blackburn Cyber Campus Transport Package and Samesbury EZ Transport Package, perform particularly strongly. These schemes enhance access to nationally significant visitor, education and enterprise facilities, improving public transport links and addressing barriers to workforce and visitor movement. By strengthening the relationship between transport, development and employment opportunities, these schemes make a substantial contribution to Objective 14, promoting coordinated transport–land-use planning and supporting the long-term economic resilience of key regional growth locations.

While some economic benefits depend on the scale and timing of associated development, the overall economic direction of travel is positive. Most schemes deliver clear enabling value, either by providing the infrastructure necessary to support future development or by improving access to skilled employment and education opportunities. On this basis, the programme demonstrates consistent alignment with both economic objectives.

### **Social Considerations**

Social outcomes across the programme are generally positive, although the scale of benefit varies depending on whether transport measures primarily enhance sustainable access or facilitate new highway capacity. Schemes such as the Blackburn Cyber Campus Transport Package, South-East Blackburn SES transport package, and Samesbury EZ transport package deliver the strongest social performance. By improving bus services, pedestrian and cycle access, and overall permeability to key employment and education sites, these schemes support health and wellbeing (Objective 15), broaden travel choice and enhance equality of opportunity (Objective 16), particularly for users without access to a private car. Improved access to skills, training, leisure and employment reinforces inclusive growth and provides clear long-term social value. Rural connectivity (Objective 17) is also positively influenced where schemes strengthen links between outlying communities and key destinations, although benefits are typically modest and dependent on service patterns.

The Eden Project Transport Infrastructure performs similarly well, offering substantial social benefits by enabling inclusive access to a regionally significant visitor and employment destination. Health, wellbeing and equality outcomes score particularly highly due to the scheme's strong emphasis on non-car accessibility and associated reductions in transport barriers.

For more highway-focused schemes, including Botany Bay / Hartwood, North Blackburn SHS transport package, and M65 Junction 13 Phase 2, social benefits tend to be more functional and modest. While improved junction performance and capacity can enhance safety, journey reliability and local access, these benefits are balanced against the potential for increased traffic, noise and air-quality pressures, which may limit wellbeing outcomes (Objective 15) and create uneven impacts among user groups. Equality effects

are generally slight but positive, as improved access supports new homes, jobs and services, though benefits are less transformative than for sustainable transport-led schemes.

Overall, the programme's strongest social performance is associated with schemes that enhance accessibility through active travel and public transport, while highway-enabling schemes provide more limited but still positive contributions to movement, safety and access for existing and future communities.

## **Strategic Freight Connectivity Enhancements Investment Programme**

This investment programme is expected to be delivered over the medium term, with the proposed East Lancashire Freight Rail Terminal likely to come forward within the next 5–10 years. However, the feasibility, detailed design and assessment work required to refine the scheme would take place during the current plan period.

### **Environmental Considerations**

As the programme consists of a single, large-scale infrastructure project, its environmental performance at this stage reflects the initial concept for the rail terminal rather than a confirmed design. Early indications suggest that development of a new freight facility could involve notable land take and new built form. This gives rise to potential moderate adverse effects on biodiversity and habitats (Objectives 1–2), soils (Objective 10) and water resources (Objective 11), primarily due to construction-stage disturbance and changes to surface water management. Effects on landscape character (Objective 8) and visual amenity may also arise given the industrial scale of the infrastructure.

Although near-term environmental risks are likely, longer-term opportunities remain. If the terminal achieves a meaningful shift of freight from road to rail, it could help reduce HGV traffic on strategic corridors, contributing to improvements in air quality (Objective 3), lower carbon emissions (Objective 5) and reduced traffic-related noise and congestion (Objective 4). However, these benefits depend on the final design, precise location, operational scale and market uptake, factors that would be explored and tested through feasibility and assessment work during the plan period. As such, outcomes for designated sites (Objective 2), heritage (Objective 7) and geodiversity (Objective 9) remain uncertain until more detailed work is undertaken.

### **Economic considerations**

From an economic perspective, the scheme continues to score strongly. Over the next 5–10 years, the terminal has the potential to significantly enhance Lancashire's freight and logistics capacity, strengthening supply chains, improving regional connectivity and supporting resilience across key sectors. This aligns well with Objective 13 and includes benefits such as construction and operational employment, productivity gains and enhanced competitiveness for businesses across the region.

Partnership delivery with the private sector further supports long-term investment prospects. Positioned as a strategic freight hub, the terminal could anchor Lancashire more firmly within national logistics networks, attract new operators and broaden the economic base. This supports strong performance against Objective 14 and demonstrates the scheme's strategic importance, even at its current development and facilitation stage.

### **Social Considerations**

Social outcomes are anticipated to be moderately positive. Over the longer term, the scheme may broaden access to logistics employment and supply-chain roles, supporting equality of opportunity (Objective 16), particularly in areas with higher deprivation or limited labour market diversity. Potential reductions in HGV traffic on certain strategic routes could indirectly improve health and wellbeing (Objective 15) by reducing exposure to congestion-related air and noise pollution.

However, localised impacts, such as construction noise, lighting and increased activity around the terminal, may limit the degree of direct amenity improvement for communities in the immediate vicinity. Implications for rural connectivity (Objective 17) remain neutral, reflecting the freight-specific nature of the intervention. Overall, social benefits depend on the terminal's eventual design and operation, which would be shaped through further feasibility and assessment work during the plan period.

## **Light Rail and Mass Transit Investment Programme**

This investment programme seeks to deliver high-capacity, sustainable transport solutions for key corridors, supporting modal shift and reducing reliance on private vehicles. The assessment considers environmental, economic, and social implications in line with ISA objectives.

### **Environmental Considerations**

The proposed expansion of the Blackpool–Fleetwood Tramway offers notable long-term environmental opportunities by encouraging potential modal shift from private cars to electric, fixed-route public transport. This has the potential to generate strong benefits for air quality (Objective 3) and carbon reduction (Objective 5), alongside wider climate resilience and energy-efficiency improvements (Objective 6), once operational.

However, the tramway expansion also presents environmental risks that will require detailed assessment as the project develops. The potential proximity to highly sensitive coastal, estuarine and internationally designated environments (including SSSI and European sites) mean construction or increased tram activity could lead to disturbance, habitat loss or hydrological change (Objectives 1, 2, 8, 10 and 11). Uncertain effects on heritage (Objective 7) remain depending on the final alignment and design.

Overall, the programme demonstrates a balance of potentially significant environmental benefits through modal shift, set against localised ecological, landscape

and water-related risks that cannot be fully characterised until feasibility work progresses.

### **Economic Considerations**

The Light Rail and Mass Transit Programme retains strong economic potential through the proposed extension of the Blackpool–Fleetwood tramway. Enhanced connectivity along the Fylde Coast is expected to support the visitor economy, local regeneration initiatives and improved access to employment and training. These benefits align closely with Objective 13 by strengthening labour-market access and supporting job creation, and with Objective 14 through improved integration of transport and development planning.

Although delivery is not anticipated within the current IP period, ongoing feasibility work will ensure that the economic benefits can be realised in future investment cycles. At this strategic stage, the programme is therefore assessed as having moderate to major beneficial economic effects.

### **Social Considerations**

Social effects are expected to be positive in the long term. The Blackpool–Fleetwood tramway expansion would improve access to employment, education, leisure and services across the Fylde Coast, benefitting communities with limited car access and supporting lower-income and younger households. This aligns strongly with objectives for health and wellbeing (Objective 15), equality of opportunity (Objective 16) and improved rural-fringe connectivity (Objective 17). Enhanced reliability, reduced congestion and a higher-quality public transport offer also support inclusive and accessible mobility.

While these benefits will not materialise during the plan period, the scheme demonstrates a clear trajectory towards significant long-term gains by reshaping travel behaviour, enhancing accessibility and providing a more equitable transport network.

## **Active Travel Network Development Investment Programme**

This programme builds on the Local Cycling and Walking Infrastructure Plans (LCWIPs) to create a coordinated, inclusive and well-connected active travel network.

**An Active Travel and Placemaking Strategy** is proposed for this programme. This would be a holistic plan, combining public realm measures with explicit active travel infrastructure, to more widely improve the experience of walking, wheeling and cycling in Lancashire. An example outcome may be the pedestrianisation of a town centre and the strategy would also include consideration of micromobility options, such as town centre e-bike hire.

### **Environmental Considerations:**

Across this programme, the environmental effects present a mixed picture of uncertainty, neutral outcomes and modest benefits, reflecting the differing levels of design maturity among the component schemes. The LCWIP programme, both the initial development phase and the further routes proposed is characterised by a high degree of uncertainty, as the specific corridors and walking zones to be delivered within the plan period have not yet been identified. Without route-level information, it is not possible to assess likely interactions with biodiversity and ecosystem resilience (Objective 1), designated nature conservation sites (Objective 2), landscape and townscape character (Objective 8), heritage assets (Objective 7), or soil, water and geodiversity receptors (Objectives 9–11).

At this strategic stage, significant adverse effects are unlikely, yet a precautionary approach is appropriate until detailed design and environmental constraints are confirmed. Similar uncertainties apply to the Public Rights of Way (PRoW) Delivery Ready package, where the sheer diversity of contexts, ranging from farmland and woodland to suburban edges, means that potential effects on ecological and landscape receptors cannot be reliably predicted without detailed scheme information.

Where environmental benefits are identifiable, they tend to arise from modal shift. All active travel schemes have the potential to contribute to reduced traffic-related emissions, offering long-term positive effects on air quality (Objective 3) and helping to support carbon reduction (Objective 5). These benefits are incremental but directionally positive, especially where high-quality walking and cycling infrastructure replaces short car trips. The PRoW enhancements reinforce these outcomes by providing safer, more accessible and more attractive corridors for everyday walking and cycling.

Noise effects (Objective 4) are expected to remain neutral across the programme, as active travel interventions do not generate significant operational noise. Climate resilience (Objective 6) may see modest benefits where improved PRoW drainage reduces erosion and surface water issues, although these effects depend on localised design. Overall, the environmental profile is characterised by precautionary uncertainty in the absence of detailed routing information, coupled with modest long-term environmental benefits associated with modal shift and the enhancement of active travel corridors.

### **Economic considerations:**

The Active Travel Network Development programme is expected to deliver slight to moderate beneficial economic effects, primarily through enhanced connectivity, increased accessibility and support for more efficient, inclusive local economies. Both the initial LCWIP implementation and the further LCWIP delivery work strengthen local walking and cycling networks, improving access to jobs, education, services and town centres, particularly for short-distance journeys that constitute a significant share of local trip demand. These improvements support Objective 13 by widening access to opportunities and reducing transport-related barriers to participation in the labour market. PRoW enhancements contribute in a similar way, improving access between rural settlements and local facilities, and supporting visitor-related economic activity through more attractive and reliable recreational routes. The economic benefits

associated with the Blackpool Road scheme are modest but positive, enhancing access to key local destinations and encouraging active travel as a viable alternative to short car trips.

The programme also provides some support for the wider coordination of land use and energy planning (Objective 14). LCWIP implementation aligns with sustainable spatial planning by reinforcing the role of active travel in future growth areas and encouraging more compact and accessible development patterns. While the economic benefits are predominantly incremental rather than transformative, they contribute cumulatively to the resilience and inclusivity of local economies across both urban and rural parts of Lancashire. No significant adverse economic effects are anticipated.

### **Social Considerations:**

Social impacts across the programme are strongly positive, with particularly significant benefits for health, equality and rural connectivity. The LCWIP programme, both the core development phase and the additional routes expected to follow, supports widespread improvements in health and wellbeing (Objective 15) by enabling more people to walk, wheel and cycle for everyday journeys. Increased physical activity, improved perceptions of safety, and enhanced public realm conditions all contribute to better mental and physical health outcomes. These effects are complemented by the PRoW improvements, which make existing routes safer, more accessible and more attractive, encouraging regular recreational use across a wide range of age groups and abilities.

Equality impacts (Objective 16) are also notably positive. High-quality walking, wheeling and cycling infrastructure benefits people without access to a private car, including young people, low-income households and residents with certain disabilities who rely on step-free or traffic-free routes. PRoW upgrades further support accessible mobility for those with limited transport options, while the Blackpool Road subway scheme enhances safety and legibility in a route that may otherwise present barriers for more vulnerable users. The programme collectively contributes to fairer access to employment, services and community facilities.

Rural connectivity benefits (Objective 17) are pronounced, particularly within the PRoW programme and rural LCWIP corridors. Many rural settlements rely on PRoW and active travel routes to reach neighbouring villages, local shops, bus stops and recreational spaces. Enhancing these links reduces isolation, strengthens local community cohesion and ensures that rural residents can access the same opportunities as those in urban areas. The Active Travel Network Development programme therefore makes a significant contribution to rural fairness and inclusive mobility.

## **Bus Infrastructure Investment Programme**

This investment programme includes stations, stops and shelters which are the gateway to the bus network and must provide the highest possible quality passenger waiting experience, as well as being convenient and safe to access. It also includes bus-specific highway infrastructure such as bus lanes and use of urban traffic management control

(UTMC) to maintain efficient traffic flow and provide priority for buses at key junctions. Such infrastructure would form part of a suite of measures to improve service reliability.

### **Environmental Considerations:**

Across this programme, environmental effects are characterised by a mixture of uncertainty, neutrality and the potential for longer-term beneficial outcomes. The range of interventions spans both small-scale improvements, such as bus stop accessibility upgrades, and more substantial measures within the wider Bus Service Improvement Plan (BSIP) and further development programme. The screened-out bus stop accessibility schemes are inherently constrained to existing highway and footway footprints and do not involve land take, new construction or alterations to the physical environment. As such, these works are not expected to give rise to changes in biodiversity and ecosystem resilience (Objective 1), impacts on designated ecological sites (Objective 2), or effects on heritage, landscape, soils or water resources (Objectives 7–11). Their environmental profile is neutral, with any construction-phase disturbance expected to be very small-scale and well within the scope of routine highways good practice.

