

# West Yorkshire Local Transport Plan

## Integrated Sustainability Assessment

Report

January 2011

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## CONTENTS

<b>NON-TECHNICAL SUMMARY</b>	<b>I</b>
Overview	i
<b>1 INTRODUCTION</b>	<b>1</b>
About the Integrated Sustainability Assessment (ISA)	1
Scope of the ISA Process	2
Consultation as part of the ISA Process	7
Integrating the Assessments	10
The WYLTP Consultation Draft	12
Structure of the Assessment Report	12
<b>2 SUMMARY OF THE LOCAL TRANSPORT PLAN</b>	<b>13</b>
Overview	13
Purpose of the WYLTP	13
Transport Strategy	13
Implementation Plans	14
<b>3 SCOPE OF THE ISA</b>	<b>15</b>
Geographical Scope	15
Temporal Scope of the Transport Plan and ISA	15
Technical Scope of the ISA	15
ISA Objectives	16
<b>4 BASELINE CONDITIONS</b>	<b>25</b>
Introduction	25
Environment	25
Health	28
Equality Target Groups	29
Economy	30
<b>5 ASSESSMENT OF EFFECTS OF THE WYLTP</b>	<b>33</b>
Overview and Summary	33
Environmental Effects	38
Health Effects	46
Equality Effects	47
Effects on the Economy	53
Cumulative Effects	55
<b>6 CONSIDERATION OF ALTERNATIVE STRATEGIES</b>	<b>57</b>

	Alternatives in the Context of the Transport Plan.....	57
	Alternatives Considered in the ISA for the WYLTP.....	57
	Strategy Options and Analysis .....	57
	Strategy Outcomes .....	64
<b>7</b>	<b>MITIGATION</b> .....	<b>79</b>
	The Role of Mitigation in ISA.....	79
	Mitigation in the Context of the Transport Plan .....	80
	Environmental Mitigation.....	80
	Measures to Mitigate Health Effects.....	84
	Tackling Inequalities .....	85
	Mitigating Economic Effects .....	88
<b>8</b>	<b>MONITORING</b> .....	<b>89</b>
	Monitoring in the Context of the ISA .....	89
	Recommended Indicators.....	90
<b>9</b>	<b>NEXT STEPS</b> .....	<b>93</b>
	Consultation .....	93
	Adoption of Final Transport Plan and SEA Statement .....	94

## FIGURES

Figure 1.1	Process and Elements of the Integrated Sustainability Appraisal ....	3
Figure 6.1	Absolute Differences in Jobs and CO <sub>2</sub> in 2016 compared to the Do-Minimum .....	65
Figure 7.1	Buffer Zones for Protection of European Sites .....	83

## TABLES

Table 1.1	Summary of ISA Stages.....	4
Table 5.2	changes in CO <sub>2</sub> Emissions (Compared with Do-Minimum) 2025.....	38
Table 5.3	Reductions in Car Mode Share (Compared with Do-Minimum) 2025	41
Table 5.5	Estimated Increases in GVA Due to LTP Strategy (Compared with Do-Minimum) 2025 .....	54
Table 6.1	Strategy Options for Assessment (As at 5 <sup>th</sup> November 2010) .....	59
Table 6.2	Assessment of Strategy Options .....	67
Table 8.1	Recommended Indicators for MOnitoring .....	90

## APPENDICES

- A RESPONSES TO COMMENTS RECEIVED ON SCOPING REPORT
- B SUMMARY OF POLICY DOCUMENTS REVIEWED FOR THE ISA
- C INFORMATION ON BASELINE CONDITIONS
- D QUALITY ASSURANCE CHECKLIST FOR STRATEGIC ENVIRONMENTAL ASSESSMENT



## Non-Technical Summary

### Overview

- 1.1 The West Yorkshire Local Transport Plan (LTP) is being developed for adoption by April 2011. A key part of developing an LTP is carrying out various strategic assessments, required by legislation and highlighted in the Department for Transport's LTP guidance. Steer Davies Gleave, with Social Research Associates and Entec UK Ltd., were commissioned to undertake an 'Integrated Sustainability Appraisal (ISA)' to cover the requirements.
- 1.2 The assessments comprising the ISA are:
- Strategic Environmental Assessment (SEA), required by EU Directive and UK regulations
  - Health Impact Assessment (HIA), required by the UN Kiev Protocol
  - Equalities Impact Assessment (EQIA), contributing to regulatory equalities duties
  - Habitats Regulation Assessment (HRA), also required by EU Directive and UK regulations
- 1.3 The ISA considers the environmental, health, social and economic impacts arising from the WYLTP and seeks to avoid or at least mitigate any adverse affects. The ISA process runs alongside the development of the WYLTP to influence its development, including the evidence base and options appraisal.

### Consultation and Scoping Report

- 1.4 Statutory consultees and other stakeholders have considered environmental, health, social and economic impacts issues most important to their interests through:
- Workshops with statutory stakeholders and West Yorkshire district officers
  - Responses to the online publication of the Scoping Report, as detailed with responses in the Appendix A of this report.

### Assessment method

- 1.5 The approach to the assessment conforms with all relevant statutory and best practice requirements, and included the following:

- Setting the context, identifying objectives and problems and establishing the baseline conditions.
- Deciding the scope of ISA and developing alternatives, and agreeing these with the relevant statutory bodies.
- Assessing the effects of the Plan.
- Consulting on the draft WYLTP3 and the Integrated Sustainability Assessment Report.
- Recommending ways to monitor the significant effects of implementing the plan on resources relevant to sustainable development.

### Alternatives Considered

1.6 The SEA Directive requires reasonable alternatives to the plan under consideration to be identified, described and evaluated. High level alternatives were considered across all ISA topic areas, bundling the 28 strategic approaches into three options which were also modelled for economic and environmental impacts. The options are:

- Option 1: ‘Focus on maintaining and managing assets’;
- Option 2: ‘Focus on tackling congestion’; and
- Option 3: ‘Focus on carbon reduction’.

### Impacts

- 1.7 Overall, the WYLTP will have no significant adverse environmental, health, social and economic impacts, and will provide some benefits across the board.
- 1.8 In particular, there will be some moderate benefits in terms of a reduction in CO<sub>2</sub> emissions from transport by 20% (as a result of mode shift, smoother traffic flows, new processes and support of new technologies). There similarly will be slight improvements in air quality generally. There also is likely to be a reduction in energy consumption as a result of these factors, and health benefits from engagement of local communities in safer roads initiatives and encouragement of increased active travel and lifestyle changes.
- 1.9 Conversely, there is the possibility there will be some slight adverse effects on biodiversity as a result of major schemes (e.g. at Apperley Bridge, Kirkstall Forge, Shipley Eastern Relief Road ). However, in



the most sensitive areas, care will be taken to affect wildlife habitats and if needed as further schemes develop an Appropriate Assessment, under the terms of the Habitats Regulations, should be conducted, to determine local effects.

- 1.10 There are mixed effects in terms of impacts on target equalities groups, and more work is required in the implementation of policies and the engagement with these groups to avoid any potential adverse effects and maximise the benefits for them. The strategy and implementation plans should also provide benefits for the West Yorkshire economy, boosting employment (particularly in Leeds city centre) through congestion reduction and reliability improvements that will support productivity and competitiveness of businesses.
- 1.11 There are no instances identified where slight effects in combination will lead to additional significant effects.
- 1.12 In implementing the WYLTP, careful consideration should be given across all topic areas. Larger, longer term projects may require an Environmental Impact Assessment, under Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 1999. EIAs provide more detailed, site specific information on each of the environmental topics identified in the Strategic Environmental Assessment.

#### **Mitigation**

- 1.13 The ISA has indicated that the proposed WYLTP is unlikely to have any significant adverse effects. However, although it may secure some improvements, the implementation of the WYLTP proposals is unlikely to provide the significant improvements that would underline the aspirations within the WYLTP. To this end, we have recommended some further mitigation measures across the ISA topics.

#### **Monitoring**

- 1.14 There is a specific requirement of the regulations governing SEA that the monitoring of the environmental effects of plans and programmes, such as the LTP, is carried out. We anticipate that the monitoring arrangements for WYLTP, continuing from WYLTP2 and reflecting data collection from central government, will generally cover this requirement. Furthermore, the routine monitoring of air quality at many locations throughout West Yorkshire required under

## Integrated Sustainability Assessment

air quality management regulations that will continue, and other monitoring activities relevant to the AQMP. Other monitoring data on environmental resources will be collated from existing data sources, such as the Environment Agency and Natural England, and the local authorities within West Yorkshire.

## 2 Introduction

### About the Integrated Sustainability Assessment (ISA)

- 2.1 The West Yorkshire Local Transport Plan (WYLTP) Team is developing its next Plan for adoption by April 2011. A key part of this is to carry out the required assessments, driven by various pieces of legislation and highlighted in the Department for Transport's (DfT) LTP guidance. The WYLTP team commissioned Steer Davies Gleave (supported by Social Research Associates and Entec UK Ltd.) to undertake an Integrated Sustainability Appraisal (ISA) to cover all these requirements.
- 2.2 These required assessments of which the ISA comprises are:
- **A Strategic Environmental Assessment (SEA)**, required by EU directive and UK regulations;
  - **A Health Impact Assessment (HIA)**, required by the UN Kiev Protocol;
  - **An Equalities Impact Assessment (EQIA)**, contributing to regulatory equalities duties placed on the local authorities in West Yorkshire; and
  - **A Habitats Regulation Assessment (HRA)**, also required by EU Directive and UK regulations.
- 2.3 The ISA looks at the environmental, health, social and economic impacts arising from WTLTP and seeks to avoid or at least mitigate any adverse affects. It is intended that the ISA process runs alongside the development of the WTLTP to influence its development, including the evidence base and options appraisal.
- 2.4 The completed ISA will comprise the following:
- **Scoping Report:** determines the scope of the assessments and examines the evidence base (data and policies), set objectives and consider initial options. This was published on 22<sup>nd</sup> July 2010 for consultation.
  - **Assessment Report:** This document is the Assessment Report, which sets out the assessment methodology and assessment of the alternatives and preferred option.
  - **Post-Adoption Statement:** outlines how the ISA process influenced the WTLTP, including changes and outstanding issues.

This will be published as soon as possible after the WTLTP comes into operation on 1<sup>st</sup> April 2011.

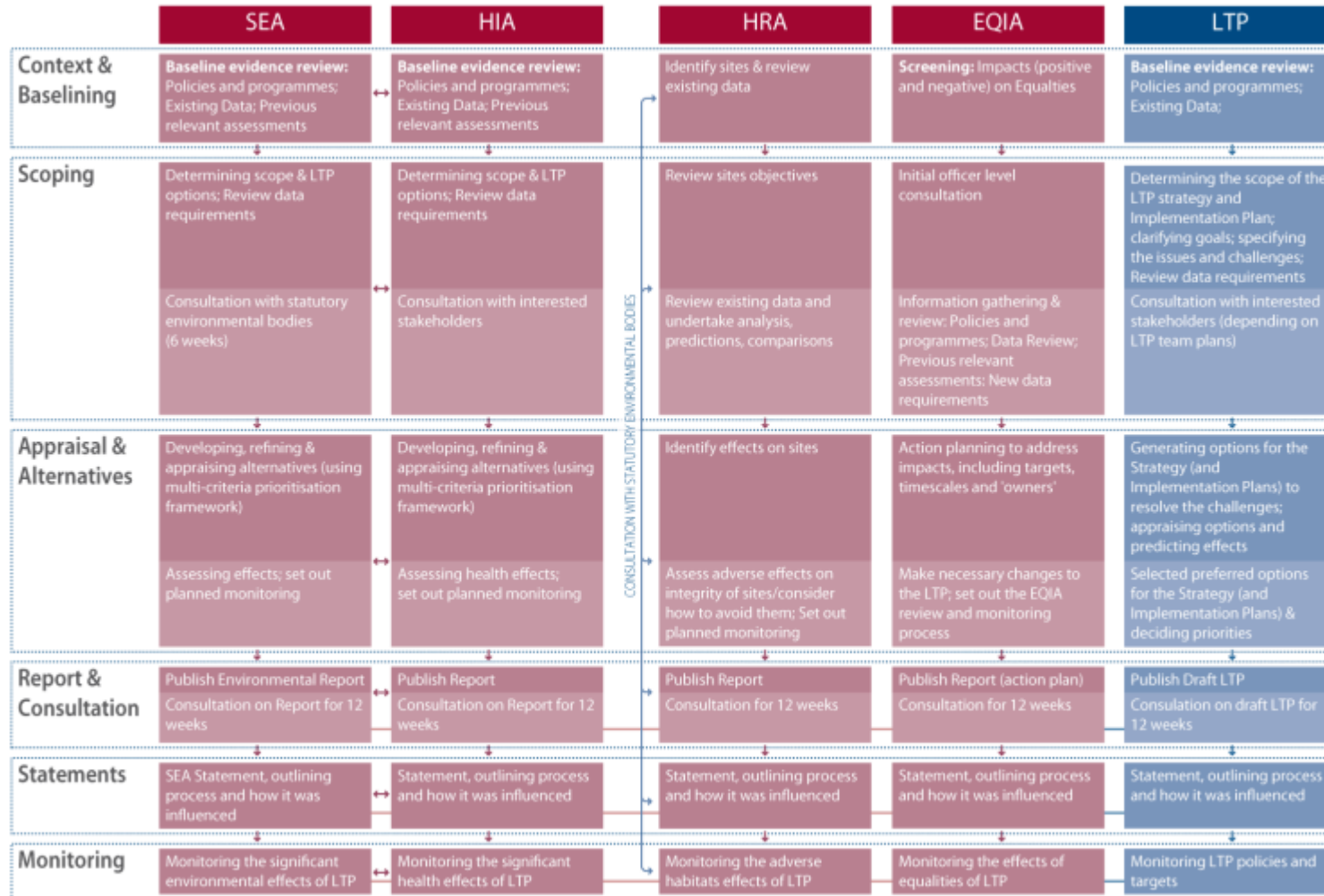
### *What is an ISA?*

- 2.5 The West Yorkshire WTLTP will take an innovative approach to the required assessments, ensuring that they are fully aligned as part of an overall ISA. The process of assessment is typically divided into five stages (see **Table 2.1** on the following page). This Report summarises the information gathered during the process of the assessment.

### **Scope of the ISA Process**

- 2.6 The scope of the ISA, and the parallel elements of it, are illustrated in **Figure 2.1** following. The ISA process has a very wide remit and will consider the following topics (and interrelationships between them) during the assessment of the WTLTP:
- **Environmental Issues:** i.e. Biodiversity; Population; Noise; Flora and fauna; Soil; Water; Air quality; Climatic factors; Material assets; Cultural heritage; and Townscape/Landscape.
  - **Health Issues:** i.e. Death and injuries in accidents, disturbance from noise, beneficial effects of more physical activity, health effects of air pollution, access to health facilities.
  - **Equality Issues:** Issues relating to discrimination on the basis of gender, disability, race, sexuality, age or religion.
  - **Economic Issues:** Including impacts on key economic indicators, economic policy, localised economic effects and changes in access to factors of production.
  - **Issues specifically relating to the Habitats Regulation Assessment:** Including killing of or disturbance to fauna, physical loss of or damage to habitats, indirect loss of or damage to habitats, and changes to growing conditions.
- 2.7 The ISA is a strategic assessment and is not required to carry out or replicate other assessments (e.g. Environmental Impact Assessment, Health Impact Assessments, Economic Impact Assessments, or Equality Impact Assessments) of individual schemes, or overlap with strategic assessments that have been done for other plans (such as Local Development Frameworks). It concentrates on the **significant** impacts of the WTLTP, not **all** the possible impacts and sustainability

FIGURE 2.1 PROCESS AND ELEMENTS OF THE INTEGRATED SUSTAINABILITY APPRAISAL



**TABLE 2.1 SUMMARY OF ISA STAGES<sup>1</sup>**

ISA Stage	What is involved
<p><b>Stage A:</b> Setting the context, identifying objectives and problems and establishing the baseline.</p>	<p>Analyse sustainability objectives, established at international, European Community or national level, which are relevant to the plan.</p> <p>Establish ISA objectives, indicators and targets.</p> <p>Collect relevant information on the environmental context as relevant to the plan / programme, and its evolution without the plan / programme.</p> <p>Outline the sustainability characteristics of areas likely to be significantly affected.</p> <p>Outline any existing sustainability problems which are relevant to the plan, including those relating to any areas of a particular sustainability importance (e.g. the EU Birds and Habitats Directives).</p>
<p><b>Stage B:</b> Deciding the scope of ISA and developing alternatives.</p>	<p>Outline the relationship with other relevant plans, programmes and their sustainability objectives.</p> <p>Identify relevant alternatives at the strategic level.</p> <p>Scope the likely significant effects of the plan and alternatives (<b>Scoping Report</b>).</p> <p>Consult with environmental authorities when deciding on the scope and level of detail of the information which must be included in the Strategic Environmental Assessment elements of the ISA to meet statutory requirements.</p>

<sup>1</sup> Adapted from: Department for Transport (2010) – **Strategic Environmental Assessment for Transport Plans and Programmes** – Transport Analysis Guidance, Unit 2.11D, January 2010 – Table 2.2, p. 8-9.

ISA Stage	What is involved
<p><b>Stage C:</b> Assessing the effects of the Plan.</p>	<p>Forecast the significant effects on the economy, environment and other resources relevant to sustainability of the chosen strategy taking into account the objectives and geographical scope of the plan.</p> <p>Outline the reasons for selecting the alternatives dealt with.</p> <p>Propose measures to prevent, reduce and as fully as possible offset any significant adverse effects in terms of sustainability of implementing the plan or programme. Such measures should be costed and deliverable.</p> <p>Describe the measures envisaged concerning monitoring.</p>
<p><b>Stage D:</b> Consultation on the draft WTLTP and the Integrated Sustainability Assessment Report.</p>	<p>Prepare an ISA Report identifying likely significant effects on the environment of implementing the plan, and reasonable alternatives taking into account the objectives and geographical scope of the plan.</p> <p>Give environmental authorities, other key stakeholders and the public an early and effective opportunity within appropriate time frames to express their opinion on the draft WTLTP and accompanying ISA Report before the adoption of the plan.</p> <p>Take consultation results into account.</p> <p>Make available the plan as adopted and a statement summarising:</p> <ul style="list-style-type: none"> <li>• how sustainability considerations (particularly relating to environmental protection) have been integrated into the plan; and</li> <li>• how the ISA Report, and the results of consultations have been taken into account; and the reasons for choosing the plan as adopted, in the light of the other reasonable alternatives dealt with.</li> </ul> <p>Proposals for monitoring</p>

## Integrated Sustainability Assessment

ISA Stage	What is involved
<b>Stage E:</b> Monitor the significant effects of implementing the plan on resources relevant to sustainable development.	Decide what needs to be monitored. Identify the information required, including existing sources and the gaps. Confirm when the remedial action would be required and identify what remedial actions might be needed. Consider who is responsible for the monitoring activities, when it should be carried out and propose what the appropriate format for presenting the monitoring results.



issues. The SEA directive, which is the primary statutory driver for the process, stresses a **reasonable** approach to assessment, which takes into account issues such as resource and information available within the timescale allowed. Further detail on the scope is given in **Chapter 3**.

#### Consultation as part of the ISA Process

- 2.8 As required by the SEA Directive and Regulations, the WYLTP Partnership, as the ‘responsible authorities’<sup>2</sup> consulted with the statutory environmental bodies on the Scoping Report<sup>3</sup> for the SEA elements of the ISA. These bodies are:
- The Environment Agency;
  - English Heritage; and
  - Natural England.
- 2.9 Responses from this consultation have been used to inform the ISA and also will help to refine the WTLTP before it is finalised by the Partnership in 2011. The comments received on the Scoping Report are set out, together with the consultants’ responses to these, in **Appendix A** to this report.
- 2.10 The Scoping Report was sent to the statutory bodies and other key partners and stakeholders on 22<sup>nd</sup> July 2010, and as specified in the SEA Regulations<sup>4</sup> **five weeks** were allowed for them to respond. This period ended on **31st August 2010**.
- 2.11 The second stage of consultation will take place when the ISA Report is prepared and published in Autumn 2010, together with the draft WTLTP. As required by the Directive, this stage will involve a wider range of consultees, including the general public.
- 2.12 In undertaking consultation on this Final Report the ISA, the WYLTP Partnership particularly welcomes comments on the following:

<sup>2</sup> i.e. the authority by which or on whose behalf a plan prepared.

<sup>3</sup> Steer Davies Gleave (2010) - **West Yorkshire Local Transport Plan 3: Integrated Sustainability Assessment - Scoping Report** - West Yorkshire Local Transport Plan Partnership, July 2010.

<sup>4</sup> Statutory Instrument 2004 No.1633 **The Environmental Assessment of Plans and Programmes Regulations**, (2004) - Regulation 12(6).

- Do you agree with the general findings of the ISA that the WTLTP will generally have a positive impact for West Yorkshire and that any significant adverse effects will be effectively managed by the mitigation proposals?
- Are there any additional mitigation techniques for addressing the effects of the WTLTP which have been overlooked?
- Is any significant data on the effects of the WTLTP that is missing or misrepresented?
- In terms of the effects of the WTLTP, are there any alternative strategies or policies which should have been considered?

*Strategic Environmental Assessment (SEA)*

- 2.13 European legislation<sup>5</sup> requires that SEA be carried out for policies, plans and programmes across a number of areas, including transport. Therefore, all responsible transport authorities are legally required to undertake an SEA as part of their LTP development. The latest LTP guidance stresses the importance of the SEA being an integral part of developing and later delivering an LTP. Statutory environmental agencies, such as the Environment Agency, Natural England and English Heritage will be involved throughout the development and monitoring of an LTP.
- 2.14 At International level, the UN Kiev Protocol<sup>6</sup>, which came into force very recently on 11<sup>th</sup> July 2010, commits signatories to recognising the importance of integrating environmental, including health, considerations into the preparation and adoption of plans and programmes and, to an appropriate extent, also policies and legislation.
- 2.15 The economic assessment is picked up within the scope of the ISA as economic development is one of the topic areas. This will not be as detailed as the Local Economic Assessment, which is a separate assessment required by all upper tier local authorities by April 2011

<sup>5</sup> EU Directive 2001/42/EC on the assessment and effects of certain plans and programmes on the environment, Implemented in England via the Environmental Assessment of Plans and Programmes Regulations 2004 (Statutory Instrument 2004/1633).

<sup>6</sup> Environment Ministers of the region of the United Nations Economic Commission for Europe (2003) - **Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context** – The ‘Kiev Protocol’, May 2003, Article 1.

that is to be carried out across the authority rather than being Plan-specific. The LEA will then feed into any review of existing policies developed prior to the LEA and new policies developed after April 2011, including any WTLTP revisions. This ISA examines the contribution of the WTLTP to the key economic objectives in West Yorkshire, based as far as possible on a quantification of the impacts on key economic indicators (e.g. productivity, employment, GDP) using the economic categories distinguished in DfT appraisal guidance (business time savings, reliability and crowding benefits, labour force effects, agglomeration and competition effects, public accounts) relative to baseline.

- 2.16 To demonstrate compliance with regulatory and good practice requirements for SEA, a compliance checklist, referencing where material may be found in the ISA report, may be found in **Appendix D** to this report.

*Health Impact Assessment (HIA)*

- 2.17 Health Impact Assessment predicts the health consequences of plans if implemented, and recommend how the good consequences for health could be enhanced and how the bad consequences could be avoided or minimised. This is done not only in terms of the overall consequences for a population but also taking account of the distribution of health impacts in that population which groups benefit and which groups lose or at least benefit less.
- 2.18 In the UK there is no statutory requirement to undertake HIA, but it provides useful way to support efforts to improve health and help address health inequalities. The Department of Health has acknowledged the value of HIA at a policy level, noting that *“The impact of ‘non-health’ interventions on population health should also be more routinely considered before implementing policies (through Health Impact Assessments)”*<sup>7</sup>.
- 2.19 The Kiev Protocol (see **Paragraph 2.14** above), specifically extends the requirements of the EU SEA Directive and the SEA Regulations in force in the UK by placing more emphasis on considering the health impacts of policies plans and programmes as part of SEA.

<sup>7</sup> Department of Health (2004) – **Choosing Health: Making Healthy Choices Easier** - Cm 6374, The Stationery Office.

### *Equality Impact Assessment (EqIA)*

- 2.20 An Equality Impacts Assessment (EQIA) is required by race, disability and gender legislation<sup>8</sup>. As the LTP guidance stresses, an EQIA can help determine how an LTP affects different groups of people. DfT advises that an EQIA encompass race, gender, disability, age, religion/belief and sexual orientation. The EQIA process will help inform the whole WTLTP, as well as potentially helping to develop a supplementary Accessibility Strategy. We appreciate that in meeting their Equality Standard, local authorities largely have clear internal procedures for undertaking an EQIA, which we are collating for a West Yorkshire approach.

### *Habitats Regulation Assessment (HRA)*

- 2.21 The Government's LTP guidance highlights the need for Habitats and appropriate assessment where this is appropriate, starting by clarifying if the LTP is likely to have a significant effect on a European site<sup>9</sup>. If a significant effect is considered likely, the LTP must be subject to an Appropriate Assessment (AA)<sup>10</sup>.
- 2.22 The precautionary approach adopted has involved identification of 'buffer' areas around the relevant designated areas of protection covered by the Habitats Regulations. On this basis, it has been agreed with Natural England that AA of specific proposal of the WTLTP3 will only be required if policies or delivery proposals are located within the identified buffer areas.

### **Integrating the Assessments**

- 2.23 There is considerable overlap between the types of effect that have been considered within each element of the ISA. It was therefore necessary to ensure that duplication in considering the effects was avoided, and consistency maintained across the different elements

<sup>8</sup> Race Relations (Amendment) Act 2000, requirement to produce and publish a Race Equality Scheme. Disability Discrimination Act 2005, requirement to produce a Disability Equality Scheme. Equality Act 2006, requirement to produce a Gender Equality Scheme

<sup>9</sup> European sites are Special Areas of Conservation (SACs), Special Protection Areas (SPAs), and listed Ramsar sites. Proposed SPAs and candidate SACs are also regarded as European sites.

<sup>10</sup> As required by Article 6(3) of the Habitats Directive (Council Directive 92/43/EEC) and Regulation 85B of the Conservation (Natural Habitats &c) Regulations 1994, (S.I. 1994/2716 as amended).

when considering the same or similar effects. In addition, there are inter-dependencies between different types of effect, and often cumulative effects occur. This includes, for example:

- Two or more different effects affecting the same receptor group or resource. In themselves, each of these effects may not be significant, but in combination they may be considered to constitute a significant overall effect. This is particularly the case where recognised problems of multiple deprivation occur.
- The same effects from two different sources affect a single receptor group or resource. To recognise and take account of this, it is important to identify the spatial distribution of effects specifically, and take account of the cumulative effect of this. Here again, the effect from each single source may not be significant, but in combination the effect on specific receptors or resources may be significant overall.

2.24 The approach adopted for the ISA has sought to take account of this in a number of ways, i.e.:

- The scoping exercise sought to be as comprehensive as possible, and identify all the likely sources of significant effects, even where these may occur within more than one element of the assessment. Comments of the statutory environmental bodies have been taken into account in this respect also.
- However, to avoid duplication, each type of effect is considered only once in relation to the overall effect of the policies and proposals that will be set out in the WTLTP.
- The potential interactions between different types of effect will be specifically considered. For example, correlations between levels of accessibility and participation in active travel will be made with information on the incidence and distribution of specific health issues within West Yorkshire.
- As described further in **Chapter 7 (See Paragraph 7.8)**, a common qualitative approach to reporting the significance of effects will be adopted across all the elements of the ISA, so that these are described in comparable terms.

### The WTLTP Consultation Draft

- 2.25 A public consultation on the draft WTLTP<sup>11</sup> will provide the opportunity for people and organisations in West Yorkshire to have their say on the future of transport in the area. The period for consultation ran until 17 December 2010, and extended to 7<sup>th</sup> January 2011. The draft is summarised in **Chapter 3** following.

### Structure of the Assessment Report

- 2.26 Following this introductory section, the remainder of the Assessment Report is set out as follows:

- **Section 2** summarises the draft WTLTP that has been the basis of the ISA;
- **Section 3** sets out the scope of the ISA, and identifies the objectives and indicators used in the evaluation of the WTLTP;
- **Section 4** describes the baseline conditions in relation to the environment, public health, equalities and the local economy against which the effects of the WTLTP are measured;
- **Section 5** sets out the evaluation of the alternative strategy options considered in the development of the WTLTP;
- **Section 6** provides the assessment of the effects of the WTLTP strategy;
- **Section 7** identifies and makes recommendations for mitigation measures;
- **Section 8** sets out recommendations for monitoring of the effects of the WTLTP in terms of the ISA; and
- **Section 9** sets out the next steps for completion of the ISA.

<sup>11</sup> West Yorkshire LTP Partnership (2010) - **My Journey: West Yorkshire Local Transport Plan - Strategy for 2011-2016** - Document for Consultation October-December 2010, and extended to January 7<sup>th</sup> 2011.