In contrast, the larger infrastructure elements of the BSIP and the Further Bus Infrastructure Development Programme present a high degree of environmental uncertainty at this stage due to the absence of confirmed locations and detailed designs. Bus lanes, junction modifications, bridge works and interchange upgrades have the potential to interact with sensitive receptors if located near ecological, heritage or water assets, although the extent, if any, of such interactions remains unknown. Construction activities may cause short-term increases in noise (Objective 4), dust and resource use (Objective 12), while alterations to drainage or ground conditions could influence water and soil environments (Objectives 10–11), depending on site characteristics.

The Blackpool Coach Station introduces additional uncertainty. Depending on its siting and scale, slight to moderate adverse effects could arise through increased localised emissions and noise from construction and coach operations (Objectives 3 and 4), along with resource use and waste generation during construction (Objective 12). Potential interactions with biodiversity, heritage and water environments would need to be assessed once a specific location is confirmed.

Despite these uncertainties, there is clear potential for long-term beneficial environmental effects across the programme. Enhanced bus priority and improved passenger facilities can contribute to modal shift away from private car use, thereby supporting reductions in air pollution (Objective 3), carbon emissions (Objective 5), and, in some contexts, traffic noise (Objective 4). The scale of these benefits would depend on the effectiveness of the interventions in improving service reliability and journey times. Overall, the environmental implications of the programme remain precautionarily uncertain, with neutral effects from the screened-out measures and a mix of potential impacts, positive and adverse, associated with larger, as-yet-undefined infrastructure proposals.

**Economic considerations:**

This programme is expected to deliver moderate positive economic impacts overall, although the scale and distribution of benefits vary across the different schemes. The screened-out bus stop accessibility works are small in scale and focused primarily on safety and user experience. Their economic effects are therefore minor and supportive rather than transformative, contributing to improved access to opportunities without influencing wider patterns of development or economic growth.

The larger BSIP works programme and further development of bus corridors are anticipated to generate more significant economic benefits. Enhanced bus priority and improved interchange facilities support more reliable, efficient and attractive public transport, strengthening access to employment, education and essential services. These improvements contribute directly to Objective 13 by widening the labour market catchment and reducing transport-related barriers, particularly in areas where public transport reliability has historically been a constraint on access to opportunities. Improved bus infrastructure also supports local productivity by reducing delays, easing congestion and improving network efficiency.

The proposed Blackpool Coach Station is expected to yield clear economic gains, particularly for Blackpool's visitor economy. Enhanced coach facilities can improve the town's competitiveness as a destination, improve visitor experience and potentially increase tourist footfall, supporting local businesses and contributing to employment and regeneration objectives.

Across the programme, there is also a meaningful contribution to the coordination of transport, land use and regeneration objectives (Objective 14). By strengthening key public transport corridors and supporting long-term modal shift, the programme aligns well with sustainable growth policies across Lancashire. Taken together, these schemes collectively support a more accessible and productive economy.

**Social considerations:**

Social impacts across this programme are strongly positive, with benefits arising from improved accessibility, increased safety, enhanced passenger environments and more reliable public transport services. The screened-out bus stop accessibility improvements, although small in scale, deliver meaningful positive effects for pedestrians, wheelchair users and passengers by improving crossing facilities, reducing conflict between cyclists and bus users, and enhancing safety and legibility at stops. These interventions support health and wellbeing (Objective 15) by enabling safer and more confident access to bus services, particularly for older people, disabled residents and those with mobility limitations.

The wider BSIP and Further Bus Infrastructure Development Programme reinforce and extend these benefits. Improved reliability and journey quality can reduce travel-related stress, encourage active travel to and from bus stops, and support access to health, education, employment and social activities. These improvements also enhance equality of opportunity (Objective 16), particularly for individuals and communities without access to a private car, including younger people, lower-income households and

residents with disabilities. Enhanced interchange quality, safer facilities and better lighting can support greater independence and confidence among protected groups.

The Blackpool Coach Station is similarly expected to generate positive social impacts by improving the accessibility, safety and experience of coach travel. A well-designed and strategically located facility can provide safer boarding areas, better waiting environments and improved information provision, benefiting both local residents and visitors.

Rural impacts (Objective 17) are moderately positive across the programme, although the scale of benefit would depend on the extent to which rural corridors and communities are included within future delivery. Improved reliability and interchange quality can strengthen rural access to key services and support longer-distance travel via Blackpool and other gateways.

Overall, the programme is associated with clear, sustained and widely distributed social benefits, supported by both screened-out and fully assessed schemes, with no significant adverse impacts anticipated.

## **Bus Service Improvement Investment Programme**

This programme focusses on enhancing service frequency, reliability and potential service extensions. An attractive bus service also needs clean, safe and smooth-running vehicles, good public transport information, affordability and easy interchange with other modes, such as rail, walking, wheeling and cycling. More specifically, this may include improved railway station links in places such as Preston and the continued roll-out of multi-operator ticketing across Lancashire.

### **Environmental Considerations:**

Environmental effects across this programme are predominantly neutral, reflecting the nature of the interventions, which are either service-based or involve policy changes rather than new infrastructure. The maintenance of the existing bus network and the continuation of multi-operator ticketing represent a continuation of current operations, with no physical works, land-take or intensification of activity beyond the baseline. As such, these measures do not present pathways for effects on biodiversity (Objective 1), designated ecological sites (Objective 2), the historic environment (Objective 7) or water, soil and geodiversity receptors (Objectives 9–11). Where these actions prevent service decline and help avoid shifts from bus travel to private car use, they may offer very minor benefits for air quality (Objective 3) and carbon emissions (Objective 5), though such effects would be modest and dispersed.

Bus Network and Service Enhancements, such as increasing frequency on existing routes, are similarly unlikely to generate significant environmental effects. While increased frequency may lead to marginal rises in local emissions or noise (Objectives 3 and 4), these changes are expected to be extremely small in magnitude and offset by the potential for reduced private vehicle use if service improvements encourage modal shift. The Bus Fares intervention, which standardises fares for young people, is purely

policy-based and therefore has no direct environmental effects. Any indirect modal shift benefits would be slight and uncertain at this stage.

Overall, the environmental profile of the programme is one of neutrality, with very limited potential for indirect positive effects driven by improved network stability and affordability. No adverse environmental impacts are anticipated, and the screened-out interventions reinforce the conclusion that the programme operates firmly within the bounds of established bus service activity without materially altering environmental baselines.

### **Economic considerations:**

Economic impacts across the programme are assessed as minor but positive, with benefits arising primarily from maintaining and marginally enhancing accessibility rather than from any significant change to the transport network. Maintaining the existing bus network sustains current levels of access to employment, education and essential services, supporting the ongoing functioning of local economies without introducing new development pressures. These effects contribute modestly to economic participation (Objective 13), particularly in rural areas or among groups reliant on bus travel, but do not alter broader economic structures.

Network and service enhancements, although screened out of detailed assessment, may generate slight improvements in convenience and reliability along the affected routes. Increased frequency can support more flexible commuting options and improve labour market access, although these changes remain incremental and route-specific rather than strategically transformative. The policy-based Bus Fares intervention provides minor financial benefits for young people and families. These gains are supportive of economic inclusion but remain small-scale and are unlikely to influence the strategic coordination of land use and transport planning (Objective 14), as the underlying network and spatial patterns remain unchanged.

The Bus Service Improvements programme supports the resilience and stability of the existing bus system. Its economic benefits while meaningful for those directly affected are modest and stem primarily from safeguarding current levels of accessibility rather than generating new economic activity or enabling significant modal or structural shifts.

### **Social considerations:**

The programme delivers a set of modest but broadly positive social outcomes, strengthening the accessibility and affordability of bus services for a wide range of users. Maintaining the existing network supports continued access to key facilities, including healthcare, education, shops and social opportunities, particularly for groups with limited transport alternatives such as older people, disabled residents, young people and households without access to a private car. This stability contributes indirectly to improved wellbeing (Objective 15) by reducing the risk of isolation or transport-related exclusion.

Bus Network and Service Enhancements provide slight but meaningful social benefits where increased frequency reduces waiting times, improves perceptions of safety, and

expands the usability of bus services for short-notice or time-sensitive journeys. Although these changes do not represent major interventions, they enhance everyday mobility and help remove practical barriers for users dependent on public transport.

The Bus Fares intervention offers the clearest social gains within the programme. Standardising and reducing fare variability for children and young people supports equality of opportunity (Objective 16). These benefits are particularly relevant for low-income households, for whom bus fares may constitute a significant cost barrier. While the changes are modest, they can help strengthen social inclusion, participation and independence among younger travellers.

Rural impacts (Objective 17) remain modest but positive across the programme. Maintaining existing services is particularly important for rural communities, where alternative transport modes are limited. Fare improvements may also support young rural residents, for whom cost barriers are often more acute due to longer travel distances.

Overall, the Bus Service Improvements programme provides a supportive social function, helping sustain and marginally enhance the accessibility and inclusivity of bus travel across Lancashire. While the interventions are small-scale and screened out of detailed ISA assessment, they collectively contribute to the stability, affordability and usability of the local bus network, with no negative social effects anticipated.

## **Sustainable Travel Promotion and Support Investment Programme**

To support the development of sustainable travel networks, we would help people change their travel behaviours, by encouraging and supporting them to change routines, adopt healthier habits or make better choices to travel more actively and sustainably. This may involve new or improved infrastructure being used as a trigger for encouraging people to walk, wheel or cycle, for example through organising a ride along of a new cycle route. It could also be an incentive programme where people are rewarded for travelling sustainably, or by using education and information to shift perceptions of different sustainable modes.

This work is essential to supporting people in choosing bus, rail and active travel options, as these networks are improved and developed.

### **Environmental Considerations:**

This programme is composed entirely of non-infrastructure interventions, community engagement activities, awareness-raising campaigns, and programmes designed to encourage modal shift towards active and sustainable travel. As none of the schemes involve physical development, land-use change or construction, there is no direct pathway for impacts on biodiversity and ecosystem resilience (Objective 1), designated nature conservation sites (Objective 2), heritage assets (Objective 7), soils and geodiversity (Objectives 9 and 10), the water environment (Objective 11), or landscape and townscape character (Objective 8). For the same reason, direct effects on air quality

(Objective 3), noise (Objective 4) and resources (Objective 12) are neutral at the point of delivery.

However, these interventions play an important enabling and amplifying role, supporting the behavioural conditions needed for wider environmental benefits to materialise. By encouraging walking, cycling and public transport use, the schemes can indirectly contribute to long-term reductions in private car trips. If successful, such modal shifts may give rise to minor but meaningful improvements in air quality (Objective 3), reductions in carbon emissions (Objective 5) and potentially lower traffic-related noise (Objective 4), although the magnitude of these indirect benefits depends on the extent to which behaviour change is sustained over time and supported by improved infrastructure elsewhere in the programme. The absence of physical works means that such environmental benefits remain indirect, diffuse and contingent, but they nonetheless play a valuable role in embedding long-term cultural and behavioural change necessary for achieving environmental sustainability objectives.

Overall, direct environmental impacts are neutral, but the wider programme has a supportive function in enabling longer-term beneficial environmental outcomes through reduced car dependency and increased uptake of active travel options.

#### **Economic considerations:**

This programme does not introduce new infrastructure, alter transport capacity or change spatial development patterns therefore its direct contribution to economic growth and labour market accessibility (Objective 13) is limited. The interventions do not materially influence travel times, network performance or connectivity, and therefore do not generate standalone changes in economic conditions.

Nonetheless, the programme provides a supplementary economic benefit by helping maximise the value of investment in wider transport schemes, particularly active travel routes, LCWIP corridors and bus priority measures. By raising awareness of new facilities, supporting skills and confidence for walking and cycling, and encouraging a shift from private car use to more sustainable modes, the programme helps increase utilisation of those assets. Over time, this can support more efficient access to employment, education and services, reduce household travel costs, and enable more equitable participation in local economies.

The initiatives also play a modest role in supporting the strategic coordination of land use and transport planning (Objective 14) by reinforcing the behavioural foundations required for sustainable mobility. While these effects remain indirect and dependent on wider network improvements, they contribute to the long-term resilience and inclusivity of the transport system.

In summary, economic impacts are minor and indirect, yet positive in terms of their contribution to maximising the return on infrastructure investment and supporting more efficient and inclusive travel behaviours.

#### **Social considerations:**

Social impacts across the programme are generally positive, reflecting the strong alignment of behavioural initiatives with health, wellbeing and community inclusion objectives. Although the 'Re:Fresh' Community Project and the broader activation and behaviour-change packages are screened out due to the absence of physical impacts, their influence on everyday behaviour has direct relevance to health and wellbeing (Objective 15). By encouraging more active lifestyles, supporting confidence in walking and cycling, and helping residents engage with local community spaces, the programmes can contribute to increased physical activity, improved mental wellbeing and reduced social isolation.

Equality impacts (Objective 16) are also positive. Behavioural-change initiatives can help reduce barriers to participation in active travel for groups who may lack confidence, resources or familiarity with walking and cycling networks, including children, young people, older adults, women, disabled residents and low-income households. Engagement activities, travel training and community-focused interventions can support more inclusive mobility, ensuring that new infrastructure benefits a wider and more diverse range of people. These schemes therefore have the potential to address existing inequalities in access to active travel opportunities, even though the effects remain behavioural rather than physical.

Rural connectivity benefits (Objective 17) are likely to be modest but positive. Behaviour-change activities may support rural residents to make greater use of existing walking, cycling or community-based travel options, although the degree of benefit would depend on local travel conditions and the availability of safe infrastructure. In some rural areas, behaviour-change initiatives can help mitigate the impacts of limited public transport by supporting active or shared mobility alternatives where feasible.