### 3 Summary of the Local Transport Plan

#### Overview

- 3.1 The ‘MyJourney West Yorkshire’ Plan for 2011-26 is made up of a 15 year Strategy to allow for longer term planning of West Yorkshire's transport system, supported by a series of three year Implementation Plans.
- 3.2 This draft Strategy has been developed in the context of uncertainties surrounding transport funding, the economy and the environment. The longer term Strategy is a living document that will evolve and be periodically reviewed as the three year Implementation Plans are renewed to reflect changing issues, priorities and funding.

#### Purpose of the WTLTP

- 3.3 The WTLTP will provide a framework for local transport planning and delivery in West Yorkshire, including maintenance, operation and management of transport assets, delivery and coordination of transport services, provision of information under the Bus Information Duty, influencing travel behaviour, and making enhancements to the transport system. The Plans do not cover aviation, international shipping or the motorway network but the partners work closely with airports, freight bodies and the Highways Agency to consider links to and movements on these networks.

#### Transport Strategy

- 3.4 The WTLTP sets out a Vision for improving West Yorkshire's transport system between 2011 and 2026, and identifies three key Objectives for achieving this.
- 3.5 The Vision Statement for the WTLTP is:
- “Working together to ensure that West Yorkshire’s transport system gives people access to what they want and need easily, efficiently and in a way that supports the environment, the economy and their quality of life.”*

- 3.6 The key objectives that will drive delivery of the vision are:
- **Objective 1:** To make substantial progress towards a low carbon, sustainable transport system for West Yorkshire.

- **Objective 2:** To improve connectivity to support economic activity and growth in West Yorkshire and the Leeds City Region.
- **Objective 3:** To enhance the quality of life of people in West Yorkshire's living in, working in and visiting West Yorkshire.

3.7 The LTP Strategy recognises the need for different types of investment in the transport system using a joined up approach to achieving the Vision and Objectives. The four elements of the Strategy all have the 'MyJourney' theme running through them. They are:

- **Transport Assets:** Ensuring effective management of transport assets to gain maximum value for money, reliability and efficient use;
- **Travel Choices:** Encouraging and influencing more sustainable travel choices by understanding people's wants and needs and tailoring marketing, information, education and support activities to them;
- **Connectivity:** Delivering an integrated, reliable transport system, that enables people and goods to travel as efficiently as possible (in terms of carbon, the economy and quality of life); and
- **Enhancements:** Making targeted technological and structural enhancements to the transport system for greater capacity and performance.

3.8 The themes comprise a number of components (identified as Strategies 1 - 28). These are not in priority order but attempt to logically cover the key considerations and approaches that need to be taken to achieve the 'My Journey' Vision and Objectives of the LTP. These components are discussed in more detail in relation to the assessment of options in Paragraphs 6.3 and 6.4 below, and set out in Table 6.1.

#### Implementation Plans

3.9 The Strategy will be supported by a series of shorter term Implementation Plans, which will cover three year periods and be guided by amounts of funding available and local priorities for that period. The first set of implementation plans are being produced by the LTP partners on a programme areas basis, covering actions during 2011-14.



## 4 Scope of the ISA

### Geographical Scope

- 4.1 The ISA considers the effects of the WTLTP across all the districts in West Yorkshire (i.e. the districts of Bradford, Calderdale, Kirklees, Leeds, and Wakefield).
- 4.2 Specifically in relation to the Habitats Regulation Assessment (HRA), the following European Sites situated within an area approximately 15km from the boundaries of West Yorkshire have also been taken into account:
- Kirk Deighton Special Area of Conservation;
  - Rochdale Canal Special Area of Conservation;
  - North Pennine Moors Special Area of Conservation; and
  - North Pennine Moors Special Protection Area.

### Temporal Scope of the Transport Plan and ISA

- 4.3 As noted, the ‘*MyJourney*’ Strategy will cover a 15-year period between 2011 and 2026, and as far as is practicable, the ISA considers effects over the same time horizon.
- 4.4 The shorter-term Implementation Plans will cover three year periods. The first set of Implementation Plans for delivering the strategy during 2011-14 will be put into action from 1 April 2011. The ISA also examines the effects of the first set of implementation plans.

### Technical Scope of the ISA

- 4.5 The technical scope of the ISA was set out in the Scoping Report<sup>12</sup>, and was consulted on with the statutory environmental bodies and other key stakeholders. Representatives of the statutory environmental bodies were invited for discussions on the scope of the ISA with the LTP Team at Metro (WYPTE) and the ISA consultants, and approaches agreed with them before finalisation and publication of the Scoping Report. The comments received from the environmental bodies and other stakeholders on the Scoping Report

<sup>12</sup> Steer Davies Gleave (2010) - **West Yorkshire Local Transport Plan 3: Integrated Sustainability Assessment - Scoping Report** - West Yorkshire Local Transport Plan Partnership, July 2010

were essentially very positive (See **Appendix A**), and have been taken on board during the on-going process of the ISA.

### ISA Objectives

- 4.6 The SEA Regulations and the standard guidance on other types of assessment do not specifically require the use of objectives and indicators in ISA, but it is a useful way to describe, analyse and compare the effects of a plan. The ISA objectives were identified from the review of the relevant policies and programmes that was undertaken for the Scoping stage of the ISA (see **Appendix B**), the issues arising from the environmental baseline data (see **Chapter 5**) and professional judgement. These were also discussed and agreed with the statutory environmental bodies and other key WTLTP stakeholders during the Scoping stage of the ISA (See **Appendix A**).
- 4.7 A summary of the technical scope of the ISA, and relevant objectives is set out in **TABLE 4.1** on the following pages:

TABLE 4.1 SUMMARY OF THE SCOPE OF THE ISA

Category of Effect	Scope of likely effects	Objectives	
<b>Environmental Impacts</b>			
Population	Changes in population numbers (e.g. though higher density of development, or demolition of homes for transport proposals).	EN1	Have no significant effect change in population forecasts (e.g. ±5%) over the life of the plan.
Climate Change	Greenhouse gas emissions from construction activities. GHG emissions from road traffic, and from power sources for trains.  Changes in GHG emission levels due to changes in traffic patterns and flows, and mode shift.  Extent to which WTLTP policies and proposals contribute to adapting to higher temperatures, greater precipitation levels and more frequent severe weather events.	EN2	Reduce carbon dioxide (CO2) emissions from transport in line with national targets.
		EN3	Adapt to the unavoidable consequences of climate change, for example by reducing the extent of areas of flood risk.
Air Quality	Emissions of carbon monoxide (CO), oxides of nitrogen (NO <sub>x</sub> ), volatile organic compounds (VOCs); particulate matter (PM <sub>10</sub> ) and dust from construction activities, road traffic and changes in emission levels due to changes in traffic patterns and flows.	EN4	Maintain compliance with National Air Quality Standards maintained in all areas where these are predicted to be met during the life of the plan, and secure improvements in air quality generally in West Yorkshire associated with the implementation of specific proposals of the plan, so the number of AQMAs is reduced.

## Integrated Sustainability Assessment

Category of Effect	Scope of likely effects	Objectives	
<b>Noise</b>	<p>Levels of noise from:</p> <ul style="list-style-type: none"> <li>• construction activities; and</li> <li>• transport operations</li> </ul>	EN5	Reduce existing levels of annoyance from noise caused by transport.
<b>Biodiversity, Flora and Fauna</b> (see also <i>Impacts on Habitats Designated for Protection</i> below)	<p>Killing of fauna.</p> <p>Positive or negative effects on environmental resources, food sources and/or habitats.</p> <p>Positive or negative Impacts resulting from changes in pollution levels (air, water or soil).</p> <p>Changes to local hydrology.</p> <p>Changes in levels of disturbance from noise and light pollution, particularly in breeding areas.</p> <p>Creation/improvement on new habitats associated with scheme implementation.</p>	EN6	Lead to no loss of or damage to designated wildlife/biodiversity sites, other priority habitats and protected species attributable to transport, and to secure improvements to habitats associated with the implementation of specific proposals of the plan.
<b>Townscape and Landscape</b>	<p>Visual disruption during construction (plant, lighting, etc.).</p> <p>Introduction of new visual elements into landscape/ townscape,</p> <p>Changes in traffic flow due to modal shift and improvements to streetscape associated with new infrastructure.</p>	EN7	Lead to no loss of or damage to areas or features designated for the protection of cultural heritage, and to secure improvements in townscape/landscape quality associated with the implementation of specific proposals of the plan.

Category of Effect	Scope of likely effects	Objectives	
<p><b>Heritage (including architectural and archaeological heritage)</b></p>	<p>Disruption to character, setting and enjoyment of historic assets during construction.</p> <p>Demolition or loss of those elements which contribute to the significance of historic buildings.</p> <p>Loss or harm to archaeological remains.</p> <p>Harm to the character or appearance of Conservation Areas.</p> <p>Harm to the setting of historic assets through the visual impact of proposals or through increased noise, dust and vibration.</p> <p>Reductions in traffic within historic areas, with consequent reductions in emissions.</p> <p>Rationalization of signage in historic areas</p> <p>Improvements to streetscape of historic areas.</p>	<p>EN8</p>	<p>Lead to no loss or damage to those elements which contribute to the significance of historic assets, and secure improvements in presentation and interpretation of heritage resources associated with the implementation of specific proposals of the plan.</p>
<p><b>Material assets</b></p>	<p>Use of resources in construction and operation of infrastructure and vehicles.</p> <p>Changes in fuel consumption due to mode shift and changes in travel patterns.</p> <p>Recycling and Waste disposal.</p>	<p>EN9</p>	<p>Minimise the use of resources in the delivery of transport infrastructure and operations.</p>

## Integrated Sustainability Assessment

Category of Effect	Scope of likely effects	Objectives	
<b>Soil</b>	Disturbance of contaminated soils during construction. Contamination of soils (e.g. by oil seepage or spillage) from transport operations.	EN10	Lead to no additional contamination of soils, or pollution incidents due to disturbance of contamination attributable to transport, and secure improvements to land quality associated with the implementation of specific proposals of the plan.
<b>Water</b>	Increased risk of flooding due to new transport infrastructure. Pollution of surface water courses by oil seepage or spillage, suspended solids etc. Changes in hydrology/hydrogeology due to infrastructure and transport operations.	EN11	Lead to no additional pollution of surface or groundwater resources attributable to transport, and secure improvements to water quality associated with the implementation of specific proposals of the plan.
<b>Health Impacts</b>			
<b>Death and Injuries in Accidents</b>	Changes in rates of death and injury due to effects of policies and proposals.	H1	Meet LTP targets and trajectories for reduction in the numbers of people killed or seriously injured in transport accidents.
		H2	Reduce deaths or serious illness attributable to transport.
<b>Disturbance from Noise</b>	Sleep disturbance and health issues related to increased levels of stress due to noise ( <i>see above under "Environmental Impacts" for detail</i> ).	EN5	Reduce existing levels of annoyance from noise caused by transport.

Category of Effect	Scope of likely effects	Objectives	
<b>Beneficial effects of more physical activity</b>	Health benefits of greater participation in active modes - e.g. walking and cycling.	H3	Help improve the overall level of health among the population of West Yorkshire through greater participation in active travel (e.g. walking and cycling).
<b>Health Effects of Air Pollution</b>	Local air pollution from transport ( <i>see above under “Environmental Impacts” for detail</i> ).  Effects on incidence of respiratory and pulmonary diseases.	EN4	Maintain compliance with National Air Quality Standards maintained in all areas where these are predicted to be met during the life of the plan, and secure improvements in air quality generally in West Yorkshire associated with the implementation of specific proposals of the plan, so the number of AQMAs is reduced.
<b>Access to Health Facilities</b>	Availability of key health facilities (e.g. GPs surgery, Hospital A&E etc.) within reasonable travel times.  Access to facilities/assets that promote positive health (e.g. leisure, green space, parks, community centres etc.).	H4	Improve the overall levels of accessibility to health facilities and facilities/assets that promote positive health.
<b>Equality Impacts</b>			
<b>Gender Discrimination</b>	Differential access to the transport system and the effect of transport policies, particularly for women, being at greater risk of discrimination or abuse (e.g. issues of personal security, actual and perceived risk of assault, etc.).	EQ1	Reduce reported incidences of gender discrimination and/or gender-based crime on public transport.

## Integrated Sustainability Assessment

Category of Effect	Scope of likely effects	Objectives	
<b>Disability Discrimination</b>	Differential access to the transport system and the effect of transport policies, particularly (but not restricted to) for those with physical and sensory impairments, mental health issues or learning disabilities.	EQ2	Reduce reported incidences of disability discrimination.
		EQ3	Increase the numbers of disabled people who are able to access services.
<b>Race Discrimination</b>	Differential access to the transport system and the effect of transport policies, particularly against Black, Asian and Minority Ethnic people, taking account of current and anticipated demographic composition of the area.  Effects on cultural resources of particular significance for ethnic minority groups (e.g. places of worship, community facilities etc.).  Impact on use due to language/cultural barriers.	EQ4	Reduce in reported incidences of race discrimination and/or racially-motivated crime on public transport.
		EQ5	Increase the numbers people from of BAME groups able to access services.
<b>Discrimination on grounds of sexuality or gender identity</b>	Differential access to the transport system and the effect of transport policies, particularly for gay men, lesbians, bisexuals and transgender people (e.g. issues of personal security, actual and perceived risk of assault, etc.).	EQ6	Reduce reported incidences of discrimination and/or crime on public transport related to victims' sexuality.
<b>Age Discrimination</b>	Differential access to the transport system and the effect of transport policies, particularly for children, younger people, and older people (e.g. access to health, education and community facilities).	EQ7	Reduce reported incidences of age-related discrimination.
		EQ8	Increase the numbers of age groups that are able to access services.



Category of Effect	Scope of likely effects	Objectives	
<b>Religious Discrimination</b>	Differential access to the transport system and the effect of transport policies, particularly (but not restricted to) Christians, Muslims, Buddhists, Jews, Sikhs and Hindus (e.g. cultural or religious requirements for travel at particular times).  Effects on cultural resources of particular significance for religious groups (e.g. places of worship).	EQ9	Reduce reported incidences of religious discrimination and/or religiously-motivated crime on public transport.
<b>Social Deprivation/Exclusion</b>	Access to jobs, education, shops and other social facilities.	EQ10	Increase the numbers of people from excluded groups that are able to access services.
<b>Impacts on Economy</b>			
<b>Impacts on Key Economic Indicators</b>	Quantification of the impacts on key sub-regional indicators, e.g.: <ul style="list-style-type: none"> <li>• GVA/GDP;</li> <li>• Productivity; and</li> <li>• Employment.</li> </ul>	EC1	Make a positive contribution to enhanced productivity and competitiveness among all businesses in the plan area.
		EC2	Help reduce in levels of unemployment, particularly in areas of the region with high levels of unemployment / low socio-economic status / poor accessibility to good quality employment opportunities.

## Integrated Sustainability Assessment

Category of Effect	Scope of likely effects	Objectives	
<b>Economic Policy</b>	Contribution of transport policies and proposals to the key sectors/areas of the sub-regional economy and the objectives set out in economic development strategies.	EC3	Be consistent with policies and proposals of economic development strategies in the plan area.
<b>Localised Economic Effects</b>	Effects of transport policies and proposals on: <ul style="list-style-type: none"> <li>• individual businesses and properties;</li> <li>• the employment market;</li> <li>• the housing market; and</li> <li>• the commercial property market.</li> </ul>	EC4	Maximise positive effects on local economic markets through transport policies and proposals.
<b>Changes in Access to Factors of Production</b>	Changes for business in terms of accessibility to: <ul style="list-style-type: none"> <li>• Raw materials;</li> <li>• Labour; and</li> <li>• Markets.</li> </ul>	EC1	Make a positive contribution to enhanced productivity and competitiveness among all businesses in the plan area.
<b>Cumulative Impacts</b>			
<b>Cumulative Impacts</b>	Inter-relationships of the above	C1:	Ensure no significant adverse effects caused by the interaction of environmental effects, where these effects may in themselves not be significant.
		C2:	Maximise the cumulative benefits associated with the implementation of specific proposals of the plan.

## 5 Baseline Conditions

### Introduction

- 5.1 In this chapter, we set out a summary of the baseline conditions against which the effects of the WYLTP have been considered within the ISA. More detail on the information set out here may be found in **Appendix C** to this report.

### Environment

#### *Population*

- 5.2 The population of West Yorkshire is projected to grow 14% over the WTLTP period, from 2.1 million presently to 2.4 million. The population will also age, with the number of people over 60 increasing by 40%, while the proportion aged 18 and under age will only grow by 3%).
- 5.3 The population of Bradford is projected to grow twice as quickly as the other districts in West Yorkshire (all of which are projected to grow at a similar rate) over the WTLTP period.

#### *Carbon Emissions and Climate Change*

- 5.4 In 2007, road traffic emitted around 4.3 million tonnes of carbon dioxide, and the current trend sees emissions increasing by just over 1% annually.
- 5.5 In the future, it is likely that CO<sub>2</sub> emissions from road transport in West Yorkshire will fall, in line with national projections, principally due to a greater uptake of lower-carbon fuels and improved vehicle technologies.
- 5.6 In terms of the likely effects of climate change in West Yorkshire by the 2020s, it is estimated that mean temperatures will increase by some 1.3°C, and maximum temperatures by about the same amount. Winters are predicted to be slightly wetter, and summers considerably drier.

#### *Local Air Quality*

- 5.7 In West Yorkshire there are 26 Air Quality Management Areas (AQMAs) related to road traffic emissions of NO<sub>2</sub> and a further two declared because the daily PM<sub>10</sub> standard is exceeded.

- 5.8 There has been a general trend of improving urban background NO<sub>2</sub> levels in West Yorkshire. C2.15 All Districts in West Yorkshire comply with the annual average PM<sub>10</sub> standard, and trends are for a general reduction in levels across the area.
- 5.9 Estimates of road transport emissions of NO<sub>2</sub> and PM<sub>10</sub> in the vicinity of the West Yorkshire trunk / principal road network indicate a long term reduction, most probably due to improvements in engine efficiency and abatement technologies.

### *Noise*

- 5.10 Many areas of West Yorkshire already experience high levels of traffic noise, principally associated with the motorway and trunk road networks.
- 5.11 More than half the population of West Yorkshire experience L<sub>A10,18-hour</sub> noise levels ≥ 55 dB, and more than 20,600 people have been identified as living in locations that should be investigated for action to reduce traffic noise. About 4,000 people experience noise from railways to a similar level, with about 400 people living in areas that should be investigated for further action in this respect.

### *Light Pollution*

- 5.12 Between 1993 and 2000 light pollution increased 24% nationally. Within West Yorkshire, the main areas where light pollution increases was at the periphery of the urban areas, and this encroachment into darker areas is likely to continue.

### *Biodiversity, Flora and Fauna*

- 5.13 The most sensitive areas in terms of biodiversity in West Yorkshire are:
- Denby Grange Colliery Ponds in Wakefield, which supports great crested newts.
  - The South Pennine Moors in Kirklees and Calderdale, which support various important habitat types such as Northern Atlantic wet heaths; European dry heaths; blanket bogs; transition mires; quaking bog; and old sessile oak woods. This area also is home for breeding short-eared owl, merlin, and golden plover and an internationally important assemblage of breeding birds.
  - The Peak District Moors in Bradford and Calderdale districts supports breeding short-eared owl, merlin and golden plover.

- 5.14 More generally, there are 32 sites in West Yorkshire designated as Sites of Special Scientific Interest (SSSIs) for their wildlife or geological importance, accounting for around 26% of the land area. Whilst there are an increasing number of SSSI sites in favourable or recovering condition (18%) over the past year, the region is falling short of the target of 95%.
- 5.15 There are also a number of Special Areas of Conservation (SAC) and Special Protection Areas (SPAs) within a relatively close proximity of the West Yorkshire boundaries that have also been taken into account in this assessment.

*Landscape and Townscape*

- 5.16 Most of Calderdale and Bradford, and small parts of Kirklees and Leeds fall within the Southern Pennines, typified by large sweeping landforms with an open character deeply trenched by narrow valleys and wooded cloughs. The area has extensive views from elevated locations in all directions.
- 5.17 Most of the rest of Calderdale, Kirklees and Bradford is within the Yorkshire Southern Pennine Fringe, sloping from west to east and dissected by steep-sided valleys. The urban areas are mainly confined by valleys, with dramatic views between settlements and the surrounding hillsides. Elsewhere, there is pastoral farming with predominantly broadleaved woodlands on steep valley sides providing an impression of a well wooded landscape even though tree cover is relatively sparse overall.
- 5.18 Most of Leeds and Wakefield, and parts of Bradford and Kirklees districts fall within the ‘Nottinghamshire, Derbyshire and Yorkshire Coalfields’ with widespread evidence of industrial activity in a complex mix of built-up areas, industrial land, dereliction and farmed open country. However there are substantial areas of intact agricultural land in both arable and pastoral use.
- 5.19 Eastern parts of Leeds and Wakefield are within the Southern Magnesian Limestone area. This is an elevated ridge with smoothly rolling landform, dissected by dry valleys with long views over surrounding lowland. The main non-urban land use is intensively farmed arable land. There are a large number of country houses and estates with parkland, estate woodlands, plantations and game coverts in this area, as well as woodlands combining with open arable land to create a wooded farmland landscape in some parts.

### *Heritage (Built and Natural)*

- 5.20 The most important heritage feature in West Yorkshire is the World Heritage Site at Saltaire near Bradford, designated in 2001. This is a purpose-built "model" Victorian industrial village that was built in the nineteenth century.
- 5.21 There are many listed buildings and Scheduled Ancient Monuments across West Yorkshire, many reflecting its national and global importance through the industrial revolution and Victorian times. Overall, there are 105 heritage sites that have been identified as "at risk" by English Heritage.
- 5.22 The English Heritage 'Register of Historic Parks and Gardens of special historic interest in England' identifies over 1,600 sites in West Yorkshire that have been assessed to be of national importance.

### *Material Assets*

- 5.23 More than 1 million tonnes of fuel is consumed by road traffic in West Yorkshire annually. 64% of this is used for passenger transport, and 36% for freight movement.
- 5.24 2.53% of land in Yorkshire and the Humber is designated as previously developed land that has been vacant or derelict for more than 5 years. This is higher than the national average of 1.56% overall, and the third highest of the regions in England.

### *Soil and Water*

- 5.25 The Agricultural Land Classification (ALC) indicates there is little high quality soil in West Yorkshire.
- 5.26 The condition of water bodies in the Aire and Calder catchment are generally stable or improving, with a 4 point improvement envisaged in the % assessed at good or high biological status. Similarly, the condition of water bodies in the Wharfe and Ouse catchment envisage a 3 point improvement in the % assessed at good or high biological status, and a 2 point improvement in the % at good status overall (chemical and ecological).

### **Health**

- 5.27 West Yorkshire is typically worse than the national average across a range of health indicators, although with some variation within the area. Key points include:

- 22.4 % of adults are obese, compared with 21.8% across England as a whole. The figure is highest in Wakefield at 26.9%;
- Deaths due to cancer are lower than average, at 234 per thousand compared with 253. However, the rate in Wakefield is high at 274.
- 16.6% of residents have a limiting long-term illness (LLTI) compared with the England average of 15%;
- Life expectancy for Yorkshire and the Humber was the third lowest of the English regions for both males and females.

### Equality Target Groups

#### *Gender*

- 5.28 The gender balance in West Yorkshire is 49.1% males and 50.9% female, which broadly mirrors the national balance in England.

#### *People with Disabilities*

- 5.29 The proportion of the total population with disabilities across West Yorkshire is 0.67%, which is slightly higher than the average for England. However, it should be noted that the proportion is highest in Wakefield, at 0.81%.

#### *Black and Minority Ethnic Groups*

- 5.30 The population of West Yorkshire is predominantly white, although this is slightly less than the proportion for England as a whole. In Wakefield, there is a relatively small proportion of the population from ethnic minority backgrounds. The next largest ethnic group is Asian (including Asian British), the proportion of which is twice as high in the sub-region as for England as a whole. In particular, Bradford has a relatively large population in this group. Proportions of other ethnic groups are broadly in line with the average for England.
- 5.31 Asian and Black communities in West Yorkshire typically comprise generally larger households with a younger age profile than the white population.
- 5.32 More recently, due to the accession of Eastern European states into the European Union, there reportedly has been a significant increase in the number of economic migrants from overseas to some parts of the sub-region, e.g. Leeds.

*Sexuality or Gender Identity*

- 5.33 The proportion of people identifying themselves as living in same-sex couples in West Yorkshire is broadly similar to the England average at 1.9%.
- 5.34 There is no other available information on the incidence of homosexual or transgender people in West Yorkshire.

*Age Profile*

- 5.35 Yorkshire and Humber has a marginally younger population than for England as a whole. Within the sub-region, this is particularly the case in Bradford and Leeds. This is due to the more ethnically diverse population and the greater number of students living in these districts.
- 5.36 However, over time the over 60s age group will increase by 40% by 2026, compared with the 18 and under age group that will only increase by 3%. This indicates an ageing population over time.

*Faith Groups*

- 5.37 The majority of people in West Yorkshire identify themselves as Christian, and at 68%, the proportion of these is just below the average for England. However, in Wakefield, this proportion is significantly higher at 78%, and in Bradford is significantly lower at 60%. The proportion of Muslims across West Yorkshire at 7% is more than double the average for England, and in Bradford and Kirkless, this proportion is even higher at 16% and 10% respectively. In contrast, the proportion of Muslims in Wakefield is 1%.

*Multiple Deprivation*

- 5.38 A key characteristic of West Yorkshire is the significant variation in the levels of deprivation, both between Districts and between different neighbourhoods and communities within each district.
- 5.39 Bradford ranks 32<sup>nd</sup> of all districts in England, placing it within the most deprived 10%. Within the income and employment domains Bradford ranks 4<sup>th</sup> and 6<sup>th</sup> respectively against national scores. However, there are pockets of deprivation across the sub-region, particularly in parts of Halifax, Huddersfield, Leeds, Castleford and Hemsworth.

*Economy*

- 5.40 West Yorkshire is one of the most dynamic and significant local economies in the UK outside of London. Leeds has experienced fast



growth over recently years, and is firmly established as a leading UK financial services and commercial centre outside London. The head offices of many financial institutions and customer service centres are based in West Yorkshire.

- 5.41 West Yorkshire has a workforce of over 1 million, and an unemployment of around 6%. The average GVA per head is 39,600 and the total annual GVA is £36.7 million. Growth between 2008 and 2010 was 2.0%, and almost 18% growth is envisage in the period 2008-15.
- 5.42 Historically, manufacturing and textiles have been the primary sectors of the local economy. The area has supply chains and centres of excellence for training, technology and design supported by further and higher education expertise specifically in these sectors. Recent development has been more diverse, including expansion in e-business, digital, print, bio-sciences and chemical clusters. Skills in manufacturing are supplemented by graduates emerging from the four universities in the sub-region, specialising in engineering, textiles and advanced manufacturing; digital media, healthcare and business/management.
- **Bradford's** economy is quite large, and linked to Leeds. However, productivity levels are relatively low, and unemployment is above the regional average. Rates of pay are relatively low for full-time jobs, but rates for part-time jobs are higher than average. There is a high proportion of residents with low levels of qualification. Employment is heavily dependent on Public Administration, Education and Health, Distribution and hotels.
  - The economy in **Leeds** has been affected recently by the economic downturn, and employment growth had been slowing even before this. More job losses are expected in the short-term, primarily in financial and business-related services. The overall level of employment remained relatively stable. Leeds has a relatively high productivity rate (GVA/head), and a very large number of young adults relative to the regional average. Employment is concentrated in banking, finance and insure. Leeds has higher levels of qualification than the regional average.
  - **Wakefield** has above average levels of productivity. Unemployment is similar to the regional average, although its claimants rate is the lowest in West Yorkshire. Employment is

concentrated in public administration, education, health, distribution, and the hotel and restaurant sector. It has a relatively high proportion of people with low/no qualification.

- **Calderdale** has the smallest economy in West Yorkshire, contributing less than 10% of the total West Yorkshire GVA in 2008. It has been hard hit by the recession, and is expected to have less than average growth. However, productivity per worker is the highest within the West Yorkshire and above the regional average and unemployment is below the regional average.
- **Kirklees** provided 14% of the total output in West Yorkshire in 2008, but has the lowest productivity per worker. Unemployment levels are lower than average, and employment in the area is heavily dependent on Public Administration, Education & Health, Distribution, Hotels, Restaurant and Manufacturing. The area has a higher proportion of employment in Manufacturing than the region as a whole.