Overall, while the interventions do not produce significant standalone social impacts in the ISA sense, they deliver meaningful supportive benefits for health, inclusion, confidence and accessibility, helping embed long-term behavioural change and enabling a broader section of society to access and benefit from sustainable travel modes.

## **Community and Rural Transport Investment Programme**

The Community and Rural Transport programme aims to improve accessibility for residents in isolated and underserved areas, addressing transport inequality and supporting social inclusion.

**A Rural Roads and Village Strategy** is proposed as part of this programme. This strategy would be developed to understand how we can best provide genuine travel choices to the rural areas of Lancashire. Options such as Demand Responsive Transit (DRT) may be considered where bus frequency is low. Additionally, it would consider rural road improvements through villages such as speed management, access to Greenways and PRow, and revisiting of Quiet Lanes projects.

### **Environmental Considerations**

This programme is expected to result in largely neutral environmental effects, reflecting its focus on service provision rather than physical infrastructure. As the expansion of Community and Rural Transport does not involve new construction, land-take or material changes to the transport network, no significant interactions are anticipated with biodiversity and ecosystem resilience (Objective 1), internationally designated nature sites (Objective 2), cultural heritage (Objective 7), geodiversity (Objective 9), soils (Objective 10), water resources (Objective 11) or the character of landscapes and townscapes (Objective 8). These environmental receptors are therefore not expected to experience direct or indirect change.

Some modest benefits may arise through reductions in vehicle kilometres where shared or coordinated journeys replace multiple single-occupancy trips. In these circumstances, Community and Rural Transport can help lessen localised emissions, contributing marginally to improved air quality (Objective 3) and reducing overall transport-related carbon emissions (Objective 5). These benefits are likely to be highly localised and variable, reflecting the dispersed and demand-responsive nature of Community Transport operations.

Noise effects (Objective 4) remain neutral as the scale of activity does not materially alter traffic levels. Likewise, no substantial implications are anticipated for climate adaptation and network resilience (Objective 6), as the intervention relates to service delivery rather than infrastructure change.

Overall, the programme delivers environmental neutrality with potential for slight positive effects where coordinated travel reduces reliance on private cars.

### **Economic Considerations**

The programme is likely to generate slight beneficial economic effects by improving access to employment, education, local services and volunteering opportunities for residents who face mobility barriers. Community and Rural Transport plays an important supporting role within the wider transport system, particularly for those unable to use mainstream public transport due to age, health, disability or geographic isolation. Enhanced accessibility supports participation in the labour market and contributes to local economic resilience by ensuring that individuals in rural and semi-rural communities can continue to reach economic and social opportunities. In this respect, the programme makes a positive, albeit modest, contribution to promoting economic participation and helping sustain local economic activity (Objective 13).

While Community and Rural Transport does not directly stimulate new development or materially influence spatial planning and land-use coordination, it nonetheless complements wider strategic transport policy by reducing transport-related exclusion in harder-to-reach areas. These benefits, however, are enabling rather than transformative and do not significantly influence broader land-use or energy planning frameworks (Objective 14).

The overall economic profile is therefore one of slight but meaningful positive contribution, reflecting the programme's role in supporting inclusion within existing economic structures rather than generating new economic growth.

### **Social Considerations**

The programme delivers strong and wide-ranging positive social impacts, particularly for vulnerable and isolated residents. By improving access for individuals who cannot use mainstream public transport, whether due to mobility impairments, age-related conditions, affordability constraints or rural isolation, the programme significantly enhances health and wellbeing (Objective 15). Reliable, accessible transport enables attendance at medical appointments, reduces loneliness and supports participation in social, cultural and community activities, all of which contribute positively to physical and mental health.

Equality impacts are also strongly beneficial (Objective 16). Community and Rural Transport directly serves groups protected under the Equality Act, including disabled people and older adults, and offers door-to-door or near-door services that improve accessibility far beyond the level achievable through conventional public transport. These services help reduce structural barriers to mobility, strengthen independence and support a fairer distribution of opportunities across the population. Positive impacts are particularly notable in relation to social inclusion, personal security, access to essential services and opportunities for meaningful participation in community life.

The programme also makes a major contribution to rural equity (Objective 17). Community and Rural Transport services often provide critical connectivity in locations where commercial bus routes are limited or absent, ensuring that rural residents can maintain access to shops, health facilities, social networks and community infrastructure. This role is especially important in dispersed settlements where isolation risks are highest. As a result, the programme strongly supports rural fairness and helps prevent the deepening of geographical inequalities in access.

Overall, the Community and Rural Transport programme delivers substantial positive social outcomes, with no significant adverse effects identified. The benefits are pronounced for health, equality and rural connectivity, and represent a significant contribution to inclusive mobility across Lancashire.

### **Road Safety Investment Programme**

This programme includes targeted interventions to improve safety on key corridors and around schools, aiming to reduce accidents and promote safer travel environments.

**A School Travel Strategy** is proposed for this programme. This strategy would set out how the county would support safe, accessible and sustainable travel to and from education settings. The strategy would include an analysis of current travel patterns, identify barriers and opportunities for active and sustainable modes, and outline initiatives to promote walking, cycling, public transport and shared travel. It would be

informed by engagement with schools, pupils, parents and communities, and aligned with wider LTP objectives.

### **Environmental Considerations:**

Environmental effects across the Road Safety Programme are limited, reflecting the predominantly small-scale, localised nature of the interventions. Measures such as Road Safety Programme schemes, Crossing Point Upgrades, A582/A583 Speed Cameras, A5105 Safer Roads Improvements, and Hostile Vehicle Mitigation all operate entirely within existing highway boundaries and involve minor works such as signage, road markings, kerb realignment or equipment installation. As such, they generate no significant impacts on biodiversity, designated sites, heritage, landscape, soils or the water environment (Objectives 1–2 and 7–11). Construction-phase disturbance, short-term noise, temporary traffic management, dust, may occur but would be very localised and not significant.

Many of the safety-led schemes can deliver marginal long-term improvements in air quality and carbon emissions (Objectives 3 and 5), where reduced speeds, smoother vehicle movements or less congestion decrease idling or harsh acceleration. These benefits are modest and confined to specific locations near scheme interventions. Programmes that focus on behaviour change, such as Safety Training and Education, as well as the non-infrastructure road safety packages, have no direct environmental effects and are appropriately screened out.

More substantive interventions such as the A6 Lancaster–Preston Safety and Connectivity Improvements and Safer Routes to School combine small-scale infrastructure with behaviour-led measures. Their environmental effects remain largely uncertain at this stage, as scheme components are not yet defined, but any benefits are likely to arise through reduced car use at peak times, safer cycling conditions or moderated traffic speeds.

Overall, the programme is environmentally characterised by neutral to slightly positive effects, with no pathways to significant adverse impacts.

### **Economic:**

The economic effects of the programme are generally slight, reflecting its focus on maintaining safe conditions, reducing collisions and supporting reliable local travel rather than unlocking new development or altering strategic transport patterns. Across interventions such as the Road Safety Programme, Crossing Point Upgrades, Speed Camera Installations, and A5105 Safer Roads, any economic benefit derives mainly from reduced collision costs, fewer incident-related delays and improved journey time reliability. These benefits are positive but incremental, contributing to slight improvements in local network efficiency without influencing broader employment, regeneration or investment patterns.

The School Streets and Safer Routes to School programmes may offer small benefits for access to education and local service reliability, while the A6 Lancaster–Preston Safety

and Connectivity Improvements offer more notable economic value by improving resilience and consistency on a key strategic corridor. Even in these cases, however, benefits remain moderate rather than transformative, as schemes focus on safety and flow rather than capacity or strategic growth. Behaviour-change programmes and training initiatives do not generate direct economic effects but may marginally reduce societal costs associated with collisions and improve longer-term travel independence for younger people.

The economic effects across the programme are slight to moderate beneficial, appropriately scaled to the nature of the interventions.

### **Social considerations:**

Social and health effects are the strongest area of positive impact within the Road Safety Programme. Measures aimed at reducing collisions, whether through infrastructure improvements, speed management, School Streets, training and education programmes, or safer crossings, directly support improved health and wellbeing (Objective 15). Reduced road danger encourages more walking and cycling, improves perceptions of safety and reduces the physical and psychological burden associated with high-risk road environments. Schemes such as School Streets, Safer Routes to School and Pointer Roundabout Cycling Improvements play a particularly important role in enabling active travel for children and families, supporting daily physical activity and improving confidence for vulnerable road users.

Equality benefits (Objective 16) are also achieved. Vulnerable groups, including older adults, disabled people, children, parents with pushchairs, lower-income households and those without access to a private car, benefit most from safer crossings, slower vehicle speeds and improved active travel environments. Behaviour-change programmes, especially those aimed at children and new road users, contribute further to social inclusion by building skills, reducing fear of using the network and increasing mobility choices.

Rural connectivity benefits (Objective 17) vary by scheme, but corridor-wide improvements such as the A6 Lancaster–Preston Connectivity Scheme and targeted interventions near rural schools can help improve access between dispersed communities and key services. Although many schemes are local in scale, their cumulative effect creates safer, more accessible environments that support broader social participation and wellbeing.

Overall, the programme's social performance is moderately to significantly beneficial, shaped by improved safety, increased active travel, and enhanced equality of movement across Lancashire.

## **Access and Integration of Sustainable Modes Investment Programme**

The programme would invest in transport interchanges to better connect active travel with public transport and support a shift to more sustainable journeys.

**Environmental considerations:**

Across the programme, which includes the Darwen Station Access Improvements, Integrated Transport Hubs, Access for All schemes (both development and future phases) and the Clitheroe Interchange Improvements, environmental effects are generally neutral to slightly positive, reflecting the focus on enhancing accessibility within existing urban transport assets rather than delivering new infrastructure. As works are mainly confined to station forecourts, footways, crossings and interchange areas, impacts on biodiversity, designated sites, soils, geodiversity and the water environment (Objectives 1–2 and 9–11) are largely neutral, with no meaningful land-take anticipated and most activity involving small-scale surfacing, kerb or layout adjustments.

The programme performs slightly better in relation to air quality (Objective 3) and carbon (Objective 5), as improved access to rail and bus stations, particularly through upgraded footways, step-free provision and clearer interchange routes, supports modal shift away from private car travel. These benefits are modest but consistent across the programme.

Minor improvements to noise environments (Objective 4) may also arise where pedestrian routes become more attractive and vehicle dominance is reduced around station gateways.

The primary area of potential environmental risk relates to cultural heritage (Objective 7). Several schemes interface with conservation areas or historic station buildings, meaning public-realm changes to materials, surfacing or street furniture could affect townscape or heritage settings if not sensitively designed. These impacts remain uncertain pending detailed design but are likely to be manageable at project level. Similarly, the improvements to the public-realm could also enhance the local conservation areas with careful design.

Resource use (Objective 12) presents the only consistent slight adverse effect, linked to construction materials and waste from smaller-scale upgrades.

Overall, the programme shows a balanced environmental profile, with modest positive outcomes for air quality and carbon offset by minor heritage-related risks and construction resource use, and neutral effects across most environmental receptors due to the urban, low-intervention nature of the schemes.

**Economic considerations:**

This programme performs relatively positive, with benefits arising from improved station accessibility, enhanced interchange quality and better integration between rail, bus and active travel networks. Schemes such as the Darwen Station Access Improvements, Integrated Transport Hubs and Access for All development work cumulatively strengthen Lancashire's transport gateways, supporting more efficient movement to employment, education and urban centres (Objective 13). These improvements enhance the everyday usability of the network rather than fundamentally altering connectivity patterns, but they contribute meaningfully to local economic resilience and the attractiveness of public transport for commuting.

The programme also aligns strongly with transport–land use integration (Objective 14). Development-stage work for Access for All schemes and early design activity for interchange upgrades provide the foundation for future investment in accessible rail infrastructure, ensuring future delivery aligns with regeneration priorities and local plan ambitions. Improved interchange environments in Preston, Blackburn and Clitheroe also reinforce the economic role of these hubs as gateways to town centres and service nodes, supporting footfall, visitor activity and the integration of sustainable modes with wider regeneration programmes.

Overall, the programme supports incremental but important economic benefits, improving the efficiency and connectivity of the existing transport system and strengthening user experience in ways that underpin wider growth and regeneration objectives.

### **Social considerations:**

Social outcomes across the programme are strongly positive, reflecting the focus on improved accessibility, inclusive design and enhanced connections between modes. Upgrades to footways, crossings and station access routes alongside the development of future Access for All schemes, directly support health and wellbeing (Objective 15) by making active travel to rail stations safer, reducing severance and enabling more people to walk or wheel as part of their journeys. Enhanced interchange environments and clearer route legibility also reduce travel stress and improve comfort, particularly for users who face mobility or confidence barriers.

The programme performs particularly well against equality of opportunity (Objective 16). Schemes that progress step-free access, improve pedestrian priority and deliver clearer interchange layouts disproportionately benefit disabled users, older people, carers, individuals with mobility impairments and those without access to a private car. This results in a notable reduction in transport inequalities and expands opportunities for independent, confident movement.

Benefits for rural connectivity (Objective 17) are also positive, especially where improvements at Clitheroe Interchange and major regional hubs enhance access for residents of surrounding rural catchments who rely on these stations for onward travel. While some works occur in urban environments, improved gateways and better multi-modal integration extend their influence beyond the immediate station footprint.

The programme offers moderate to significant social benefits, strengthening inclusivity, accessibility, and wellbeing across a wide cross-section of Lancashire’s communities.

## **Public Realm Investment Programme**

Transport plays an important role in making our cities, towns, and local communities more inclusive and attractive places. We would deliver a transformational programme of regeneration schemes, putting pride back in our places, and supporting the ease of movement across our diverse and unique civic landscape.

Our city and town centres are places where the highest number of walking and cycling trips occur. Therefore, we need to prioritise improvements to active travel to make it an attractive, safe and practical choice.

**A Public Rights of Way Improvement Plan** is proposed for this programme. This strategy addresses Public Rights of Ways' role in enabling active travel, exercise and access to the countryside.