## 6 ASSESSMENT OF EFFECTS OF THE WTLTP

### Overview and Summary

- 6.1 The ISA has examined the proposed strategy set out for the WTLTP, which the LTP Team at Metro is indicated to be **Option 2** as described in **Table 7.1** in Chapter 7 (identified as the option likely to be the closest reflection of what is brought forward, taking account of the likely availability of funding), and compared this with the alternative of projecting the baseline situation that would prevail if the WTLTP were not put into operation.
- 6.2 Within the context of the ISA, in order to meet with the requirements of the SEA Regulations, this examination (as far as is possible at this stage of development of the WTLTP and the information available at this time) has included the prediction of the extent and magnitude of impacts, the time period over which they will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether there are cumulative and/or synergistic effects.
- 6.3 The significance of identified effects of the WTLTP strategy considered in the ISA was established by making reference to:
- the characteristics of the plan, including the environmental, health, equalities and economic problems identified as relevant, infrastructure projects and other activities it proposes, and their relevance to compliance with legislation or recognised policy guidelines; and
  - the nature of the predicted effects and the area likely to be affected (e.g. extensive magnitude and spatial extent of the effects, or effects on designated areas of environmental protection).
- 6.4 A scoring system was not applied to the assessment of significant environmental effects. This is because the scale of the SEA is relatively broad, the information needed to make a judgement is not generally available, and the results would not be very meaningful. In addition, the SEA regulations do not require such a system. Instead, the results have been judged on a qualitative scale of significance, in line with Government guidance on SEA for transport plans. A summary of the assessment is set out in **Table 5.1** following:

**TABLE 6.1 SUMMARY OF THE ISA OUTCOMES**

Issue	Effect	Details
<b>Environmental effects</b>		
Population	Neutral	No significant variation in population levels from the baseline.
Climate change	Moderate beneficial	Reduction in CO2 by 20% (from modal shift, smooth traffic flow, new processes, support of new technologies).
Air quality	Slight beneficial	Assumed a reflection of reduced CO <sub>2</sub> emissions. Not possible to determine localised effects e.g. in AQMAs.
Noise	Neutral	Modal shift from car will lead to a reduction in traffic flows.
Biodiversity, flora and fauna	Slight adverse	As a result of major schemes (Apperley Bridge, Kirkstall Forge, Shipley Eastern Relief Road ): <ul style="list-style-type: none"> <li>• Increased risk of fauna disturbance.</li> <li>• Small risk of physical loss of or damage to habitats and the potential for further indirect loss or damage.</li> <li>• No significant increase in the incidence of killing fauna.</li> <li>• Unlikely significant changes to growing conditions.</li> </ul> As further schemes develop an Appropriate Assessment, under the terms of the Habitats Regulations, should be conducted, to determine local effects.
Townscape and Landscape	Neutral	Most schemes in existing urban areas. Need to ensure potential effects are avoided or minimised when planning and developing schemes.

Issue	Effect	Details
Heritage (architectural and archaeological)	Neutral	Most schemes in existing urban areas. Need to ensure potential effects are avoided or minimised when planning and developing schemes.
Material Assets	Moderate benefit	Reduction in energy consumption as a result of mode shift, improved environmental policies and few major schemes.
Soil	Neutral	As few major schemes planned, yet care must be taken during construction of the schemes
Water	Neutral	Schemes located close to or over water need to ensure adverse effects are avoided.
<b>Health Effects</b>		
Death and Injuries in Accidents	Moderate benefit	Continuation and expansion through engagement of local communities in safer roads initiatives
Disturbance from Noise	Neutral	No significant worsening or improvement of exposure to noise from transport sources identified.
Beneficial effects of more physical activity	Slight benefit	Encouragement of increased active travel and lifestyle changes. However health is affected by other variables eg income, diet, living conditions which the LTP does not address.
Health effects of Air pollution	Slight benefit	Improvements in air quality. However health is affected by other variables eg income, diet, living conditions which the LTP does not address.
Access to Health facilities	Neutral	Insufficient information to provide an evaluation.

## Integrated Sustainability Assessment

Issue	Effect	Details
<b>Equality effects</b>		
Gender Discrimination	Neutral	Some slight benefit from improvements to public transport reliability and potentially through the road and user hierarchy, subject to detail, but few other positive aspects and emphasis on economic benefits may work against women's interests in some respects.
Disability Discrimination	Slight benefit	Some slight benefit from improvements to public transport reliability, but few other specific improvements.
Race Discrimination	Neutral	Some slight benefit from improvements to public transport reliability, but few other specific improvements.
Discrimination on grounds of sexuality or gender identity	Neutral	Some slight benefit from improvements to public transport reliability, but few other specific improvements.
Age Discrimination	Slight benefit	Some slight benefit from improvements to public transport reliability, but few other specific improvements. Increasing needs of an aging population not specifically addressed.
Religious Discrimination	Neutral	Few proposals of the strategy that address existing inequalities, but also no specific measures that will exacerbate these.
Social Deprivation /Exclusion	Slight benefit	Key issue is likely benefits in terms of more jobs and general economic support. Other benefits from improvements to public transport reliability and encouraging active travel.
<b>Effects on the economy</b>		
Impacts on key economic indicators	Slight benefit	Increase in employment and productivity, particularly in Leeds city centre.

Issue	Effect	Details
Economic Policy	Slight benefit	Congestion reduction and reliability improvements will support productivity and competitiveness of businesses.
Localised Economic Effects	Slight benefit	Congestion reduction and reliability improvements will support productivity, access to markets, materials and labour and improved delivery times.
<b>Cumulative Impacts</b>		
Cumulative Impacts	Neutral	There are no instances identified where slight effects in combination will lead to additional significant effects.

6.5 The basis on which the assessment of the various categories of effect has been undertaken during the SEA was discussed with the statutory environmental bodies as part of the scoping stage, and has been endorsed by them as reflected in the comments received from them (see **Appendix A**).

**Environmental Effects**

*Population*

6.6 The work that has been done in examining the effects of the WTLTP strategy using the UDM assumed a planning-led increase in population levels in West Yorkshire based on forecasts set out in the Regional Spatial Strategy (RSS)<sup>13</sup> as a “do-minimum” scenario.

6.7 The outputs from the UDM for the most likely WTLTP strategy do not indicate a significant variation in population levels from the baseline case in West Yorkshire, indicating the strategy would have a neutral effect in this respect.

*Climate Change*

6.8 The outputs from the UDM regarding carbon dioxide emissions from transport are set out in **Table 6.2** following:

**TABLE 6.2 CHANGES IN CO<sub>2</sub> EMISSIONS (COMPARED WITH DO-MINIMUM) 2025**

District	CO <sub>2</sub> from cars
Leeds	-18.5%
Bradford	-18.8%
Calderdale	-21.5%
Kirklees	-20.2%
Wakefield	-19.0%

<sup>13</sup> It should be noted that at the time of writing, the position regarding the RSS is ambiguous. The direction by the Secretary of State to disregard RSS’s pending their abolition is presently subject to a second judicial review challenge. If this is successful then it would be unlawful to have regard to the proposed revocation of the regional strategies in the Localism Bill. For the time being, the RSS remains part of the development plan as presently legally defined.



District	CO <sub>2</sub> from cars
West Yorkshire	-19.1%

- 6.9 As these figures are comparisons with the do-minimum case, the reductions are additional to any savings in emissions that would be due to improved efficiency of motor vehicles from technological innovation by the motor industry and increased uptake of lower carbon vehicle technologies and alternative fuels by businesses and the public in general. The LTP strategy recognises this, and supports provision of refuelling infrastructure for a range of alternative or renewable energy sources, particularly developing a network of electric vehicle charging infrastructure and information for private vehicles, public service vehicles and freight. It specifically will encourage the use of rail stations as vehicle charging points combining this with local micro-generation of electricity where it is feasible and affordable.
- 6.10 In addition to this, the WTLTP strategy envisages that carbon emissions also will be reduced by improving the operational efficiencies of the transport network and development of low carbon maintenance practices and initiatives, such as increasing the use of low carbon energy sources such as solar power or more energy-efficient fixtures such as LED lighting. Changing processes to lay road surfaces at lower temperatures will help cut carbon emissions from maintenance works as well as reducing their duration.
- 6.11 Also, measures envisaged by the WTLTP strategy to smooth traffic flows and speed up the response to incidents on the network will also help slow the growth in carbon emissions due increasing traffic flows over time in the baseline case. Tendering and procurement processes adopted by WYLTP partners will include a carbon budgeting approach to support and future proof the implementation of new low carbon technologies.
- 6.12 As such, it is clear that the WTLTP strategy would make a major contribution to the achievement of national targets for the reduction of carbon emissions overall in the context of West Yorkshire, and may be considered to represent a moderate beneficial effect.

*Air Quality*

- 6.13 Similarly, the outputs from the UDM in respect of CO<sub>2</sub> emissions are indicative of the reductions in emissions in local air pollutant emissions from road traffic that would be likely to occur as a result of the implementation of the WTLTP.
- 6.14 On this basis, it may be assumed that just under a 20% reduction in pollutant emissions would result from the implementation of the LTP, over and above any improvements due to changes in vehicle technology and adoption of alternative fuels.
- 6.15 However, this estimate comes with a caveat. Other factors will affect the actual change in air pollutants. For example, as new diesel penetration in the vehicle fleet increases, primary emissions of NO<sub>2</sub> will also increase. So, despite a 20% reduction in CO<sub>2</sub> as noted above, there could be very little reduction, or even a slight increase in NO<sub>2</sub>. This is important because it is exceedances of NO<sub>2</sub> standards that have resulted in designation of the majority of AQMA's in West Yorkshire.
- 6.16 It is not possible to indicate from this strategic analysis whether there would significant improvements in air quality in specific locations, and in particular within identified Air Quality Management Areas. Nevertheless, it is concluded that the overall reductions in emissions predicted would be likely to lead to a slight beneficial effect in terms of air quality.

*Noise*

- 6.17 The LTP strategy indicates that routing strategies and priority locations for noise mitigation action will be informed by the hierarchy of routes and users. Where new infrastructure is required, consideration will be given during the scheme development process to ensure that it is suitably sited to minimise the noise impacts on sensitive receptors, particularly in residential areas.
- 6.18 The outputs from the UDM indicate the following shift from travel by car to other modes, as shown in **Table 6.3** would result from the implementation of the WTLTP strategy:

**TABLE 6.3 REDUCTIONS IN CAR MODE SHARE (COMPARED WITH DO-MINIMUM) 2025**

District	Car Mode Share
Leeds	-21.2%
Bradford	-17.4%
Calderdale	-18.0%
Kirklees	-18.1%
Wakefield	-16.9%
West Yorkshire	-19.1%

6.19 This mode shift from car will lead to a reduction of traffic flows by a lesser amount, allowing for car occupancy rates and the composition of traffic (i.e. including buses, lorries and other vehicles). Overall, this is likely to have a neutral effect, as it is unlikely that any perceptible change in traffic noise levels will result from the implementation of the WTLTP.

*Biodiversity, Flora and Fauna*

6.20 The specific schemes that are identified in the WTLTP strategy are expected to be primarily located in Leeds and Bradford city centres. Although they are located within 10km of the boundary of the South Pennine Moors SAC/SPA<sup>14</sup>, they are clearly wholly located within the urban areas. As such, it is considered that these would have no impact on the protected areas.

6.21 The proposal for a new station at Apperley Bridge is located within 10km of the boundary of South Pennines Moors SPA. It is assumed that the new station would be built on on greenfield land between Leeds and Bradford.

6.22 The new station at Kirkstall Forge may be located just outside the 10km buffer around the South Pennine Moors SPA. However, it is likely that this would be built on on a greenfield site right next to

<sup>14</sup> The “buffer zone” concept as an approach to determining the likelihood of significant impacts on these areas was agreed with Natural England, and is explained further in Paragraph 8.18 following.

the River Aire corridor, and therefore the potential for significant adverse effects on biodiversity is increased.

- 6.23 The Shipley Eastern Relief Road (identified under Connecting Airedale which is one of the SPS schemes) will fall within the 10km buffer and also impacts on the River Aire corridor because a new bridge over the river is needed.
- 6.24 Specifically in relation to the likely impacts on Habitats Designated for Protection, it is likely that as a result of the implementation of these schemes:
- There will be no significant increase in the incidence of killing of fauna;
  - There is a small risk of physical loss of or damage to habitats, and also the potential for further indirect loss or damage.
  - There are not likely to be any significant changes to growing conditions.
  - There is an increased risk of disturbance to fauna.
- 6.25 While this focus has been related to the most sensitive areas, any of the schemes in the major programme identified in the WTLTP strategy carries the risk of potentially causing harm to biodiversity, flora and fauna in West Yorkshire. The schemes in the programme comprise:
- **In Kirklees:**
    - Birstall Smithies: Major junction Improvements on A62/A652 - Traffic Mangement/Bus Priority/signals
    - Cooper Bridge KSEZ: Continued development of Major Scheme
    - Longroyd Bridge: Major junction Improvements on A62 - Traffic Mangement/Bus Priority/signals
    - Ainley Top/Cavalry Arms: Support for northern gateway appraisal part of LDF
    - Batley Gateway: Major junction Improvements on A62/A652 - Traffic Mangement/Bus Priority/signals
  - **In Leeds:**
    - Horsforth & Rodley Roundabouts: Improvements for safety, pedestrians and cycles, TLP for buses to airport etc link to A65 scheme.

- Armley Gyratory: Crucial for freeing up the City Centre.
- Moortown Corner.

**I In Wakefield:**

- Wakefield City centre implementation plan development (Westgate, Ings Road, Chantry Roundabout).
- Castleford Masterplan.
- Normanton Masterplan.
- Knottingley Masterplan.
- Pontefract Masterplan.
- Town End junction, Pontefract.
- Park and Ride sites.
- HOV sites.
- Cycle network development.

6.26 The overall conclusion from the assessment is that the implementation of the LTP strategy will have a slight negative effect in terms of biodiversity, flora and fauna.

6.27 At the present time, there is insufficient detail available about the precise location and form of the proposed schemes to enable any more detailed assessment of the likely effects on biodiversity, flora and fauna. It is therefore important that during the course of the development and planning of these schemes, an Appropriate Assessment under the terms of the Habitats Regulations is conducted.

*Townscape and Landscape*

6.28 As noted in relation to biodiversity, flora and fauna above, the major schemes identified in the WTLTP will primarily be located within existing urban areas in Leeds and Bradford City Centre. At a local level, these schemes may impact on the townscape which will provide their context, and care will need to be taken during the planning and development of these to ensure that any such potential effects are avoided or minimised. The schemes will also provide the potential to improve and enhance the local townscape. However, at a strategic level it is unlikely that any significant effects will occur.

6.29 Where major schemes are to be provided outside the main urban areas, as for the new stations planned at Apperley Bridge and Kirkstall Forge or the scheme at Shipley, it is unlikely that these schemes will have a significant impact on the visual quality of the areas where they are to be located at a strategic level.