### **Environmental considerations:**

Across the programme, including initiatives such as the Active Vibrant Town Centres package, Safer, Greener, Healthier Streets, Blackpool and Lancaster improvements, Queen Street enhancements, Penwortham Town Centre, Destination Darwen, St Anne's Pier Link and the Pride in Place Programme, the environmental profile is characterised by mostly neutral to slightly positive effects, with localised risks around heritage and townscape. As the interventions are concentrated within existing town centres, high streets and established public-realm corridors, effects on biodiversity, designated sites, soils, geodiversity and the water environment (Objectives 1–2 and 9–11) are generally neutral, with no significant land-take anticipated and works confined to already urbanised settings.

The primary area of environmental uncertainty relates to cultural heritage and townscape (Objective 7), as many schemes operate within or adjacent to conservation areas or historic townscapes in Burnley, Great Harwood, Colne, Fleetwood, St Anne's, Darwen and Blackpool. Changes to materials, surfacing, lighting, street furniture or public-realm layouts could alter the character of sensitive settings if not carefully designed. These risks range from minor to moderate adverse but remain manageable through heritage-led design and project-level assessment. Conversely, the townscapes could be enhanced through careful design, but a pre-cautionary approach has been utilised in this instance.

Positive effects are most evident for air quality, noise and carbon (Objectives 3–5). Public realm upgrades, active travel corridors, greening, traffic calming, and improved permeability all support a gradual shift towards walking, wheeling and cycling, reducing short car trips and improving micro-scale environmental conditions. Schemes such as Penwortham Town Centre, St Anne's Pier Link, Lancaster public realm and the Pride in Place Programme deliver cumulative benefits for low-carbon mobility and climate resilience (Objective 6), although these remain small to moderate in scale.

Across the programme, slight adverse effects arise in relation to resource use (Objective 12) due to construction materials, resurfacing and public-realm installations. These are short-term and not significant.

Overall, the Public Realm Programme performs positively but not overwhelmingly across environmental objectives—reducing emissions, improving public-realm quality and supporting cleaner, greener town centres, while managing heritage-related risks in sensitive locations.

### **Economic considerations:**

Across all schemes, the programme delivers consistently moderate economic benefits, supporting the vitality, resilience and attractiveness of Lancashire's town centres. Enhancements across Burnley, Accrington, Great Harwood, Colne, Fleetwood, Skelmersdale, Darwen, Penwortham, Lancaster and Blackpool strengthen the functionality and appeal of high streets by improving public spaces, access routes, legibility and movement patterns. These improvements help stimulate footfall, dwell time and local business activity, supporting local economies and strengthening town centres as inclusive service and employment hubs (Objective 13).

Public realm and access improvements also enhance the visitor experience, with notable benefits in locations such as St Anne's, Blackpool, Fleetwood and Darwen, where improved pedestrian connections, wayfinding and heritage interpretation support tourism, leisure and cultural activity. While these effects are not transformative at the county-wide scale, they meaningfully contribute to the health and resilience of local economies.

The programme also aligns strongly with integrated transport and land-use planning (Objective 14). Schemes such as Penwortham Town Centre, Pride in Place improvements, and the Active Vibrant Town Centres package reinforce wider regeneration frameworks and ensure that town centres remain well-connected nodes within the transport network. Better pedestrian and cycling infrastructure strengthen sustainable access to shops, services, employment and education, supporting economic inclusion and reducing barriers to town-centre accessibility.

Overall, the economic impact of the Public Realm Programme is moderately beneficial, reflecting cumulative gains in town-centre performance, regeneration alignment and enhanced accessibility.

### **Social considerations:**

Social effects across the programme are strongly positive, with multiple schemes contributing directly to improved wellbeing, accessibility and community connectivity. Enhancements to walking, wheeling and cycling routes, safer crossings, greener streets and more inclusive public spaces, seen across schemes in Great Harwood, Burnley, Colne, Darwen, Penwortham, Lancaster, Blackpool and under the Pride in Place Programme support health and wellbeing (Objective 15) by encouraging physical activity, improving perceptions of safety, reducing traffic dominance and creating more sociable, welcoming public environments.

The programme also performs very well in relation to equality of opportunity (Objective 16). Improved footways, step-free access routes, safer pedestrian environments, clear wayfinding and inclusive design benefit groups who face the greatest barriers to mobility, including disabled residents, older people, families with children and those without access to a private car. Schemes that enhance town-centre permeability and public-realm quality improve confidence, independence and freedom of movement for a wide range of users.

Rural connectivity (Objective 17) is positively influenced by the programme where strengthened town-centre environments act as crucial service hubs for surrounding rural and semi-rural areas. Improvements in places such as Clitheroe, Fleetwood, Penwortham and Darwen enhance access to employment, services, green spaces, retail and leisure opportunities for residents of nearby villages and outlying communities.

The Public Realm Programme delivers moderate to significant social benefits, helping create healthier, more inclusive and more accessible town centres that support community wellbeing, reduce inequalities and improve everyday mobility.

## **Severance Reduction Investment Programme**

Our roads and railways provide essential connections between places. However, they can also create physical barriers which can lead to fragmentation of communities and constrain opportunities for active travel and integrated growth. To address these challenges, schemes including adjustments to traffic signals and upgraded crossings would be implemented to promote active travel and rebalance the use of streets and roads. This would be supplemented by the road safety programme which includes crossing upgrades supported by road safety funding.

### **Environmental considerations**

This programme, comprising of small-scale accessibility measures such as dropped crossing upgrades, pelican crossing replacements and pedestrian prioritisation adjustments, environmental effects are neutral, reflecting the minimal and highly localised nature of the interventions. Works would likely take place entirely within the existing highway boundary, involving only minor kerb adjustments, resurfacing, tactile paving, or updates to signal equipment, meaning that there is no land-take or interaction with environmentally sensitive receptors.

As a result, effects on biodiversity, designated sites, landscape, soils, geodiversity and the water environment (Objectives 1–2 and 8–11) are neutral, with any temporary construction disturbance (noise, dust or short-term traffic management) being negligible and non-significant.

Potential positive effects are limited but possible, improvements to crossing quality and pedestrian priority can create safer and more direct walking and wheeling routes, encouraging a marginal shift in short trips from vehicle use to walking. This may support slight improvements to air quality (Objective 3) and carbon emissions (Objective 5), particularly around schools, shops and local centres where crossing points currently present barriers. However, these effects remain modest and localised. Resource use (Objective 12) presents the only minor adverse element due to the small quantity of materials and waste generated, though this is limited in scale and readily mitigated.

Overall, the programme is a neutral environmental profile, with no pathway to significant adverse effects and only small, localised benefits arising from safer, more attractive pedestrian movement.

### **Economic considerations:**

Economically, the programme delivers slight but positive benefits, reflecting the role of improved pedestrian facilities in supporting more reliable and efficient access to schools, employment areas, shops and community facilities. Enhancing crossing points and making pedestrian priority more consistent can reduce delays for people walking or wheeling, improve access to town-centre amenities and support the functioning of local service economies (Objective 13). While these effects promote day-to-day accessibility, particularly for disabled residents, older adults and parents with prams, they remain small in scale and do not influence wider development patterns or strategic transport connectivity.

The programme's alignment with transport–land use coordination (Objective 14) is also minor but positive. Upgraded crossings support walkability within established neighbourhoods and town centres, helping reinforce the accessibility of local services and reducing reliance on private vehicles for short trips. However, because the measures are maintenance-scale rather than transformative, their economic contribution is supportive rather than structural.

Overall, economic effects are slight, localised and beneficial, enhancing everyday access without affecting long-term growth or spatial planning outcomes.

### **Social considerations**

Social outcomes represent the most meaningful area of benefit within this programme. Improvements to dropped crossings, pelican crossings and pedestrian priority directly support health and wellbeing (Objective 15) by reducing road danger, making walking routes safer and helping more people travel independently. These interventions particularly benefit vulnerable groups, including disabled users, mobility-impaired residents, older people, children and those without access to a car, who may otherwise face barriers to crossing busy roads or negotiating inconsistent kerb heights.

The programme also performs strongly in relation to equality of opportunity (Objective 16). More accessible and predictable pedestrian facilities reduce inequities in the transport network, helping ensure that daily activities, such as accessing education, employment, healthcare and local shops, are not restricted by mobility limitations. Although these are modest interventions, the cumulative effect across neighbourhoods can meaningfully improve inclusivity and dignity in local travel.

Benefits for rural connectivity (Objective 17) are limited but can be slightly positive where crossing upgrades support safer movement in small towns or villages serving dispersed communities. However, the interventions are generally urban or suburban in focus and do not directly reshape rural accessibility patterns.

Overall, the programme delivers moderately positive social effects, driven by improved safety, inclusion and independence for a wide range of users, even though impacts remain localised and not strategic.

## Supporting Growth and Regeneration Investment Programme

To support a thriving Lancashire, we need to provide transport infrastructure to enhance existing and unlock new developments. Our growth ambitions are supported by Local Plans which coordinate new development and regeneration opportunities. Delivery of these schemes would be contingent on development coming forward and securing adequate financial contributions to mitigate against any adverse impacts on the network.

### Environmental considerations

Environmental performance across the programme varies significantly, reflecting a mix of public realm improvements, town-centre accessibility schemes, and strategic growth-enabling transport interventions. Schemes such as the Penwortham Town Centre S278 Scheme, Lancaster Road Public Realm Improvements, Clitheroe Sustainability Package and Destination Darwen are predominantly focussed on active travel, placemaking and town-centre enhancement. As such, they are expected to result in largely neutral to slight beneficial environmental effects. Improvements to pedestrian and cycling environments, greening measures and reduced vehicle dominance have the potential to contribute to better air quality (Objective 3), reduced carbon emissions (Objective 5) and enhanced townscape quality (Objective 8). These interventions sit within existing urban fabric, and therefore impacts on biodiversity, soils, geodiversity and the water environment (Objectives 1–2 and 9–11) are generally neutral, with some uncertainty linked to drainage and construction-phase disruption.

Public realm schemes in St Anne's, Blackpool and Great Harwood also show this pattern. Although there is potential for minor adverse effects on heritage assets or townscape character (Objective 7), particularly where works occur in conservation areas or prominent seafront settings, these risks are expected to be manageable through sensitive design, materials and project-level heritage assessment. In coastal areas such as St Anne's and Blackpool, proximity to HRA and SSSI-designated sites introduces some uncertainty regarding effects on biodiversity and water quality, but these are again expected to be localised and capable of mitigation through appropriate construction and environmental management.

By contrast, more growth-enabling transport infrastructure, most notably the A666 Jack Walker Way South Junction Improvements, Huncoat Garden Village Access, and the highly uncertain Local Plan Transport Package, presents a more mixed environmental profile. Enabling new highway capacity and facilitating development tends to introduce moderate adverse impacts on biodiversity (Objectives 1–2), carbon emissions (Objective 5), noise (Objective 4), soils and water (Objectives 10–11), particularly where schemes extend into undeveloped or semi-natural areas. Land take, habitat fragmentation and construction-related disturbance are the primary drivers of these effects, and environmental performance is further complicated by uncertainties in design and future traffic volumes. These schemes therefore represent the most environmentally impactful components of the programme, although their effects remain proportionate to their role in unlocking significant growth.

Overall, the environmental profile of the programme ranges from locally beneficial where schemes are focussed on town-centre placemaking and active travel, to moderately adverse where enabling infrastructure supports large-scale development.

### **Economic considerations**

This programme performs strongly against economic objectives, reflecting its collective focus on improving town-centre environments, enabling strategic development and enhancing local accessibility. Town-centre schemes such as Penwortham Town Centre, St Anne's Pier Link, Great Harwood Queen Street, Blackpool Public Realm Improvements and Destination Darwen are expected to deliver moderate beneficial economic effects by supporting increased footfall, improved liveability, stronger visitor appeal and enhanced business conditions. Public realm interventions can enhance the attractiveness and functionality of high streets, supporting local retail resilience and investment confidence (Objective 13).

Larger-scale or enabling interventions, such as the A666 Jack Walker Way South Junction Improvement Scheme, generate major beneficial economic outcomes. By unlocking the Bog Height Link Road and facilitating planned development, the scheme plays a central role in delivering housing, employment and growth opportunities, supporting both local and sub-regional economic productivity. Similarly, the Clitheroe Sustainability Package and Preston Station Quarter Project strengthen town-centre accessibility, support regeneration frameworks and contribute to coordinated transport-land use planning (Objective 14).

The Local Plan Transport Package, though uncertain in environmental and social terms, also performs positively for the economy, as it enables the delivery of allocated growth sites by improving access, network capacity and strategic connectivity.

Economic benefits across the programme are therefore consistently positive, ranging from modest and locally focussed to significant and region-shaping, depending on the scale and function of each scheme.

### **Social considerations**

Social effects across the programme are strongly positive, with many schemes delivering substantial benefits for health, wellbeing, accessibility and equality. Public realm schemes, particularly Penwortham Town Centre, St Anne's Pier Link, Great Harwood Queen Street, Blackpool Public Realm Improvements, Destination Darwen and the Clitheroe Sustainability Package, deliver major benefits by creating safer, more attractive and more inclusive environments for walking, wheeling and cycling. These improvements support physical activity, mental wellbeing and positive perceptions of public space, aligning strongly with Objective 15.

Equality benefits (Objective 16) are also significant. Enhanced footways, safer junctions, improved lighting, clearer wayfinding and more accessible streetscapes disproportionately benefit groups who may otherwise face barriers to mobility, including older adults, disabled people, families with children and residents without access to a

private car. Many schemes directly support inclusive access to town-centre services, education, healthcare and employment.

Rural connectivity benefits (Objective 17) vary by scheme but are generally positive where improvements strengthen access to key centres serving rural hinterlands. This is most evident in Clitheroe, Penwortham, and elements of the Preston Station Quarter, where improved public realm and sustainable connections enhance access for residents travelling in from surrounding rural or semi-rural areas.

More infrastructure-led schemes, such as the A666 Jack Walker Way South Junction Improvements and Huncoat Garden Village Access, also deliver social benefits by improving strategic access to employment and services, though these outcomes are moderated by potential negative impacts from traffic growth and increased vehicle dominance. Social benefits for these schemes therefore remain moderate rather than major.

Overall, the programme offers strong social performance, shaped by the scale of public realm uplift, enhanced access to town-centre destinations and improved opportunities for healthier, more inclusive and more equitable travel choices across Lancashire.

## **Network Management, Maintenance and Incident Response Investment Programme**

This programme includes routine maintenance of tramway and highway infrastructure, technology upgrades for asset management, and targeted initiatives such as lane rental schemes and lighting improvements.

### **Environmental Considerations**

Across the programme, the environmental implications are predominantly neutral, reflecting the fact that most components, such as Tramway Maintenance, Highway Maintenance, traffic signal replacement works, lane rental arrangements, the upgraded maintenance management system, improved pothole repair contracting, AI-powered inspections and upgrades to maintenance management technology, are operational or routine maintenance activities that do not involve new construction or changes to network capacity. As these activities are confined to existing assets, there is no pathway for significant effects on biodiversity or ecosystem resilience (Objective 1), internationally designated nature sites (Objective 2), or on geodiversity, soils, water or the historic environment (Objectives 7, 9, 10 and 11).

Any short-term disturbance associated with routine works, including potential temporary effects on air quality (Objective 3) or environmental noise (Objective 4), would be minor, localised and managed through established maintenance protocols. As such, environmental outcomes across these screened-out elements are assessed as neutral.

Within this context, the Halogen Replacement Programme represents the only component with a meaningful environmental contribution, though the effects remain modest and network-wide. The shift from halogen to energy-efficient technologies

delivers a clear carbon reduction benefit (Objective 5) by lowering electricity consumption and helping reduce operational emissions associated with traffic signal infrastructure. These benefits are incremental but directionally positive, supporting Lancashire's wider transition toward a low-carbon transport network. Adaptation and resilience (Objective 6) also improve marginally, as modernised signal units tend to be more reliable under extreme temperatures and more resilient to failure, although these effects are limited to the performance of individual assets rather than the operation of the wider network.

Landscape and townscape (Objective 8) effects remain neutral, as all works occur within existing signal sites and do not alter the visual character of streetscapes. Effects on resource use (Objective 12) are slightly adverse, arising from the disposal of replaced equipment. However, these impacts are expected to be small in scale and can be substantially mitigated through responsible recycling and waste-management practices.

Overall, the programme presents a largely neutral environmental profile, with modest beneficial effects associated with carbon reduction and infrastructure resilience, and no significant risks of adverse environmental outcomes.

### **Economic Considerations**

From an economic perspective, many of the programme components provide administrative or operational efficiencies rather than delivering changes that would meaningfully influence development patterns, labour markets or wider economic connectivity. Schemes such as the upgraded Asset Management System, enhanced pothole repair contract, AI-powered highway inspections and improvements to maintenance management technologies generate internal efficiencies, supporting more responsive maintenance and potentially reducing long-term asset costs. However, these represent minor operational benefits and are not considered significant against the broader aims of promoting growth and job creation (Objective 13) or supporting strategic coordination of land-use and energy planning (Objective 14).

Routine maintenance activities, including tramway and highway maintenance and traffic signal replacement works, similarly maintain the functioning of existing assets but do not create new economic opportunities nor alter access to employment.

The Halogen Replacement Programme contributes more meaningfully by supporting network reliability and reducing the risk of signal-related delays or failures. By modernising ageing equipment, the programme reduces maintenance requirements and improves operational resilience, delivering moderate beneficial effects for both economic productivity and long-term asset management. Although it does not directly unlock new development land or create new connections, the improved dependability of the signalling network helps ensure that existing economic activity is supported by a smoothly functioning transport system.

On balance, economic impacts across the programme range from neutral to moderately positive, with material benefits primarily linked to improved operational reliability rather than the creation of new economic value.

## Social Considerations

Social implications across the programme are similarly modest, as most schemes are operational or maintenance-focused and do not introduce new infrastructure, changes in accessibility or impacts on community wellbeing. For the screened-out components, effects on health and wellbeing (Objective 15) and equality of opportunity (Objective 16) remain neutral, with no mechanism for disproportionate impacts on population groups. These schemes do not alter network conditions in ways that would influence perceptions of safety, severance, or access to services, and their impacts on rural mobility (Objective 17) are negligible.

The Halogen Replacement Programme again forms the principal source of socially beneficial effects, though these remain moderate and network-wide. The improved reliability of modern signal units enhances safety and journey predictability, supporting public wellbeing and reducing risks for vulnerable road users, including pedestrians, cyclists and those with mobility impairments (Objective 15). Enhanced operational dependability also improves accessibility, delivering modest but positive equality impacts (Objective 16), especially at signal-controlled crossing points that are critical for older people, disabled users and those with visual impairments. Rural areas may also experience small benefits (Objective 17), as consistent performance across the whole network supports equity in service reliability, even where individual interventions are minor.

Overall, the programme presents a neutral to slightly positive social profile, with no significant adverse effects and incremental benefits concentrated in improved safety, accessibility and user confidence at signal-controlled locations.

## Environmental Resilience Investment Programme

A Resilience Strategy has been proposed in the IP in direct response to the performance of schemes within this ISA, which highlighted a consistent limitation in climate resilience, connecting people with nature, response to extreme weather events, and the need for more structured, strategic thinking in this area.

Although the strategy itself is policy-based and does not lead to physical impacts within the plan period, its inclusion provides a framework for improving how future schemes address climate risks, green infrastructure, digital robustness and community resilience. In this way, it functions as a corrective measure to address issues identified through the ISA process and establishes clearer expectations for integrating resilience considerations into scheme development going forward.

### Socio-economic considerations:

The strategy is expected to deliver broadly positive long-term benefits by strengthening Lancashire's ability to manage and adapt to climate-related risks. Although the strategy does not result in direct impacts during the plan period, its coordinated approach helps reduce future disruption to infrastructure, businesses and communities, supporting economic stability, lowering recovery and maintenance costs, and improving investor

confidence in areas vulnerable to flooding, heat and extreme weather. By embedding climate resilience, green infrastructure and digital connectivity into strategic planning, the programme encourages efficient decision-making and provides a foundation for sustainable, cost-effective growth across the county.

Similarly, the strategy delivers important social gains by improving protection for communities most exposed to climate impacts and enhancing access to safe, high-quality green spaces. Strengthened emergency preparedness, better digital connectivity and more consistent resilience planning help ensure that support reaches those who are most vulnerable, including older residents, disabled people, lower-income households and isolated rural communities.

Over the longer term, the programme contributes to healthier, safer and more connected places, supporting wellbeing and reducing inequalities as Lancashire adapts to a changing climate.

## **Transport Technology, Data and Innovation Investment Programme**

This programme focuses on deploying intelligent transport systems, real-time information, and data-driven tools to improve network efficiency, reliability, and user experience.

**A Transport Data and Technology Strategy** is proposed for this programme. This would be a strategy building on from the LCC Technology Roadmap to drive consistency across the LCCA.

### **Environmental Considerations**

Most components of the programme, such as the Real-Time Transport Modelling Trial, Real-Time Passenger Information, Intelligent Bus Priority, the Bus Pinch Point Analysis Tool, traffic signal replacement works, collaborative traffic management, the Future Mobility Platform, the A6 Corridor Preston Technology Improvements, strategic transport models and the UTM upgrades have been screened out of detailed ISA assessment. These initiatives are operational, analytical or technology-focused and do not involve new physical infrastructure, land take, highway realignment or capacity changes. As such, they do not create any direct pathways for significant environmental effects across biodiversity, heritage, soils, landscape, water, air quality, noise or carbon emissions (Objectives 1–12). Although some interventions may generate minor indirect improvements in traffic flow or public transport reliability, their overall environmental footprint is negligible and not sufficiently substantial to require detailed assessment at this plan level.

The one assessed scheme, Implementation of the Route Management Strategy on North Valley Road, Colne, is expected to deliver overall neutral to slight beneficial environmental effects. Optimisation of traffic signals and completion of linking between junctions can smooth traffic flow, reduce stop-start conditions and support small improvements in air quality (Objective 3) and carbon emissions (Objective 5). These

benefits are modest but meaningful in a corridor affected by congestion. The works remain confined to existing highway land and involve no new construction or land take, resulting in neutral effects on biodiversity, soils, landscape, heritage and water environments (Objectives 1–2, 8–11). No significant adverse environmental effects are anticipated.

### **Economic Considerations**

Although most of the programme's technology and data-driven interventions do not require detailed ISA assessment, they collectively provide positive operational benefits that underpin wider economic performance. Improvements to real-time data sharing, traffic control, incident response and asset management support a more reliable and efficient highway and public transport network, helping to maintain productivity, reduce disruption and enhance the predictability of travel times. These effects are indirect but valuable, and while not scored individually, they contribute to a more resilient transport system that supports economic activity across Lancashire (Objective 13).

The Route Management Strategy for North Valley Road RMS implementation delivers clearer, assessable economic benefits. By reducing journey time variability and improving the consistency of travel along a key route between Colne and West Yorkshire, the scheme enhances the efficiency of freight, commuting and business movement. This improved network performance supports local business resilience and strengthens cross-boundary connectivity, contributing positively to Objective 13.

Although it does not introduce new capacity, the optimisation aligns well with coordinated transport–land-use planning (Objective 14), improving the functioning of a strategic corridor without facilitating additional car-dependent growth. Economic effects are therefore assessed as moderately beneficial.

### **Social Considerations**

Social effects across the wider programme are limited for most initiatives due to their operational and digital nature and therefore screened out. Interventions such as real-time information, intelligent bus priority and UTMC upgrades can improve the experience of public transport users, enhance journey reliability and reduce stress, but these effects are minor, diffuse and not significant enough to warrant detailed assessment at this plan level. Nonetheless, these initiatives collectively contribute to a transport system that is easier to navigate and more responsive, offering incremental benefits for accessibility and user confidence.

The Route Management Strategy for North Valley Road implementation provides more substantive social benefits and is therefore assessed fully. Improved journey time reliability, reduced congestion and smoother traffic flows enhance day-to-day travel for residents, workers and bus users, supporting improved wellbeing through reduced travel stress and enhanced air quality (Objective 15).

The scheme also performs positively in relation to equality of opportunity (Objective 16), as more reliable travel improves access to services, employment and education for people who rely on bus services or regular commuting. Rural connectivity benefits

(Objective 17) are also evident, as enhanced east-west movement strengthens links between communities in East Lancashire and West Yorkshire, supporting wider social and economic participation.

## **Electric Vehicle Investment Programme**

The electrical vehicle programme focuses on enabling the transition to low-emission vehicles through charging infrastructure and supporting measures.

### **Environmental Considerations**

This programme delivers strong long-term environmental benefits by reducing greenhouse gas emissions and improving air quality. Construction may involve localised effects on land and biodiversity, requiring mitigation. Overall, the programme aligns strongly with decarbonisation objectives and supports Lancashire's climate commitments.

### **Economic Considerations**

Economic benefits are significant in the long term, as EV infrastructure supports the transition to cleaner transport, reduces fuel costs, and enhances regional competitiveness. Early feasibility work ensures Lancashire is well-positioned to attract investment and meet future demand. While upfront costs are high, the programme offers strong value through operational savings and alignment with national policy.

### **Social Considerations (Health, Equality, Rural Needs)**

Social impacts are positive, particularly for health outcomes through improved air quality and reduced exposure to pollutants. Equality considerations include ensuring equitable access to charging infrastructure across urban and rural areas, avoiding concentration in high-income locations. Feasibility studies should incorporate rural connectivity and affordability to prevent transport exclusion.

## **Parking Investment Programme**

This programme provides a strategic framework to ensure that the quantity, quality and distribution of parking across Lancashire is planned in a way that supports the wider functioning of places, encourages sustainable travel, and helps manage movement through busy urban centres. By adopting a big-picture approach, the programme recognises parking as an integral component of the transport system rather than a standalone asset, emphasising the need to balance accessibility with effective land use, network performance and environmental considerations. By ensuring appropriate levels of parking, this supports the efficient operation of town centres, neighbourhoods, employment areas and stations, helping them remain attractive, accessible and economically resilient.

### **Environmental Considerations**

The programme acknowledges the role that well-managed parking should reduce transport-related environmental impacts. Effective parking enforcement and management can help reduce congestion and circulation traffic, thereby supporting improved local air quality and lowering carbon emissions associated with unnecessary vehicle movements.

### **Socio-Economic Considerations**

From a social perspective, the programme aims to improve safety, accessibility and the overall experience of residents, visitors and businesses. Better-managed parking can reduce conflict between vehicles and pedestrians, improve loading arrangements, and support safer streets, particularly in busy centres or near community facilities.

Economically, the programme contributes to the resilience and competitiveness of town centres and employment areas by ensuring that parking supports footfall, customer access, and efficient commercial operations. Reliable, well-planned parking helps reduce delays for service and delivery vehicles, improves business confidence, and supports investment by helping places operate smoothly. A consistent, evidence-based approach to parking management also enables long-term economic planning, ensuring that land is used effectively and that parking provision aligns with broader regeneration and growth objectives.

Overall, the parking programme enhances the IP by providing a structured approach to managing one of the most influential elements of local transport behaviour. It supports more efficient use of land, improves accessibility and circulation in key areas, and ensures that parking policies complement, rather than undermine, wider transport and place-making objectives.