*Heritage (including architectural and archaeological heritage)*

6.30 As noted in relation to biodiversity, flora and fauna above, the major schemes identified in the WTLTP will primarily be located within existing urban areas in Leeds and Bradford City Centre. At a local level, these scheme may impact on the heritage resources in the immediate vicinity of the schemes, e.g. listed buildings and/or undisturbed archaeological resources) and care will need to be taken during the planning and development of these to ensure that any such potential effects are avoided or minimised. It may also be appropriate, if the locations of the schemes are considered to be areas where undisturbed archaeological resources are likely to be discovered, that arrangements are made for a watching brief to be provided by suitably-qualified organisations during the construction of the schemes.

6.31 Where major schemes are to be provided outside the main urban areas, as for the new stations planned or the scheme at Shipley, it is unlikely that these schemes will have a significant impact on heritage resources in the areas where they are to be located at a strategic level. However, here again it may be appropriate to consider a watching brief to be arranged during the construction of the schemes.

*Material assets*

6.32 Because of the relatively few major schemes included in the WTLTP strategy, and the financial constraints on the first set of Implementation Plans, it is unlikely that the implementation of the WTLTP will lead to a significant change in the use of resources in construction and operation of infrastructure and vehicles in West Yorkshire in comparison with the baseline case. Implementation of the WTLTP strategy is of itself also not likely to lead to any significant increase in recycling or reduction of waste sent for disposal, although more general continual improvements in the environmental management policies of the WYITA, the district councils and other transport agencies in West Yorkshire may incidentally lead to such improvements .

- 6.33 The UDM analysis of the effects of implementing the WTLTP strategy indicates that there would be an average 19% reduction in the mode share of travel by car, with a similar reduction in the amount of energy consumed for travel as a consequence. This would constitute a moderate beneficial effect.

*Soil*

- 6.34 Because of the relatively few major schemes included in the WTLTP strategy, and the financial constraints on the first set of Implementation Plans, it is unlikely that the implementation of the WTLTP will lead to significant adverse effects in terms of the disturbance of contaminated land, or the additional contamination of soils in West Yorkshire in comparison with the baseline case.
- 6.35 The greatest potential for the disturbance of contaminated land would be in relation to the schemes located in Leeds and Bradford city centres, and care should be taken to identify the risks associated with the construction of the schemes during the scheme development process, and to ensure appropriate mitigation measures are developed to avoid these where necessary. Where major schemes are to be provided outside the main urban areas, as for the new stations planned at Apperley Bridge and Kirkstall Forge or the scheme at Shipley, care may need to be taken during the construction of these schemes to ensure that pollution is not caused that contaminates or reduced the quality of soils.

*Water*

- 6.36 The specific major schemes identified in the WTLTP in Leeds and Bradford city centres are unlikely to have any significant adverse impacts on surface or ground water resources.
- 6.37 Similarly, the proposals located outside the urban areas are do of themselves not represent a major risk to surface or ground water resources. However, the new station proposed at Kirkstall Forge will be located close to the River Aire corridor, as is the Shipley Eastern Relief Road which will required a new bridge over the river, and therefore the potential for significant adverse effects is increased in these cases .
- 6.38 Care clearly will be needed to ensure that significant adverse effects are avoided in these cases. However, it is likely that consideration of the drainage and hydrogeological effects of the schemes during the scheme development process, and the adoption of standard

environmental management practices to protect surface and groundwater resources during the construction phase will be sufficient to achieve this.

### Health Effects

#### *Death and Injuries in Accidents*

- 6.39 The WTLTP strategy foresees the continuation and expansion through strong engagement of the wide range of ‘Safer Roads’ initiatives currently delivered in partnership with local communities and other agencies in West Yorkshire. This will ensure that the number of people killed and seriously injured on the transport network continues to reduce in line with the targets and trajectories that will be set in the Implementation Plans. On this basis, it is considered that the WTLTP will have a moderately beneficial effect in terms of safety.

#### *Disturbance from Noise*

- 6.40 As noted in **Paragraph 6.19** above, the implementation of the WTLTP strategy is considered likely to have a neutral effect in terms of levels of exposure to noise, and therefore is likely to have a similar neutral effect in terms of the health effects of noise exposure.

#### *Beneficial effects of more physical activity*

- 6.41 The WTLTP strategy notes that striving to improve their health is an important motivator for people to change their lifestyles, and that the encouragement of increased physical activity such as walking and cycling through a range of partners including GPs, sports and leisure clubs and private health advisors will be a key element of the implantation of the WTLTP.
- 6.42 Clearly, the successful implementation of such measures and increased participation in active travel will inevitably have a beneficial effect in terms of public health. However, it must be recognised that this is only one of a number of key determinants of health, including other variables such as income, living conditions, diet, etc. On this basis, the WTLTP strategy is considered as likely to have a slight beneficial effect in terms of health effects in this respect.



*Health Effects of Air Pollution*

- 6.43 As noted in **Paragraph 6.16** above, the overall reductions in local air pollutant emissions predicted as arising from implementation of the WTLTP strategy would be likely to lead to a moderate beneficial effect in terms of air quality.
- 6.44 Clearly, the successful implementation of such measures and consequent improvements in local air quality will inevitably have a beneficial effect in terms of public health. However, it must be recognised that this is only one of a number of key determinants of health, including other variables such as income, living conditions, diet, etc. On this basis, the WTLTP strategy is considered as likely to have a slight beneficial effect in terms of health effects in this respect.

*Access to Health Facilities*

- 6.45 On the basis of the available information, it is not possible to ascertain whether the implementation of the WTLTP strategy will change levels of accessibility to health facilities in West Yorkshire, and it is therefore also not possible to reach any conclusions on the likely health effects of any such changes.

**Equality Effects***Gender Discrimination*

- 6.46 Fewer women drive than men, and women drivers are likely to have less access to the use of a car. Consequently, women often have a greater reliance on walking on footpaths and local roads which would need to be adequately considered in the priority route and user hierarchies, especially for maintenance. This is also an issue for sweeping and snow clearing especially for older people. Recent surveys also show that pavement maintenance is the key transport priority for local people especially older people who are disproportionately women.
- 6.47 The emphasis in the WTLTP strategy on minimising congestion could have an adverse impact on women if this results in reallocation of road space and time - for example by reducing crossing times for pedestrians. However, the fact that women tend to drive less also leads to their greater reliance on public transport, measures to improve its reliability can benefit them. The hierarchy approach could reduce disruption to main route journeys by public transport

especially if the prioritisation policy includes preference for public transport and taxis over private motoring and freight.

- 6.48 Women more frequently have primary responsibility for the care of their children, which often exacerbates problems regarding access to travel, as they may need to combine escorting children to school or childcare with travel to work, shopping or other activities, involving trip chains to multiple destinations. Maximising cost benefit effectiveness given current modelling practices could emphasise economic activity and business travel to the detriment of other trip purposes such as accompanying children.
- 6.49 Despite men (particularly young men) being the most frequent victims of violent crime and assault, women have greater concerns regarding personal safety. Although broad measures to increase public transport use may increase informal surveillance and deter acts of violence, there is little in the WTLTP strategy that is likely to specifically improve women's personal safety when travelling.
- 6.50 Overall, from the evidence available, this analysis indicates that in combination there will be neutral effect for women generally arising from the implementation of the WTLTP strategy.

*Disability Discrimination*

- 6.51 The majority of disabled people are elderly and very vulnerable to poor pavement maintenance - evidence suggests it can even be a deterrent to going outside the home especially in bad weather. Prioritising strategic routes for maintenance will reduce the standards of local footpaths, and so disproportionately affect people with disabilities.
- 6.52 Disabled people also rely heavily on the maintenance of information systems and infrastructure such as seating, lighting, signing, audio systems and aides such as the turning wheel at pedestrian crossings, lifts, escalators and ramps
- 6.53 Disabled people travel more frequently by bus than others, so public transport plays a vital role in ensuring that they can participate in community life and avoid social exclusion.
- 6.54 Taxis also are used disproportionately by disabled people and there are many policy implications for poor vehicle standards, driver training, discrimination, cost and fare structures as well as rank design and positioning.

- 6.55 Disabled people travel more frequently by bus than others, so public transport plays a vital role in ensuring that they can participate in community life and avoid social exclusion. Measures to improve public transport reliability will benefit disabled people, but only if they are able to access the improved services. Public transport staff are often inadequately trained to assist customers with reduced mobility due to a variety of disabilities, and this can also improved to help disabled people benefit from service improvements. Overcrowding and disruption of services on public transport is a deterrent to travel for disabled people, so service improvements will also be a benefit in this respect.
- 6.56 Similarly, people with disabilities are less likely to drive and more likely to be dependent on public or community transport. However, they often are physically constrained in terms of their ability to use it. Passenger and service information is often hard to obtain or understand for people with sight, hearing or learning difficulties. Concern was specifically raised about deaf people not being able to hear audible signals that buses were stopping, and that more visual cues should be provided. Smartcards can sidestep the issues regarding communication for people with visual or hearing impairments, so their greater use should provide benefits.
- 6.57 Procurement processes which do not include and specify the needs of disabled people are discriminatory. The commitment to consultation and involvement in planning at community level in the WTLTP strategy will benefit disabled people.
- 6.58 Policies to improve connectivity especially making use of new technology have potential to benefit disabled people if they are properly designed.
- 6.59 Overall, the analysis suggests that the WTLTP strategy should provide a slight benefit for people with disabilities.

*Race Discrimination*

- 6.60 People from BAME groups often have increased safety concerns about using public transport, particularly at night, which deter them from travelling at certain times of the day. Yet BAME groups are more likely to be involved in shift work or making journeys to non mainstream venues at unsocial hours. Improvements to public transport included in the strategy will provide some benefit in this respect.

- 6.61 Front line public transport staff from BAME communities experience a disproportionate number of attacks, especially those working remotely such as taxi drivers. Racist behaviour by both some staff and other passengers remains a problem for passengers in BAME communities. For these reasons good maintenance including information systems, security features including CCTV and lighting are very important to give confidence especially for public transport users pedestrians and cyclists.
- 6.62 Access to employment, education and training are vitally important issues for BAME communities as a means of overcoming disadvantages in the job market. One of the reasons for this is greater reliance of BAME communities on public transport, and a consequent difficulty accessing more remote employment locations.
- 6.63 The ways that public transport is organised and operated frequently does not meet the needs of some BAME communities. These do not necessarily provide easy access to ethnic community shopping centres and other facilities, and focusing on particular peak periods and winding down services on specific religious holidays may not reflect the needs of an increasingly diverse population. There is little evidence that this will be addressed by the WTLTP strategy.
- 6.64 There are no specific initiatives identified in the WTLTP strategy to address the particular needs of BAME populations, which are typically not well understood by transport providers. Greater efforts to include members of BAME communities in consultations and customer care surveys (by both ensuring that they are selected to participate in the first place, and that sample numbers are sufficient for analysis) need to be taken.

### *Discrimination on grounds of sexuality or gender identity*

- 6.65 Members of the lesbian, gay, bi-sexual and trans-gender (LGBT) community typically have greater concerns about personal safety when using public transport due to fear of victimisation or harassment.
- 6.66 The maintenance of assets such as lighting, signing and information when there is disruption either due to weather or other emergencies is crucial for security especially at night when some LGBT people are more likely to visit leisure venues.
- 6.67 Proposals to improve strategic connectivity and the reliability of public transport services may increase informal surveillance and

deter acts of violence. However, there is little in the WTLTP strategy that is likely to specifically improve personal safety of LGBT people when travelling.

- 6.68 Overall, the WTLTP strategy is considered to have a neutral effect in terms of LGBT people.

*Age Discrimination*

- 6.69 Young people rely very much on public transport, although many have personal security concerns when using public transport and this is coupled with the fact that in terms of actual risk they are the age group which are most likely to be the victims of violence and/or assault.
- 6.70 Many older people are not able to drive because health conditions related to their age or find the cost of running a car prohibitive. Consequently, public transport often plays a vital role in enabling participation in community life for older people.
- 6.71 Planned improvements to strategic connectivity and the reliability of public transport will benefit people in both these younger and older age groups. The availability of concessionary fares has a crucial impact on the quality of life of older and younger people. Integrated ticketing is crucial for young people.
- 6.72 However, the WTLTP strategy does not specifically address the issue of the aging population in West Yorkshire. As noted in **Paragraph 5.2** above, the number of people over 60 in West Yorkshire is set to increase by 40% over the life of the plan, so current difficulties experienced by this age group will be exacerbated. For example, public transport staff are frequently not adequately trained to meet the needs of older customers with mobility problems. This lack of training is multifaceted and includes design, operational and customer care issues.
- 6.73 Advice on driving safely for young and elderly drivers is an important aspect of reducing casualties.
- 6.74 Overall, it is considered that the WTLTP strategy should provide a slight benefit in terms of reducing age inequalities in West Yorkshire.
- Religious Discrimination*
- 6.75 People from minority ethnic and faith communities have specific concerns about bullying and violence on public transport, particularly where an outward display of their belief is a key part of

their worship or culture (e.g. for some Muslims or Hassidic Jews). Typically, there is no clear responsibility for dealing with violence, racist behaviour and bullying on the links between transport systems. This is especially a problem in relation to journeys between schools and homes and in managing large numbers of schoolchildren at bus stops.

- 6.76 Religious groups have different needs (and at different times) in terms of access, demand for public transport and car parking. Policies need to be developed specifically to respond to these equitably. Examples are the effects of suspending bus lanes on Sundays, charging for car parking on Fridays and lack of travel planning for large festivals. Fare structures especially where based on the hub system can discriminate against people who need to make orbital journeys to religious venues.
- 6.77 Some of the posters on transport vehicles and venues offend standards of decency of some religious groups.
- 6.78 There is a lack of transport planning for major religious festivals and at Christmas especially non-Christians may be left without transport while still needing to work or make other vital journeys.
- 6.79 Some religious groups tend to have larger families and fare structures which restrict the number of accompanying children disadvantage such communities.
- 6.80 On the basis of this analysis, it is concluded that the WTLTP strategy is likely to have a neutral effect on different religious groups. There are few proposals of the strategy that address existing inequalities, but also no specific measures that will exacerbate these.

*Social Deprivation/Exclusion*

- 6.81 The key issue here is the effect on the economy and employment of the WTLTP, which is discussed in more detail below. To the extent that the WTLTP will have a positive effect on the number of jobs and the general functioning of the economy. On balance, this is likely to work towards reducing deprivation and exclusion, although the effect of this is likely to be slight. The early prioritisation of employment especially in the context of linking new employment to sustainable travel will increase employment opportunities for those currently unemployed.

- 6.82 Some areas of West Yorkshire where car ownership and incomes are low are relatively poorly served by public transport and the emphasis on priority routes and asset management could exacerbate this problem. The increased emphasis on walking and cycling similarly will benefit people on low incomes.
- 6.83 However, the emphasis on sustainable travel especially decentralisation and community level transport planning will benefit those on low incomes. Fare structures based on travel cards also can disadvantage those who cannot afford advance purchase of weekly or season tickets.
- 6.84 Overall, this analysis suggests that the WTLTP strategy will provide a slight benefit in terms of reducing deprivation.