### **First and Last Mile Freight Investment Programme**

The programme recognises that efficient goods movement relies on well-managed connections at the beginning and end of freight journeys, where interactions between strategic routes, urban streets and final delivery points are most pronounced. Urban areas particularly town centres often experience conflict between large delivery vehicles and sensitive public spaces, leading to congestion, safety issues, noise, and local emissions. By exploring opportunities for micro-consolidation and the use of smaller, cleaner vehicles such as electric vans and cargo bikes, the programme aims to reduce the physical and environmental footprint of freight activity while supporting smoother, safer and more predictable operations.

The proposed First and Last Mile Freight Study would assess how goods currently move between major corridors and their destinations, identifying barriers, pinch-points and opportunities for more efficient and sustainable approaches. This evidence base would help shape future delivery models, ensuring that freight activity supports rather than detracts from the quality of town centres, residential areas and key employment zones. It would also provide a clearer understanding of how to manage access, kerb space and

loading in constrained environments, helping to balance the needs of logistics providers, retailers, service vehicles and other road users.

### **Environmental Considerations**

Efficient freight operations depend on smooth connections at the beginning and end of journeys, yet these locations, often within town centres and other sensitive urban areas, frequently experience pressures associated with large delivery vehicles, including congestion, safety concerns, noise and local emissions.

By considering opportunities such as micro-consolidation, improved delivery management, and the potential use of smaller or cleaner vehicles, the study provides a framework to explore ways of reducing the environmental footprint of freight activity, including air quality impacts, carbon emissions and disturbance.

### **Economic Considerations**

Economically, the study should assess barriers and pinch-points that affect the efficiency and reliability of freight movements, helping to identify opportunities for smoother operations, reduced delays and improved productivity for local businesses. Developing a stronger evidence base will support future policy and investment decisions, ensuring that freight activity continues to enable economic growth while being compatible with wider sustainability and place-making objectives.

### **Social Considerations**

From a social perspective, the study should help identify approaches that reduce conflict between freight vehicles and pedestrians, cyclists and other road users in constrained areas, supporting safer, more attractive and more accessible public spaces.

Overall, this programme strengthens the IP by providing the strategic understanding needed to modernise freight activity, reduce its impact on communities, and create a more efficient and environmentally responsible approach to urban deliveries. It ensures that future freight policies are informed by local evidence, aligned with broader sustainability goals, and capable of supporting a more vibrant and accessible urban environment.

## **Strategy Review**

The strategies collectively operate as an extension of the core LTP strategy, ensuring that the IP is supported by a stronger and more coherent policy framework. They help address wider issues highlighted through this ISA (such as the need for more consistent climate resilience thinking across schemes) and provide a structured basis for improving future scheme development where gaps have been identified.

In doing so, the strategy suite enables the IP (and future IPs) to respond more effectively to long-term challenges, ensuring that subsequent project design and prioritisation are better aligned with the strategic direction already established by the LTP.

## HIA Summary and Findings

The cumulative assessment of health-related Objective 15 and its sub-objectives indicates a generally positive trend, with the most common score being ++ (**Moderate beneficial**). This reflects strong contributions from schemes that improve accessibility to health and leisure services, enhance safety, and strengthen community connectivity. These outcomes are particularly associated with active travel initiatives and integrated transport improvements, which support healthier lifestyles and reduce accident risks.

However, the presence of several neutral (0) scores, particularly for affordability, access to public transport, and active travel, suggests that benefits are not evenly distributed across all health objectives. Additionally, uncertainty remains for pollution-related health impacts (air, noise, odour, and light), highlighting the need for further design-stage assessment and mitigation.

Overall, while the plan demonstrates clear potential to improve health and well-being, these effects are not considered significant at this strategic level. To maximise benefits, targeted measures should focus on improving affordability, embedding active travel in schemes, and addressing environmental health risks through robust mitigation.

Further information can be found in Appendix C.

## EqlA Summary and Findings

The cumulative assessment of EqlA Objective 16 and its sub-objectives indicate a generally positive trend, with the most common score being ++ (**Moderate Beneficial**). This reflects strong contributions from schemes that improve accessibility, enhance safety, and reduce severance, supporting equality of opportunity across the transport network. However, neutral scores for affordability and uncertainty regarding pollution reduction highlight areas where benefits are less certain.

Overall, while the plan demonstrates clear potential to improve equality outcomes, these effects are not considered significant at the strategic level. Targeted measures to address affordability, embed environmental health protections, and strengthen rural transport provision would be essential to maximise positive impacts

Further information can be found in Appendix C.

## Rural Needs Summary and Findings

The cumulative assessment of rural-related objective 17 and its sub-objectives indicates a generally positive trend, with the most common score being ++ (**Moderate beneficial**) for both improving rural accessibility (17a) and enabling economic growth in rural and coastal areas (17b). This reflects strong contributions from schemes that enhance

connectivity through road and rail improvements, support employment diversification, and strengthen links between rural communities and regional economic hubs. These outcomes are particularly associated with integrated transport hubs, corridor upgrades, and active travel initiatives, which collectively improve access to jobs, services, and opportunities.

However, the prevalence of neutral (0) scores for sub-objective 17c connecting people with nature, suggests that environmental and recreational benefits are not consistently embedded across the programme. While some schemes, such as active travel and sustainable transport packages, offer positive contributions, these are often secondary to economic and transport priorities. This highlights a gap in integrating green infrastructure and nature-based access within major infrastructure projects.

Overall, the plan demonstrates clear potential to meet rural needs and drive inclusive growth, but these effects are not considered fully comprehensive at this strategic level. To maximise benefits, targeted measures should focus on embedding nature connectivity into transport design, ensuring equitable access for remote communities, and aligning infrastructure delivery with wider sustainability and well-being objectives.

Further information can be found in Appendix C.

## **Carbon and Climate Summary and Findings**

The IP demonstrates some benefits for both reducing carbon emissions and strengthening climate resilience, however, the overall scores of + Slight Beneficial for Objective 5 and Uncertain for Objective 6 indicate that effects remain not significant at this stage.

While rail, active travel and wider sustainable transport schemes offer the strongest positive contributions, supporting modal shift, reduced emissions and improved long-term resilience, these benefits are moderated by several highway and growth-enabling schemes that introduce embedded carbon, induced traffic risks and uncertainty around flooding, drainage and material impacts.

With the application of targeted mitigation, including Whole-Life Carbon Assessment, low-carbon materials, SuDS, permeable and heat-resilient surfacing and the wider measures set out in the proposed Resilience Strategy, the IP has potential to strengthen performance and progress towards achieving significant beneficial effects for both climate mitigation and adaptation.

Further detail on the Carbon and Climate Change Assessment can be found in Appendix D.

## Habitats Regulations Assessment Summary

The Habitats Regulations Assessment (HRA) undertaken for the IP confirms that many schemes are unlikely to result in significant effects on European or Ramsar sites due to their scale, location, or nature as improvements within existing transport corridors.

A small number of schemes were identified where potential pathways for impact could not be ruled out at this strategic stage, primarily due to limited scheme design information and their proximity to sensitive habitats.

These schemes will therefore require more detailed project-level HRA to ensure that any risks to designated sites are fully assessed and appropriately mitigated. With these safeguards in place, the IP is considered capable of being delivered without adversely affecting the integrity of any Habitats Sites.

A separate, standalone HRA report has been prepared to support the IP and provides the full screening and Appropriate Assessment findings.

## Summary

The investment programmes within the IP collectively present a diverse range of environmental, economic and social effects, reflecting the mix of sustainable transport interventions, growth-enabling highway schemes, public-realm improvements, behavioural initiatives and technology-driven enhancements.

From an environmental perspective, the strongest positive impacts arise from programmes that shift travel away from private vehicles and towards low-carbon modes. Rail investment, mass transit development, active travel networks, public-realm improvements and bus priority upgrades all contribute positively by reducing emissions, improving air quality and supporting long-term carbon reduction. These benefits are reinforced where schemes enhance gateway access to stations, create safer conditions for walking and cycling, or integrate electric and low-emission transport into future options.

Conversely, environmental risk is more pronounced in programmes associated with additional road capacity, new site access or strategic highway interventions. Where schemes extend into undeveloped corridors or sensitive landscapes, there is greater potential for adverse effects on biodiversity, soils, water and heritage settings, particularly during construction and where design detail is not yet established. Freight infrastructure proposals, rail reinstatements and development-enabling junction improvements also bring higher uncertainty, as their long-term environmental effects depend on alignment, scale and mitigation. Operational programmes, such as bus service improvements, behavioural initiatives, community transport, maintenance and technology upgrades, are largely neutral in environmental terms, as they do not involve physical works.

The economic impacts of the IP are consistently positive and, in some cases, transformative. Rail enhancements, strategic corridor improvements, access to major

employment sites, station upgrades and town-centre public realm programmes all play a substantial role in strengthening economic resilience across Lancashire. These programmes improve labour-market access, enhance connectivity to key employment and education hubs, support growth in high-value sectors and reinforce the vitality and competitiveness of town centres. Growth-enabling transport schemes perform strongly by unlocking development land, facilitating regeneration and supporting long-term investment trajectories.

Even where interventions are smaller in scale, such as bus reliability improvements, PRow enhancements, technology upgrades or behavioural programmes, they still contribute indirectly to economic participation by making travel more predictable, reducing delays and supporting access to services. Maintenance and operational schemes largely sustain existing economic activity rather than fundamentally reshaping it, but they nonetheless help maintain network performance and reduce future costs.

The social outcomes across the programmes are the most uniformly positive. Investments that improve walking, wheeling and cycling conditions, enhance public realm, strengthen accessibility at stations, improve public transport reliability or support community and rural mobility consistently deliver substantial benefits for health, wellbeing, inclusion and equity. Many schemes reduce severance, create safer environments, improve confidence for vulnerable users and widen access to essential services such as healthcare, education and employment. Programmes focused on equality of access, including Access for All, community transport, safer crossings and improved interchange design, provide meaningful benefits for older residents, disabled people, families, young people and those without access to private vehicles.

Rural communities benefit particularly from enhanced rail and bus connections, PRow improvements, community transport provision and upgrades to interchanges that serve wider catchments. Behaviour-change programmes complement these physical interventions by helping more people adopt healthier and more sustainable travel habits, reinforcing long-term social benefits.

While some highway-focussed schemes can introduce localised traffic or amenity challenges, they still support improved access to employment and services, typically resulting in moderate rather than negative social effects.

## 9 Cumulative Impacts

Cumulative impacts occur when the combined effect of multiple schemes within the IP, and their interaction with other plans and projects, results in a greater overall impact than the sum of individual effects. These impacts can be spatial (affecting the same area), temporal (occurring over time), or thematic (affecting the same environmental or social receptor). Assessing cumulative impacts is essential to ensure that strategic decisions consider broader sustainability implications and avoid unintended consequences.

### 'Whole plan' Effect

The whole plan effect provides an overview of the cumulative influence of all proposed schemes on each ISA objective. Rather than focusing on individual interventions, this assessment considers the dominant trend across the entire plan, identifying whether the combined effect is broadly beneficial, adverse, neutral, or uncertain.

By summarising the most common score for each objective, this approach highlights where the plan is likely to deliver significant benefits, where risks or adverse impacts may arise, and where further analysis or mitigation is required. It offers a strategic perspective on how the plan aligns with sustainability goals and informs decision-making at a holistic level.

#### ***ISA Objective 1: Biodiversity***

ISA Objective	Overall score
Protect and enhance biodiversity, promote ecosystem resilience and functionality and contribute to the achievement of Biodiversity Net Gain and the delivery of the Nature Recovery Network	Mixed
For this objective, the plan is uncertain, neutral, and mixed, with only limited clear beneficial or adverse scores. This indicates that, at this stage, the effects of the proposals on biodiversity are not well defined, and many depend heavily on scheme-level design and mitigation. Overall, no significant effects, positive or negative, are strongly evidenced, and further detail would be required to determine likely outcomes.	

#### ***ISA Objective 2: Internationally Designated Sites***

ISA Objective	Overall score
Protect and enhance sites designated for their international importance for nature conservation purposes	0 (neutral)

The plan is neutral or uncertain, suggesting that many proposals are unlikely to have direct impacts (beneficial or adverse) on internationally designated sites. While a small number of adverse scores appear, these do not dominate the scoring. Overall, effects are generally not significant, but uncertainties highlight the need for project-level assessment where potential pathways exist.

### **ISA Objective 3: Air Quality**

<b>ISA Objective</b>	<b>Overall score</b>
Protect and improve air quality	+ (Slight beneficial)
<p>Most schemes show a concentration of slight to moderate beneficial scores, indicating that many proposals are expected to contribute positively to improved air quality. Some neutral, uncertain, and mixed scores remain, reflecting variation between interventions. Overall, the direction of impact is broadly beneficial, though mostly not significant at plan level.</p>	

### **ISA Objective 4: Noise**

<b>ISA Objective</b>	<b>Overall score</b>
Reduce the impact on environmental noise from transportation sources	Mixed
<p>Scores for noise show mixed, uncertain, and neutral effects, with smaller numbers of positives and negatives. This suggests a complex and context-specific relationship, where improvements (e.g., modal shift) may be offset by potential increases in activity or construction impacts. Effects are therefore varied and not clearly positive or negative overall.</p>	

### **ISA Objective 5: Carbon Emissions**

<b>ISA Objective</b>	<b>Overall score</b>
Reduce carbon emissions from transport and contribute to meeting the UKs net zero carbon target	+ Slightly Beneficial
<p>This objective is dominated by moderate and slight beneficial scores, alongside some uncertainty. Overall, the programme shows a clear tendency to support carbon reduction, although the strength of benefit varies across proposals. Effects are largely beneficial, with some potential for significant positive effects where strong emission reductions are anticipated.</p>	

**ISA Objective 6: Climate Adaptation**

ISA Objective	Overall score
Maximise adaptation and resilience of the transport network to the effects of a changing climate, including through reducing the risk of flooding	Uncertain
This objective highlight mostly slight beneficial or uncertain. Many proposals show potential to improve resilience or reduce flood risk, but the extent of benefit depends on design detail and implementation. Overall, the effects are positive but remain largely not significant at this stage	

**ISA Objective 7: Cultural Heritage**

ISA Objective	Overall score
Protect and enhance cultural heritage assets and their settings, and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	Uncertain
Most scores are uncertain, reflecting limited information on specific locations, settings, or heritage sensitivities. Only small numbers of positive or adverse scores appear. Overall, effects are unclear and would require scheme-level assessment to understand potential impacts on assets and their settings.	

**ISA Objective 8: Landscape and Townscape**

ISA Objective	Overall score
Protect and enhance the character and quality of landscapes and townscapes and visual amenity	Uncertain
Landscape-related scores are spread across uncertain, negative, and mixed, with relatively few positives. This suggests that the proposals may introduce risks to landscape character or visual amenity, depending on siting and design. Overall, the direction of impact appears varied, with some potential for slight adverse effects.	

**ISA Objective 9: Geodiversity**

ISA Objective	Overall score
Protect, enhance and promote geodiversity	0 (Neutral)

The score for this objective is largely neutral, with few uncertain or negative results. This indicates that the proposals generally have no obvious effect on geodiversity, reflecting limited direct interaction with geological assets

### **ISA Objective 10: Soils**

<b>ISA Objective</b>	<b>Overall score</b>
Protect soil resources and avoid land contamination	Mixed
This objective shows many neutral scores, but also a notable proportion of slight adverse and uncertain effects. This pattern suggests the potential for localised soil loss or disturbance through physical works, though many schemes are unlikely to interact directly with soil resources. Overall, risks exist but are not widespread or significant at plan level.	

### **ISA Objective 11: Water Environment**

<b>ISA Objective</b>	<b>Overall score</b>
Protect and enhance the water environment	Uncertain
Scores are dominated by slight adverse effects, with additional neutral and uncertain contributions. This indicates a potential risk of local water environment impacts, such as surface water run-off, pollution pathways, or watercourse disturbance, although effects may be manageable through mitigation. Overall, there is evidence of notable adverse effects, though not consistently significant	

### **ISA Objective 12: Resource Use and Waste**

<b>ISA Objective</b>	<b>Overall score</b>
Promote sustainable use of resources and natural assets including maximising the use of alternative, secondary and recycled materials, reducing the level of waste generated	- (Slight adverse)
The scoring profile for this objective is predominantly slight adverse, with a small number of moderate adverse (significant) scores, indicating that the plan is likely to increase material use and/or waste arisings without strong embedded circularity provisions at this stage.	

**ISA Objective 13: Economic Growth**

ISA Objective	Overall score
Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	++ (Moderate beneficial)
The plan strongly supports economic growth and job creation, improving connectivity and access to employment opportunities	

**ISA Objective 14: Land Use and Energy Coordination**

ISA Objective	Overall score
Support the wider coordination of land use and energy planning across the Lancashire area	++ (Moderate beneficial)
Positive alignment with land use and energy planning objective	

**ISA Objective 15: Health and Wellbeing**

ISA Objective	Overall score
Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)	++ (Moderate beneficial)
The plan is likely to improve health and well-being through active travel, better connectivity, and safer routes.	

**ISA Objective 16: Equalities of Opportunity**

ISA Objective	Overall score
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	++ (Moderate beneficial)
The plan promotes equality of opportunity by improving access to services and sustainable transport options.	

**ISA Objective 17: Rural Connectivity**

ISA Objective	Overall score
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Promote fairness and equity in rural connectivity	+ (Slight beneficial)
The plan is expected to enhance rural connectivity, supporting fairness and equity for rural communities but is not significant at this stage.	

Following the screening of all schemes against the ISA objectives, the assessment has considered the cumulative “whole plan effect” to identify dominant trends and provide a strategic overview of sustainability performance. This approach moves beyond individual scheme impacts to examine how the plan aligns with environmental, social, and economic objectives.

### Environmental Considerations

Across the environmental objectives (1–12), the results show a mixed picture. Several environmental objectives display a broadly adverse trend, particularly:

- Objective 1 (Biodiversity) – dominated by uncertain, neutral, and mixed effects, with limited clear benefits or harms, reflecting the sensitivity of ecological receptors and gaps in scheme-specific detail.
- Objective 8 (Landscape and townscape) – characterised by uncertain, negative, and mixed scores, indicating possible landscape and visual impacts for certain schemes.
- Objective 10 (Soil resources) – a notable proportion of assessments identify slight adverse effects due to land disturbance and construction risk.
- Objective 12 (Resource use and waste) – the results show a clear predominance of slight adverse effects and limited positive influence, reflecting material use and waste generation pressures from scheme delivery.

These adverse effects are generally slight and not significant at a strategic level, but they indicate where mitigation and design refinement would be essential.

Some environmental objectives show high uncertainty, particularly:

- Objective 6 (Climate adaptation) – many scores reflect limited design maturity or uncertainty around resilience interventions.
- Objective 7 (Cultural heritage) – the predominance of uncertain scores reflects the need for site-specific assessments given spatial variability in heritage sensitivity.
- Objective 11 (Water environment) – slight adverse effects are most frequent, but uncertainty remains due to potential impacts on hydrology and water quality during construction or operation.

Several objectives indicate mostly neutral effects, including Objective 2 and Objective 9.

## Economic Considerations

The strongest positive effects across the plan occur within the socio-economic set of objectives (13–17), as follows:

- Objective 13 (Economic growth) and Objective 14 (Land-use and energy coordination) show consistently beneficial scores, reflecting the plan’s strong contribution to improved connectivity, development potential, and strategic alignment across the region.

## Social Considerations

- Objective 15 (Health & wellbeing) shows predominantly moderate to slight beneficial effects across all eight HIA sub-objectives (15a–15h), with “++” or “+” the most common results. This indicates robust support for accessibility, safety, community connectivity, and active travel outcomes
- Objective 16 (Equality of opportunity) is also strongly positive, with “++” the dominant score for most EqIA sub-objectives (16a, 16c–16e), and “+” the most common for 16f. This reflects improved access to services and transport options for all groups.
- Objective 17 (Rural connectivity) shows generally beneficial effects, with “+” the most common score for 17a and 17b, and neutral for 17c. This reflects improved rural accessibility and service connections with limited landscape or environmental trade-offs.

## Overall Cumulative Effect

The cumulative effect of the plan is mixed, balancing clear socio-economic benefits against notable environmental risks.

The plan is expected to deliver strong and widespread positive effects for economic activity, access to employment and services, social inclusion, health, and rural connectivity.

Conversely, the assessment highlights areas of environmental vulnerability, particularly regarding biodiversity, landscapes, soils, water environment, resource consumption, and aspects of climate resilience.

These findings emphasise the need for robust mitigation, including habitat protection, carbon-reducing design, landscape integration, water-sensitive design, and circular resource use. Applying targeted enhancements at the scheme level would be essential to strengthen environmental performance and ensure the plan supports long-term sustainability outcomes.

## Potential Cumulative Effects by Theme

### ***Environmental***

#### Biodiversity and Habitats

Multiple schemes could collectively increase habitat fragmentation or pressure on designated sites if not managed through coordinated ecological design. Conversely, integrated green infrastructure and biodiversity net gain measures can deliver cumulative benefits by creating connected ecological networks.

#### Landscape and Townscape

Individually minor visual impacts may accumulate, altering landscape character and townscape quality. Strategic design principles and screening can reduce cumulative visual intrusion.

#### Water Environment

Increased impermeable surfaces across several schemes may cumulatively affect catchment hydrology and water quality. Coordinated use of Sustainable Drainage Systems (SuDS) and pollution prevention measures is essential.

#### Air Quality and Carbon Emissions

The combined effect of schemes promoting active travel and EV infrastructure is expected to deliver cumulative improvements in air quality and significant reductions in greenhouse gas emissions, supporting Net Zero objectives.

#### Cultural Heritage

Individually minor impacts on heritage assets could become significant if multiple schemes affect the same historic landscape or setting. Early heritage assessments and avoidance strategies are key.

#### Climate Resilience

Multiple schemes introducing impermeable surfaces and new structures could cumulatively increase flood risk if not mitigated. Coordinated climate adaptation measures (e.g., SuDS, green corridors) would help maintain resilience.

#### Resource Use

Construction across several schemes may cumulatively increase demand for aggregates and materials. Promoting recycled materials and circular economy principles can reduce cumulative resource depletion.

#### Soil and Land Contamination

Junction upgrades and new link roads may cumulatively disturb soils and increase contamination risk. Early site investigations and remediation strategies are essential.

## **Social and Economic**

### Health and Wellbeing

Positive cumulative effects are anticipated through improved connectivity, active travel, and access to services, contributing to health and wellbeing and reducing inequalities.

### Economic Growth

Combined improvements in transport connectivity can enhance regional competitiveness and job access, supporting inclusive growth.

### Equality and Accessibility

While active travel and public transport schemes improve accessibility, cumulative benefits depend on equitable distribution across rural and deprived areas. Monitoring rural-connectivity objectives (e.g., connectivity for isolated communities) is key.

### Community Cohesion

Large-scale road schemes could cumulatively increase severance, even where individual impacts are minor. Integrating pedestrian and cycle crossings and community engagement can mitigate this.

## **Interaction with Other Plans**

Table 12 provides a high-level screening of potential cumulative effects arising from the IP when considered alongside other adopted plans and programmes. It identifies key themes, interactions, and the likely nature of cumulative impacts (positive, negative, mixed, or uncertain).

**Table 12: Interaction with Other Plans and Programmes**

<b>Adopted plans/programmes</b>	<b>Potential Interaction</b>	<b>Likely cumulative effect</b>
Local Development Plans/Housing growth plans	Housing growth increases land take and habitat fragmentation; thus, increasing the need for biodiversity net gain	Mixed (risk if unmanaged)
	Increased demand for sustainable transport and accessibility.	Positive (if integrated)
Regional Highways strategy/Masterplans	Combined construction impacts on biodiversity and water environment	Negative

Health and wellbeing strategies	Active travel and connectivity improvements complement health objectives	Positive
Local Industrial Strategies	Improved freight and connectivity enhance competitiveness	Positive
Enterprise Zone Development Plans	Access improvements align with economic growth objectives	Positive
Lancashire's Local Nature Recovery Strategies	Habitat creation and connectivity objectives may align or conflict with transport infrastructure	Mixed
Catchment flood management plans	Road schemes and impermeable surfaces could cumulatively affect flood risk; SuDS coordination needed	Mixed
Climate adaptation plans	Transport resilience measures should complement wider climate adaptation strategies	Positive
Public health strategies	Active travel and accessibility improvements support health objectives	Positive
Lancashire Growth Plan	Transport connectivity improvements underpin economic growth zones	Positive

The assessment indicates that most interactions are positive or synergistic, particularly where transport schemes align with health, housing, and economic growth objectives. Risks of negative cumulative effects primarily relate to biodiversity, water environment, and landscape character if major infrastructure projects are not coordinated. Mitigation should focus on integrated planning, ecological design, and construction phasing.

Furthermore, project-level assessments (EIA, HRA, FRA) would explicitly assess cumulative and in-combination effects with Local Plans, regional transport strategies and other infrastructure programmes.

## 10 Mitigation

This section sets out mitigation measures as defined in the SEA Regulations. This ISA has identified potential adverse or uncertain effects across several ISA objectives, particularly those relating to environmental quality, heritage, and resource use. While these effects are not considered prohibitive, they require targeted mitigation to ensure compliance with environmental legislation and to maintain overall sustainability performance. All mitigation are expected to follow the established mitigation hierarchy, prioritising avoidance of impacts wherever feasible, minimisation where avoidance is not possible, and mitigation or compensation only where residual effects remain.

Mitigation would be applied at both the plan level (through design principles and policy safeguards) and the project level, through subsequent environmental assessment processes, including Environmental Impact Assessment (EIA) and HRA, where required. Measures would be proportionate to the significance of effects and integrated into scheme design, procurement, and delivery.

This would ensure that potential effects are appropriately assessed and managed in accordance with relevant environmental legislation

### Mitigation Summary

Section 7 of this ISA identified several areas where the IP may give rise to adverse or uncertain environmental effects, particularly for biodiversity, landscape and townscape, soils, the water environment, carbon emissions and resource use. These effects are generally slight at the plan level but require targeted mitigation to ensure that the IP complies with the SEA Regulations and supports sustainable delivery of the LTP.

Across the assessment, the most consistently sensitive environmental topics were those where scheme delivery could result in physical land-take, habitat disturbance, hydrological change or visual impacts.

Key risks typically arise from strategic highway improvements, growth-enabling access schemes, rail reinstatement proposals and freight infrastructure, where design maturity is low and interaction with sensitive receptors is plausible. By contrast, non-infrastructure schemes, behavioural programmes and works confined to existing corridor footprints show minimal environmental risk and are typically neutral.

To address the risks identified and strengthen the sustainability performance of the plan, mitigation would be required at both plan level and project level.

At the plan level, mitigation focuses on embedding strategic safeguards such as biodiversity net gain, nature recovery alignment, climate-resilient design principles and circular economy approaches (as per those identified within the Core Strategy).

At project level, measures could be refined through Environmental Impact Assessment (where required), Habitats Regulations Assessment screening, heritage and landscape

assessments, construction environmental management planning, and detailed drainage, carbon, and materials specifications.

Across all scheme types, several cross-cutting mitigation themes have emerged as essential:

- **Biodiversity and Nature Recovery:** Applying biodiversity net gain (minimum 10%), avoiding sensitive habitats, enhancing ecological connectivity and integrating green/blue infrastructure.
- **Water Environment and Flood Risk:** Incorporating Sustainable Drainage Systems (SuDS), runoff containment, catchment-based drainage design, and pollution prevention during construction.
- **Carbon and Climate Adaptation:** Undertaking whole-life carbon assessments, using low-carbon materials, designing for climate resilience (shade, cooler materials, drainage capacity), and supporting modal shift.
- **Cultural Heritage and Landscape:** Early engagement with Historic England, heritage impact assessment, context-sensitive design, screening, materials selection and visual mitigation.
- **Resource Efficiency:** Prioritising reuse/recycling of construction materials, adopting circular procurement, and minimising waste generation.
- **Health, Equality and Rural Access:** Ensuring active travel integration, accessible design standards, safe crossing and lighting, and equitable access to services, particularly in areas with high transport-related social exclusion.