**Effects on the Economy**

*Impacts on Key Economic Indicators*

- 6.85 The outputs from the UDM, shown in **Table 6.4**, indicate that the implementation of the WTLTP strategy would have the following effects in terms of employment in West Yorkshire:

**TABLE 6.4 PREDICTED CHANGES IN EMPLOYMENT IN WEST YORKSHIRE (COMPARED WITH DO-MINIMUM) 2025**

District	Jobs
Leeds	516,000 (+6.8%)
Bradford	263, 000 (+0.8%)
Calderdale	103,000 (+0.1%)
Kirklees	194,000 (+0.3%)
Wakefield	185,000 (+0.2%)
<b>West Yorkshire</b>	<b>1,260,000 (+2.9%)</b>

- 6.86 Assuming a current GVA per job of £44,400, and a continuation of current trends in growth in GVA per job of 3.8% p.a.<sup>15</sup>, it is

<sup>15</sup> SQW Consulting (2010) - Leeds City Region Statement for Local Economic Assessments (Draft) - Table 2, Page 5, Leeds City Region, July 2010.

estimated that in terms of impact on local GVA/GDP in West Yorkshire, these additional jobs would provide the following increases in GVA:

**TABLE 6.5 ESTIMATED INCREASES IN GVA DUE TO LTP STRATEGY (COMPARED WITH DO-MINIMUM) 2025**

District	Increase in GVA	
	£million)	%
Leeds	£1,452	1.5%
Bradford	£55.7	0.1%
Calderdale	£13.3	0.0%
Kirklees	£113.4	0.1%
Wakefield	£23.6	0.0%
<b>West Yorkshire</b>	<b>£1,658</b>	<b>1.7%</b>

6.87 On this basis, it may be concluded that in terms of productivity and employment, implementation of the WTLTP strategy would provide a slight beneficial effect, particularly in the City of Leeds.

*Economic Policy*

6.88 The WTLTP strategy includes a number of measures to reduce congestion on the highway network and on public transport, to reduce delays and to improve the reliability of services and journey times. As such this will help support productivity and competitiveness of businesses in West Yorkshire, and is in broad alignment with economic development policies for the area. The slight beneficial impact in terms of employment and GVA indicated above underlines this.

*Localised Economic Effects*

6.89 In practical terms, the measures to reduce congestion on the highway network and on public transport, to reduce delays and to improve the reliability of services and journey times included in the WTLTP strategy will effect business at the local level in terms of specific changes in access to factors of production. This would include for example, better access to markets and sources of



materials, more reliability in terms of “just in time” deliveries and distribution methods, and to a wider catchment for labour supply. The measures described in the WTLTP strategy should provide a slight beneficial effect in these respects.

- 6.90 In broad terms, the outputs from the UDM indicate that Leeds should benefit most in this respect. However, on the basis of the information available presently, it is not possible to identify what specific benefits may be provided.

#### **Cumulative Effects**

- 6.91 From the analysis undertaken for the ISA, no incidences of when effects not considered significant in themselves would occur at the same time or place with other effects, and combine to produce cumulative significant effects. This applies equally to adverse and positive effects.



## 7 Consideration of Alternative Strategies

### Alternatives in the Context of the Transport Plan

#### *Considering Alternatives in ISA*

- 7.1 In conducting the ISA, we have taken into account the requirements of Regulation 12(2) of the Environmental Assessment of Plans and Programmes Regulations. This requires that an Environmental Report should *‘identify, describe and evaluate the likely significant effects on the environment of implementing the plan or programme being assessed’, including ‘reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme’.*
- 7.2 However, the Government’s guidance on conducting SEA<sup>16</sup> is clear *‘that it is not the purpose of the SEA to decide the alternative to be chosen for the plan or programme. This is the role of the decision-makers who have to make choices on the plan or programme to be adopted. The SEA simply provides information on the relative environmental performance of alternatives, and can make the decision-making process more transparent’.*

### Alternatives Considered in the ISA for the WTLTP

#### Strategy Options and Analysis

- 7.3 As part of the ISA, LTP high level alternatives have been considered and assessed. The draft LTP strategy is based on the *‘OurJourney’* concept of partnership working between authorities, the private sector, stakeholders, communities and individuals, to deliver a transport system that meets people’s needs and wants.
- 7.4 In developing the preferred strategy, the 28 strategic approaches identified for the WTLTP were packaged into three options as follows:
- I Option 1:** ‘Focus on maintaining and managing assets’;
  - I Option 2:** ‘Focus on tackling congestion’; and
  - I Option 3:** ‘Focus on carbon reduction’.

<sup>16</sup> ODPM et al (2005) - A Practical Guide to the Strategic Environmental Assessment Directive - September 2005, paragraph 5.B.7, p.31.

## Integrated Sustainability Assessment

The strategies that comprise these options are identified in **Table 7.1** on the following pages.

TABLE 7.1 STRATEGY OPTIONS FOR ASSESSMENT (AS AT 5<sup>TH</sup> NOVEMBER 2010)

Option 1: Focus on Maintaining and Managing Assets	Option 2: Focus on Tackling Congestion	Option 3: Focus on Carbon Reduction
<b>Strategies specific to each option:</b>		
1. Prioritise asset management and maintenance standards according to a <b>hierarchy of routes and users</b> that best supports the Plan	1. Prioritise asset management and maintenance standards according to a <b>hierarchy of routes and users</b> that best supports the Plan	5. Minimise the <b>carbon footprint and emissions</b> of assets and associated management and maintenance practices
2. Ensure that all assets are <b>maintained and managed</b> to a standard that is <b>suitable and sufficient</b> for their <b>desired use</b>	4. Use new <b>network management</b> practices to <b>minimise congestion and ensure efficient recovery from disruption</b>	7. Strengthen <b>demand management and enforcement</b> to gain maximum benefit from measures to enable more sustainable choices
3. Adapt assets to be <b>resilient to predicted weather effects</b> caused by climate change over the long term	8. Develop a <b>strategic model for travel behaviour change</b> to inform marketing, information, education and support activities	9. Develop and provide <b>tailored, interactive, readily available information and support</b> that encourages and incentivises more sustainable travel choices on a regular basis
4. Use new <b>network management</b> practices to <b>minimise congestion and ensure efficient recovery from disruption</b>	9. Develop and provide <b>tailored, interactive, readily available information and support</b> that encourages and incentivises more sustainable travel choices on a regular basis	11. Work with partners to <b>reduce length and frequency of trips</b> by supporting measures to provide access to services, employment and goods online and in local communities

## Integrated Sustainability Assessment

Option 1: Focus on Maintaining and Managing Assets	Option 2: Focus on Tackling Congestion	Option 3: Focus on Carbon Reduction
5. Minimise the <b>carbon footprint and emissions</b> of assets and associated management and maintenance practices	10. Provide <b>tailored education and training</b> to support <b>habitual behaviour change</b> to more sustainable travel modes	12. Work with health sector and other partners to <b>promote the benefits of active travel</b> and support greater participation in walking and cycling
6. Work with partners to ensure a <b>joined-up approach to management and maintenance of assets</b>	11. Work with partners to <b>reduce length and frequency of trips</b> by supporting measures to provide access to services, employment and goods online and in local communities	13. Define and develop a <b>core, high quality, financially sustainable network of transport services that will provide attractive alternatives to car travel</b>
14. Improve <b>interchange and integration</b> through a range of <b>transport hubs</b>	12. Work with health sector and other partners to <b>promote the benefits of active travel</b> and support greater participation in walking and cycling	21. Work with <b>partners</b> to encourage and support the <b>efficient and sustainable movement of goods and services distribution</b>
	13. Define and develop a <b>core, high quality, financially sustainable network of transport services that will provide attractive alternatives to car travel</b>	22. Define, develop and manage a network of facilities to encourage greater use of <b>cycling and walking</b>
	14. Improve <b>interchange and integration</b> through a range of <b>transport hubs</b>	24. Develop <b>additional capacity</b> to address congestion and overcrowding at key locations in a <b>financially and environmentally sustainable way</b>

Option 1: Focus on Maintaining and Managing Assets	Option 2: Focus on Tackling Congestion	Option 3: Focus on Carbon Reduction
	15. Develop and use <b>integrated ticketing and smartcard technology</b> to facilitate <b>seamless travel across modes</b>	25. Invest in <b>technology and infrastructure</b> to facilitate sustainable travel choices, to improve the <b>efficiency and quality</b> of the transport network for users, and to provide new connections to key locations and activities
	16. Introduce a new <b>framework for local bus services</b> as part of an <b>integrated transport system</b>	26. Support the development of infrastructure for <b>new low carbon technologies</b>
	17. Develop a new model for transport planning at a <b>community level to enhance local accessibility</b>	
	21. Work with <b>partners</b> to encourage and support the <b>efficient and sustainable movement of goods and services</b>	
	22. Define, develop and manage a network of facilities to encourage greater use of <b>cycling and walking</b>	
	23. <b>Improve strategic connectivity</b> by implementing the City Region transport priorities	

## Integrated Sustainability Assessment

Option 1: Focus on Maintaining and Managing Assets	Option 2: Focus on Tackling Congestion	Option 3: Focus on Carbon Reduction
	24. Develop <b>additional capacity</b> to address congestion and overcrowding at key locations in a <b>financially and environmentally sustainable way</b>	
	25. Invest in <b>technology and infrastructure</b> to facilitate sustainable travel choices, to improve the <b>efficiency and quality</b> of the transport network for users, and to provide new connections to key locations and activities	
<b>Cross-cutting Strategies:</b>		
18. Minimise negative impacts of transport on the natural environment (including emissions, air quality, noise, biodiversity and heritage)	18. Minimise negative impacts of transport on the natural environment (including emissions, air quality, noise, biodiversity and heritage)	18. Minimise negative impacts of transport on the natural environment (including emissions, air quality, noise, biodiversity and heritage)
19. Minimise transport casualties and improve safety and security on the network	19. Minimise transport casualties and improve safety and security on the network	19. Minimise transport casualties and improve safety and security on the network
20. Make it easier for people with disabilities and from a range of backgrounds and lifestyles to access transport	20. Make it easier for people with disabilities and from a range of backgrounds and lifestyles to access transport	20. Make it easier for people with disabilities and from a range of backgrounds and lifestyles to access transport

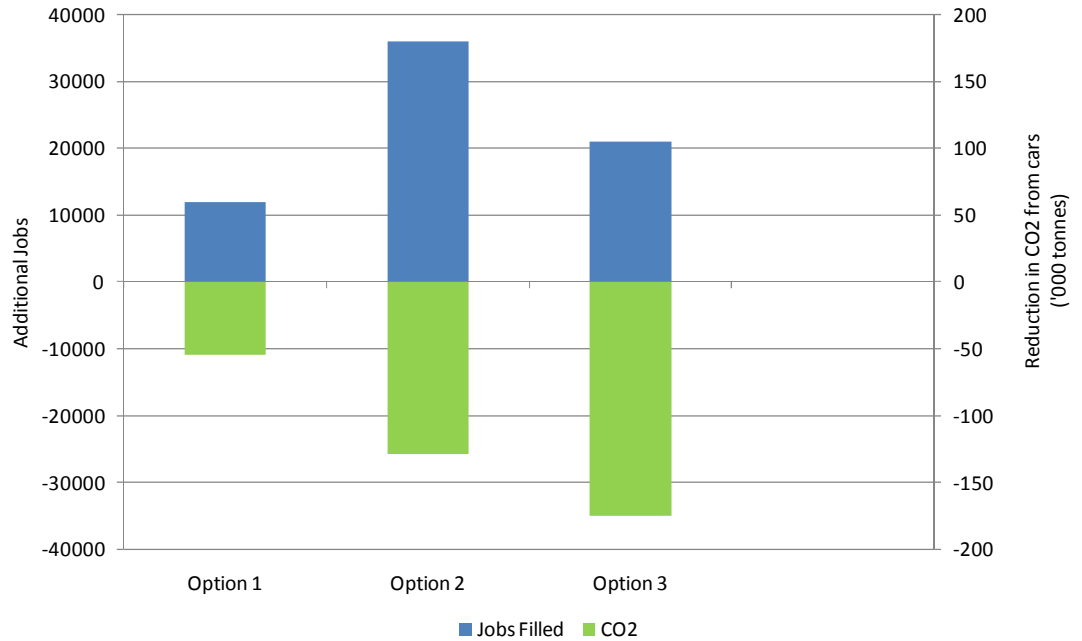


Option 1: Focus on Maintaining and Managing Assets	Option 2: Focus on Tackling Congestion	Option 3: Focus on Carbon Reduction
<p>27. Work with Planning Authorities to ensure that development is concentrated and in sustainable, accessible and safe locations and delivered with a layout that enables sustainable travel choices</p>	<p>27. Work with Planning Authorities to ensure that development is concentrated and in sustainable, accessible and safe locations and delivered with a layout that enables sustainable travel choices</p>	<p>27. Work with Planning Authorities to ensure that development is concentrated and in sustainable, accessible and safe locations and delivered with a layout that enables sustainable travel choices</p>
<p>28. Work with partners to identify alternative funding and delivery mechanisms for delivering enhancements</p>	<p>28. Work with partners to identify alternative funding and delivery mechanisms for delivering enhancements</p>	<p>28. Work with partners to identify alternative funding and delivery mechanisms for delivering enhancements</p>

### Strategy Outcomes

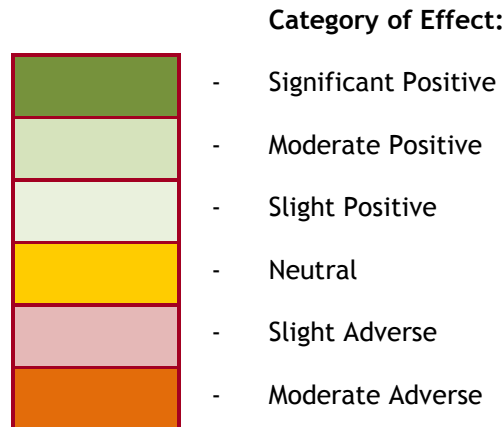
- 7.5 The strategies were tested using Steer Davies Gleave’s “Urban Dynamic Model (UDM). This simulates how transport, population, employment and land use interact and evolve over periods of years. By analysing patterns of connectivity, the model shows how transport investment can improve the ability of employers to recruit and their access to customers and suppliers. It then shows how employers and businesses are likely to respond, expanding their operations and creating more jobs. It also indicates the changes in CO<sub>2</sub> emissions from transport that occur as a result of this.
- 7.6 The UDM has indicated that better integrating transport with land-use (i.e. focusing development in public transport corridors) may generate significant numbers of additional jobs while holding CO<sub>2</sub> emissions from transport steady. Significant improvements to public transport and active travel facilities may also generate jobs, and can help reduce CO<sub>2</sub> emissions as well. Travel behaviour change (i.e. by encouraging mode shift and reduced trip rates) releases capacity on the network, which can then generate new jobs. However this also generates new trips, and the transport CO<sub>2</sub> emissions appear to remain the same, or to fall. Targeted highway capacity improvements may be very effective at generating jobs, but are likely also to generate additional CO<sub>2</sub>. Area-wide improvements are likely to be much less effective in supporting economic development because they are not focused on congestion problems. A summary of the modelled effects of the strategy options are illustrated in **Figure 7.1** following:

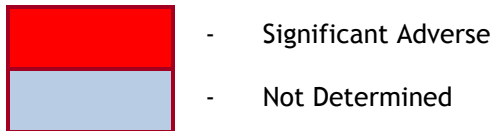
**FIGURE 7.1 ABSOLUTE DIFFERENCES IN JOBS AND CO<sub>2</sub> IN 2016 COMPARED TO THE DO-MINIMUM**



7.7 The perceived impacts and issues arising from these options and their fit with the ISA objectives, as set out in the ISA Scoping Report, has been examined on the basis of the information that is presently available in terms of the baseline conditions and the likely outcomes of the strategies, informed by the UDM work that has been undertaken to date. These are shown within **Table 7.2** on the following pages.