The application of these measures is expected to reduce the most adverse or uncertain effects to neutral or slight beneficial outcomes at plan level, and in some cases to deliver wider environmental, social and health enhancements. The following table (Table 13) sets out the specific mitigation required by each ISA objective and demonstrates how scores could improve if mitigation is applied.

**Table 13: Scoring before and after mitigation**

ISA Objective	Score before mitigation	Risk/Effect (whole plan finding)	Mitigation Recommendations /	Anticipated score after mitigation
1 Biodiversity	Mixed	Potential for habitat loss / fragmentation (slight adverse)	Apply BNG >10% per scheme using DEFRA metric Connect gains to nature recovery network	Neutral – Slight beneficial
2 International sites	0 Neutral	In combination disturbance / runoff (neutral	HRA screening for all schemes with pathways to	0 Neutral

		but potential scheme risks)	SPA/SAC/Ramsar/SSSI; seasonal timing, buffer zones, low-spill lighting; construction runoff containment; AA mitigation embedded in design.	
3 Air Quality	+ Slight beneficial	AQ Hotspots (slight beneficial)	Prioritise modal shift and ZE buses near AQMAs  EV Infrastructure	<b>++ Moderate beneficial</b>
4 Noise and Vibration	Mixed	Construction / Operational noise	Low-noise surfacing  Preference for daytime working  Real time monitoring  Vibration controls near heritage sites	0 Neutral
5 Carbon	+ Slight beneficial	Embedded and induced carbon emissions (slight adverse)	Whole-life carbon assessment at options at design stages for schemes.  Low carbon materials	+ Slight beneficial
6 Climate adaptation	<b>Uncertain</b>	Uncertain due to detail of materials used	SUDs treatments  Permeable surfaces and heat resilient materials and shade in public realms	+ Slight beneficial
7 Cultural Heritage	<b>Uncertain</b>	Uncertain due to the impact on designated heritage assets	Proportionate Heritage Impact Assessments (HIAs) would be undertaken for schemes located within or affecting conservation areas, listed building settings, registered landscapes or archaeologically sensitive areas.  Early Historic England engagement	0 Neutral

8 Landscape and Townscape	Uncertain	Visual / character effects (slight adverse)	<p>Context-sensitive design</p> <p>Landscape and visual impact assessments</p> <p>Prioritise planning and screening</p> <p>Minimise street clutter</p> <p>Integrate greenways in roads/public realm projects</p> <p>Landscape and visual design would follow National Character Area profiles, local landscape strategies, conservation area appraisals and design codes, with early specialist input to refine scheme alignments and materials.</p>	0 Neutral
9 Geodiversity	0 Neutral	Generally neutral, no specific impacts identified	<p>Avoid designated geo-features</p> <p>Reuse site won materials where possible</p>	0 Neutral
Soils	Mixed	Land take / contamination (slight adverse)	<p>Produce soil management plans</p> <p>Topsoil – strip, segregate/reuse</p> <p>Areas of restorable peat and high-carbon soils would be avoided wherever feasible. Scheme design would safeguard soil carbon through minimisation of disturbance and</p>	0 Neutral

			appropriate reuse of excavated materials.	
Water Environment	Uncertain	Uncertain due to potential flood risk	<p>SuDS design would follow catchment-based principles, ensuring no deterioration under the Water Framework Directive and supporting natural flood management wherever feasible</p> <p>Where schemes are located within Flood Zones 2 or 3 or have potential to alter drainage pathways, proportionate Flood Risk Assessments (FRAs) would be undertaken in consultation with the Environment Agency.</p>	0 Neutral
Resources and waste	- Slight adverse	Construction resource use	Circular procurement targets	0 Neutral

Applying mitigation measures removes adverse and uncertain effects identified in the initial assessment, shifting most environmental objectives from slight adverse or uncertain to neutral. Some environmental objectives also improve to slight or moderate beneficial where mitigation adds value, such as biodiversity and air quality.

Overall, the post mitigation profile is predominantly neutral, with some objectives improving to slight beneficial, reflecting the effectiveness of embedded mitigation in reducing risks and enhancing sustainability outcomes.

Further recommendations for scheme design and delivery can be found in Appendix E.

## 11 Monitoring

Monitoring is a statutory requirement of the SEA process. It ensures that significant environmental effects identified as part of this assessment are tracked throughout the plan implementation and that unforeseen adverse impacts can be addressed promptly. By systematically collecting and reviewing data, monitoring provides evidence of whether mitigation measures are effective and supports adaptive management. This requirement is set out in the SEA Regulations (Regulation 17), which mandate that authorities establish measures to monitor significant environmental effects arising from the plan.

The monitoring framework within Table 14 is designed to track the effectiveness of mitigation and sustainability measures. It is not fixed or exhaustive; indicators should be reviewed and adapted as schemes as part of the implementation plan progress. Scheme-level monitoring would play a critical role in identifying additional or refined KPIs where new risks or opportunities emerge. This flexible approach ensures that monitoring remains responsive to local conditions, stakeholder feedback, and evolving best practice.

Monitoring indicators would be refined and agreed with Natural England, Historic England and the Environment Agency prior to adoption to ensure effective tracking of biodiversity, heritage, water environment and carbon outcomes.

**Table 14: Monitoring Framework**

Theme/ISA Objective	Relevant LTP Goal	Indicator	Unit	Data Source	Frequency
Climate and Carbon	Reduce pollution from transport	Transport emissions CO2	ktCO2e/year	BEIS/DfT data	Annually
		EV Uptake	% of registered vehicles	DVLA/DfT	Annually
		Modal Share	% of trips	Lancashire Travel Survey	Annually
	Increase resilience to evolving weather patterns	Number of new trees planted in heat mitigation index low scoring urban areas	Number/year	Natural England / Scheme data	Annually
Air Quality	Reduce pollution from transport	NO2 and PM2.5 Concentrations	µg/m <sup>3</sup>	Number of AQMAs in Lancashire CCA area	Annually
Noise	Reduce pollution from transport	Population exposed to >65db	% of population	Number of noise important areas in Lancashire CCA area	Annually
Water environment	Increase resilience to evolving weather patterns	Flood related transport disruptions	Number/year	LCC data (asset management)	Annually

		Number of routes on the Resilient Route Network	Number per 2 years	LCC data	Biennial
Biodiversity	Protect and enhance natural/built environment	Net gain in biodiversity	%	DEFRA/Natural England – number of schemes with net gain	Annually
Health and well being	Protect and enhance natural/built environment	Access to green infrastructure	% of population within 1km of green infrastructure	Natural England	Annually
		Perceptions of road safety	-	Health streets survey	Annually

## Recommendations for Scheme-Level Monitoring

While the current monitoring framework operates at a combined county authority wide strategic level, individual schemes should develop further KPIs during design and delivery. These KPIs should reflect the unique characteristics, risks, and opportunities of each project and feed into the overarching monitoring framework where relevant. Examples include:

- Environmental: Habitat creation area (m<sup>2</sup>), number of trees planted, SuDS performance metrics, number of pollution incidents attributable to transport.
- Social: Number of new active travel connections, accessibility compliance scores.
- Equality: Percentage of facilities meeting inclusive design standards, user satisfaction surveys for vulnerable groups.
- Rural/TRSE: Number of rural households gaining new transport links, affordability indicators for low-income users.

This approach ensures monitoring remains adaptive and responsive, allowing additional indicators to be introduced as schemes evolve. Scheme-level data would complement strategic monitoring and provide a more granular understanding of sustainability performance.

Monitoring should be proportionate to scheme scale and risk, and informed by project-level environmental assessments where required

## 12 Conclusion

This ISA has provided a comprehensive appraisal of the IP against environmental, social, and economic objectives. The assessment confirms that the IP is broadly aligned with the strategic vision of Core Strategy and statutory requirements under the SEA Regulations, while also addressing health, equality, rural needs, and climate considerations.

### Key Conclusions

The IP demonstrates strong socio-economic benefits, notably supporting economic growth, job creation, and improved connectivity, while delivering moderate positive effects for health and wellbeing, equality of opportunity, and rural accessibility through measures such as active travel schemes, integrated transport hubs, and targeted interventions to reduce transport-related social exclusion. However, the assessment identifies environmental risks, including slight adverse effects on biodiversity, carbon emissions, landscape and townscape character, soil resources, and resource use, alongside uncertainties for climate adaptation, cultural heritage, and water environment due to limited scheme-level detail.

Cumulative impacts present a mixed picture, although synergistic benefits are expected from active travel and electric vehicle infrastructure, these gains could be offset by emissions and habitat loss associated with major highway schemes, particularly when combined with housing growth and regional infrastructure plans.

However, post-mitigation analysis indicates that most adverse and uncertain effects can be reduced to neutral or beneficial outcomes through embedded measures such as biodiversity net gain, whole-life carbon assessments, sustainable drainage systems, and heritage-sensitive design. Nevertheless, given residual uncertainties and the strategic nature of this appraisal, robust monitoring and adaptive management would be essential to ensure sustainability objectives are achieved throughout implementation.

### How the IP responds to Lancashire's Sustainability Challenges

The Core Strategy ISA identified a series of strategic sustainability challenges for Lancashire, including the need to protect internationally and nationally important habitats, support nature recovery, enhance climate resilience, improve air quality, reduce carbon emissions, safeguard water environments, and ensure that the county's diverse landscapes and heritage assets are respected and enhanced. Significant social and economic challenges were also highlighted, including high levels of transport-related social exclusion (TRSE), persistent health inequalities, ageing infrastructure vulnerability, and unequal access to employment, education and essential services.

This IP ISA has assessed the short-term programme of schemes proposed for delivery between 2026 and 2030, and the results confirm that the Implementation Plan, when delivered with the mitigation and safeguards set out in this ISA, provides a proportionate, practical and defensible response to the sustainability issues identified at the strategic level.

Across the programme, the IP makes its strongest positive contributions in addressing inequality, health, wellbeing and rural accessibility. Schemes that improve walking, wheeling and cycling connections, deliver bus priority, strengthen interchange hubs, enhance community and rural transport, and improve public realm accessibility offer clear benefits for communities most affected by TRSE, particularly in coastal settlements, inner-urban neighbourhoods and isolated rural areas. These interventions meaningfully reduce mobility barriers and enhance everyday access to education, healthcare, employment and local services. The ISA confirms that these social and equality benefits are consistently moderate beneficial, aligning closely with the social outcomes anticipated within the Core Strategy ISA.

Environmental performance is more varied, reflecting the diversity of scheme types and design stages. Non-infrastructure programmes, such as behavioural change, community transport, activation projects and service improvements, present minimal environmental risk and align well with the Core Strategy's objectives to support healthier travel behaviours. By contrast, certain highway corridors, rail feasibility schemes and the freight terminal present location-specific risks relating to biodiversity, landscape character, soils, hydrology and cultural heritage. These risks were anticipated within the strategic ISA and generally arise where schemes are situated near sensitive receptors, including designated habitats, watercourses, floodplains, conservation areas and historic townscapes.

To address these risks, this ISA sets out a comprehensive suite of mitigation measures aligned with the mitigation hierarchy. Avoidance and minimisation would be prioritised ahead of compensation or offsetting, ensuring that environmental protections are embedded early in scheme development rather than deferred to the project stage. This includes requirements for:

- HRA screening and, where necessary, Appropriate Assessment for any scheme with potential pathways to international sites, including consideration of FLL for SPA/Ramsar bird species;
- Heritage-sensitive design, early engagement with Historic England, and proportionate Heritage Impact Assessments where transport interventions interface with conservation areas or designated assets;
- Catchment-based SuDS, runoff containment, and construction controls to manage hydrological and water-quality risks, supported by Flood Risk Assessment and Environment Agency liaison for schemes affecting watercourses or flood zones;
- A consistent commitment to BNG (>10%), ecological connectivity, and nature-based solutions for climate resilience;
- Where relevant, CEMPs to manage pollution pathways, noise, dust, soil disturbance and groundwater protection; and

- Whole-life carbon assessment and the use of low-carbon materials to manage embodied and operational carbon arising from infrastructure delivery.

With these measures in place, all significant or uncertain environmental risks identified at the plan level are considered manageable and capable of being reduced to neutral or slight beneficial outcomes, acknowledging that some residual effects for landscape, heritage and biodiversity may remain dependent on final scheme design and alignment. These remaining uncertainties are proportionate to the early-stage nature of several schemes and would be addressed through project-level assessments, including EIA, HRA, FRA, ecological surveys and heritage assessments as required.

Overall, this ISA concludes that the IP represents a coherent, evidence-led and environmentally responsible response to Lancashire's sustainability challenges. It advances the Core Strategy's objectives by improving access, supporting modal shift, enhancing network resilience, reducing inequalities, and providing a clear framework for managing the environmental implications of major schemes. With mitigation, monitoring, statutory consultee engagement and the plan-level design principles identified in this ISA, the Implementation Plan can be delivered in a manner that fulfils statutory SEA obligations, protects sensitive environmental and heritage assets, and contributes meaningfully to Lancashire's long-term transition to a healthier, more resilient and more inclusive transport system.

Some localised residual effects relating to biodiversity, heritage and landscape may remain following mitigation. These would be fully assessed at project stage through EIA, HRA, HIA and landscape assessment as appropriate

## Appendix A: Scoping Responses and Comments

## Appendix B: Baseline Maps

## **Appendix C: Integrated Health Impact Assessment, Equalities Impact Assessment and Rural Needs Assessment**

## Appendix D: Carbon Assessment

## **Appendix E: Key recommendations for scheme design and delivery**