7.8 The outcomes of this assessment have been reported using a common seven-point scale consistent with the approach recommended by the Department for Transport’s Transport Analysis Guidance (webTAG). The colour coding of the table is as follows:





- 7.9 It should be noted that in some cases there is little to differentiate these options presently in terms of the likely effects, for example, on the different equalities target groups, and little evidence to base the likely outcomes of the strategies in this respect.
- 7.10 The broad conclusions that may be drawn from the analysis undertaken to date are as follows:
- In terms of environmental effects, there is little to distinguish the outcomes from Options 1 and 3. Option 2 would have marginally greater adverse impacts, principally relating to the direct effects of providing more infrastructure. However, it should be noted that in terms of specific effects, Option 2 would be more likely to deliver better local air quality, while Option 3 will, perhaps unsurprisingly, deliver better outcomes in terms of carbon emission reductions.
  - Regarding health effects, there is again little to choose between the options, although Option 1 is likely to perform less well in this respect.
  - In relation to economic effects, here again, it is considered that Option 1 will perform less well than the other options.
  - On equalities issues, few of the key concerns for equalities target groups are actually addressed by the WTLTP strategy. Some benefits have been identified, principally associated with improvements to public transport and encouraging active travel. However, overall there is little to differentiate the options considered in this respect.

TABLE 7.2 ASSESSMENT OF STRATEGY OPTIONS

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
Environmental effects					
EN1	Have no significant effect change in population forecasts (e.g. ±5%) over the life of the plan.	slight adverse	slight adverse	Neutral	Subject to revision of modelling outputs.
EN2	Reduce carbon dioxide (CO2) emissions from transport in line with national targets.	slight positive	slight positive	moderate positive	Efficiency in 2 results in induced demand. Modelling shows reducing trip rates and more sustainable travel will have the largest impact on CO <sub>2</sub> .

Integrated Sustainability Assessment

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EN3	Adapt to the unavoidable consequences of climate change, for example by reducing the extent of areas of flood risk.	moderate positive	slight positive	slight positive	Dependant on the extent the maintenance programme uses the latest materials and adaptation plan is implemented.
EN4	Maintain compliance with National Air Quality Standards maintained in all areas where these are predicted to be met during the life of the plan, and secure improvements in air quality generally in West Yorkshire associated with the implementation of specific proposals of the plan, so the number of AQMAs is reduced.	Neutral	moderate positive	slight positive	2 offers possibility of a better spread of traffic, reducing pollutants within AQMAs. 3 highlights roll out of low carbon technologies, though an LTP has little control, given the need for fiscal incentives.

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EN5	Reduce existing levels of annoyance from noise caused by transport.	slight positive	slight positive	moderate positive	1 can ensure maintenance reduces vibration, whilst 3 may have an impact on reducing traffic volumes.
EN6	Lead to no loss of or damage to designated wildlife/biodiversity sites, other priority habitats and protected species attributable to transport, and to secure improvements to habitats associated with the implementation of specific proposals of the plan.	Neutral	slight adverse	slight adverse	2 may result in induced demand and increasing capacity, whilst 3's inclusion of 'infrastructure' could be a new tram or bus-based system.

## Integrated Sustainability Assessment

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EN7	Lead to no loss of or damage to areas or features designed designated for the protection of cultural heritage, and to secure improvements in townscape/landscape quality associated with the implementation of specific proposals of the plan.	Neutral	slight adverse	slight adverse	2 & 3 mention additional capacity and infrastructure, which, if not suitably sited, could have a negative effect.
EN8	Lead to no loss or damage to those elements which contribute to the significance of historic assets, and secure improvements in presentation and interpretation of heritage resources associated with the implementation of specific proposals of the plan.	Neutral	slight adverse	slight adverse	2 & 3 mention additional capacity and infrastructure, which, if not suitably sited, could have a negative effect.
EN9	Minimise the use of resources in the delivery of transport infrastructure and operations.	Neutral	Neutral	neutral	Unlikely to have positive or negative effects.



No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EN10	Lead to no additional contamination of soils, or pollution incidents due to disturbance of contamination attributable to transport, and secure improvements to land quality associated with the implementation of specific proposals of the plan.	slight positive	slight positive	slight positive	All options provide opportunities to 'clean up' sites
EN11	Lead to no additional pollution of surface or groundwater resources attributable to transport, and secure improvements to water quality associated with the implementation of specific proposals of the plan.	slight positive	slight positive	slight positive	All options provide opportunities to improve pollution control.

## Integrated Sustainability Assessment

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
Health effects					
H1	Meet LTP targets and trajectories for reduction in the numbers of people killed or seriously injured in transport accidents.	slight positive	slight positive	slight positive	
H2	Reduce deaths or serious illness attributable to transport.	Neutral	slight positive	slight positive	Linked to a combination of increases in active travel and reductions in environmental pollution.
H3	Help improve the overall level of health among the population of West Yorkshire through greater participation in active travel (e.g. walking and cycling).	slight positive	slight positive	slight positive	Increases in active travel may not result in direct health benefits to a degree to enable a distinction between options to be made.

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
H4	Improve the overall levels of accessibility to health facilities and facilities/assets that promote positive health.	slight positive	slight positive	slight positive	See above.
Economic effects					
EC1	Make a positive contribution to enhanced productivity and competitiveness among all businesses in the plan area.	slight positive	slight positive	slight positive	Modelling shows the impact of re-allocation of development land to areas with good accessibility by public transport (especially Leeds and Wakefield) has the biggest positive effect on jobs, but this is a cross-cutting strategic approach.

## Integrated Sustainability Assessment

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EC2	Help reduce in levels of unemployment, particularly in areas of the region with high levels of unemployment / low socio-economic status / poor accessibility to good quality employment opportunities.	slight positive	moderate positive	moderate positive	See above.
EC3	Be consistent with policies and proposals of economic development strategies in the plan area.	not determined	not determined	not determined	See above.
EC4	Maximise positive effects on local economic markets through transport policies and proposals.	slight positive	moderate positive	moderate positive	See above and note that 2 & 3, with measures geared towards sustainable travel release network capacity.
Equalities Effects					

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EQ1:	Reduce reported incidences of gender discrimination and/or gender-based crime on public transport.	Neutral	Neutral	Neutral	Benefits from improvements to public transport. Emphasis on economic growth may disadvantage women.
EQ2:	Reduce reported incidences of disability discrimination.	Slight positive	Slight positive	Slight positive	Benefits from improvements to public transport.
EQ3:	Increase the numbers of disabled people who are able to access services.	Slight positive	Slight positive	Slight positive	Benefits from improvements to public transport.
EQ4:	Reduce in reported incidences of race discrimination and/or racially-motivated crime on public transport.	Neutral	Neutral	Neutral	Some benefits from improvements to public transport, but generally not addressed.

## Integrated Sustainability Assessment

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EQ5:	Increase the numbers people from of BAME groups able to access services.	Neutral	Neutral	Neutral	Some benefits from improvements to public transport, but generally not addressed.
EQ6:	Reduce reported incidences of discrimination and/or crime on public transport related to victims' sexuality.	Neutral	Neutral	Neutral	Some benefits from improvements to public transport, but generally not addressed.
EQ7:	Reduce reported incidences of age-related discrimination.	Slight positive	Slight positive	Slight positive	Benefits from improvements to public transport.
EQ8:	Increase the numbers of age groups that are able to access services.	Slight positive	Slight positive	Slight positive	Benefits from improvements to public transport.

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
EQ9:	Reduce reported incidences of religious discrimination and/or religiously-motivated crime on public transport.	Neutral	Neutral	Neutral	Some benefits from improvements to public transport, but generally not addressed.
EQ10:	Increase the numbers of people from excluded groups that are able to access services.	Slight positive	Slight positive	Slight positive	Benefits from improvements to public transport and active travel.
EQ11	Increase the numbers of people on low incomes that are better able to access jobs and services.	Slight positive	Slight positive	Slight positive	Key issue is emphasis on economy. Benefits from improvements to public transport and active travel.

## Integrated Sustainability Assessment

No.	Objective	Options			Comments
		Option 1 - Maintaining and managing assets	Option 2 - tackling congestion	Option 3 - Carbon Reduction	
Cumulative effects					
C1	Ensure no significant adverse effects caused by the interaction of environmental effects, where these effects may in themselves not be significant.	Neutral	Neutral	Neutral	No accumulation of effects considered to be significant.
C2	Maximise the cumulative benefits associated with the implementation of specific proposals of the plan.	Neutral	Neutral	Neutral	No accumulation of effects considered to be significant.



## 8 Mitigation

### The Role of Mitigation in ISA

- 8.1 One of the key purposes of the ISA process is to ensure environmental protection, together with measures to improve public health, promote economic prosperity and ensure equality of opportunity, are integral parts of the plan making process. A principal way of achieving this is by incorporating mitigation measures into the policies and proposals of the plan as it develops. For example, The SEA Regulations specify an Environmental Report must contain a description of:
- “The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.”*
- 8.2 The key characteristics of mitigation within the context of ISA are that proactive avoidance of adverse effects and enhancement of beneficial effects should be considered. Mitigation is one of the key outputs of the ISA and has been considered throughout the development of the WTLTP strategy and Implementation Plans.
- 8.3 Mitigation can take a wide range of forms including:
- Changes to the Plan, such as adding, deleting or refining measures;
  - Completely new alternatives;
  - Technical measures required for the implementation stage, e.g. buffer zones, application of design principles;
  - Requirements for project environmental impact assessments for certain projects; and
  - proposals for changing other plans and programmes.
- 8.4 In this case, as indicated earlier, the SEA has concluded that it is unlikely that there will be any significant adverse effects caused by the measures proposed in the WTLTP. Therefore, within the meaning of the SEA Regulations, no further mitigation is required to be identified.
- 8.5 Nevertheless, in this chapter of the Assessment Report, the way in which mitigation has been integrated into the development of

measures identified in the WTLTP is discussed, together with what opportunities may exist to further enhance the positive effects of the Plan.

### Mitigation in the Context of the Transport Plan

- 8.6 Mitigating environmental effects through a plan essentially may be done in three main ways:
- **Avoidance or prevention:** This involves modifying the elements of the strategy presented in the plan to avoid particular environmental effects. Many aspects of the strategy presented in the Transport Plan have been specifically developed on this basis.
  - **Reduction:** Ways of reducing the extent or magnitude of environmental effects, through management measures; and
  - **Offsetting or compensation:** financial compensation for the loss of, or damage to, environmental resources, although the scope for is limited in the context of a Transport Plan.
- 8.7 The costs of additional mitigation and any associated monitoring of the mitigation measures identified in the course of the ISA will be incorporated in the strategy costs.

### Environmental Mitigation

#### *Greenhouse Gas Emissions*

- 8.8 The WTLTP recognises that there is a need to dramatically reduce greenhouse emissions in order to reduce the effects of global warming on the weather, the economy and health. It is also noted that West Yorkshire's transport system is heavily dependent on carbon-based fuels, and this dependency is expected to grow as the population grows and becomes more dispersed.
- 8.9 The WTLTP supports development of infrastructure for new lower-carbon technologies and renewable fuels throughout the freight and public transport sectors. Where such technology is already being pioneered, the WTLTP encourages sharing of best practise and access to facilities.
- 8.10 Improving the operational efficiencies of the transport network and developing lower-carbon maintenance practices and initiatives will aim to minimise carbon emissions from transport assets in West Yorkshire and associated management and maintenance practices. Specific initiatives would include re-phasing of traffic lights and

greater use of integrated traffic control systems to smooth traffic flows and speed up the response to incidents on the network. In relation to operational and maintenance practices, greater use of renewable energy and more energy efficient fixtures such as LED lighting. Changing processes to lay road surfaces at lower temperatures also will cut carbon and speed-up road works.

- 8.11 The WTLTP also proposes to strengthen demand management and enforcement to gain maximum benefit from measures to enable more sustainable choices. By encouraging people in West Yorkshire to use their cars less, and use lower-carbon modes to meet their travel needs, the WTLTP aims to ensure increased congestion and carbon emissions do not constrain economic growth in the area.
- 8.12 A specific proposal of the plan is to adapt assets to be resilient to predicted weather effects caused by climate change over the long term. This will involve steps to ensure that the risks posed by the effects of climate change are taken into account through a framework that captures the level and type of risk and proposes measures for ensuring resilience. Measures to support the management of such identified risks will include alteration of existing maintenance regimes to focus on poorly maintained storm drains, identified as a source of surface flooding.

*Local Air Quality*

- 8.13 The WTLTP seeks to avoid many of the adverse impacts of travel and transport on the environment through encouraging greater use of public transport, walking and cycling and reducing the need to travel.
- 8.14 Urban Traffic Management Control Systems, eco-driving programmes and support for low emission vehicle technologies and infrastructure that will reduce reliance on fossil fuels are key proposals of the WTLTP. This recognises the significant adverse impacts of poor air quality on health in West Yorkshire and seeks to ensure reductions in emissions of local air pollutants lead to improvements in air quality.
- 8.15 Improving air quality within designated Air Quality Management Areas (AQMAs) is a particular focus of the WTLTP, together with the development of overarching Low Emission Strategies and consideration of the use of Low Emission Zones.

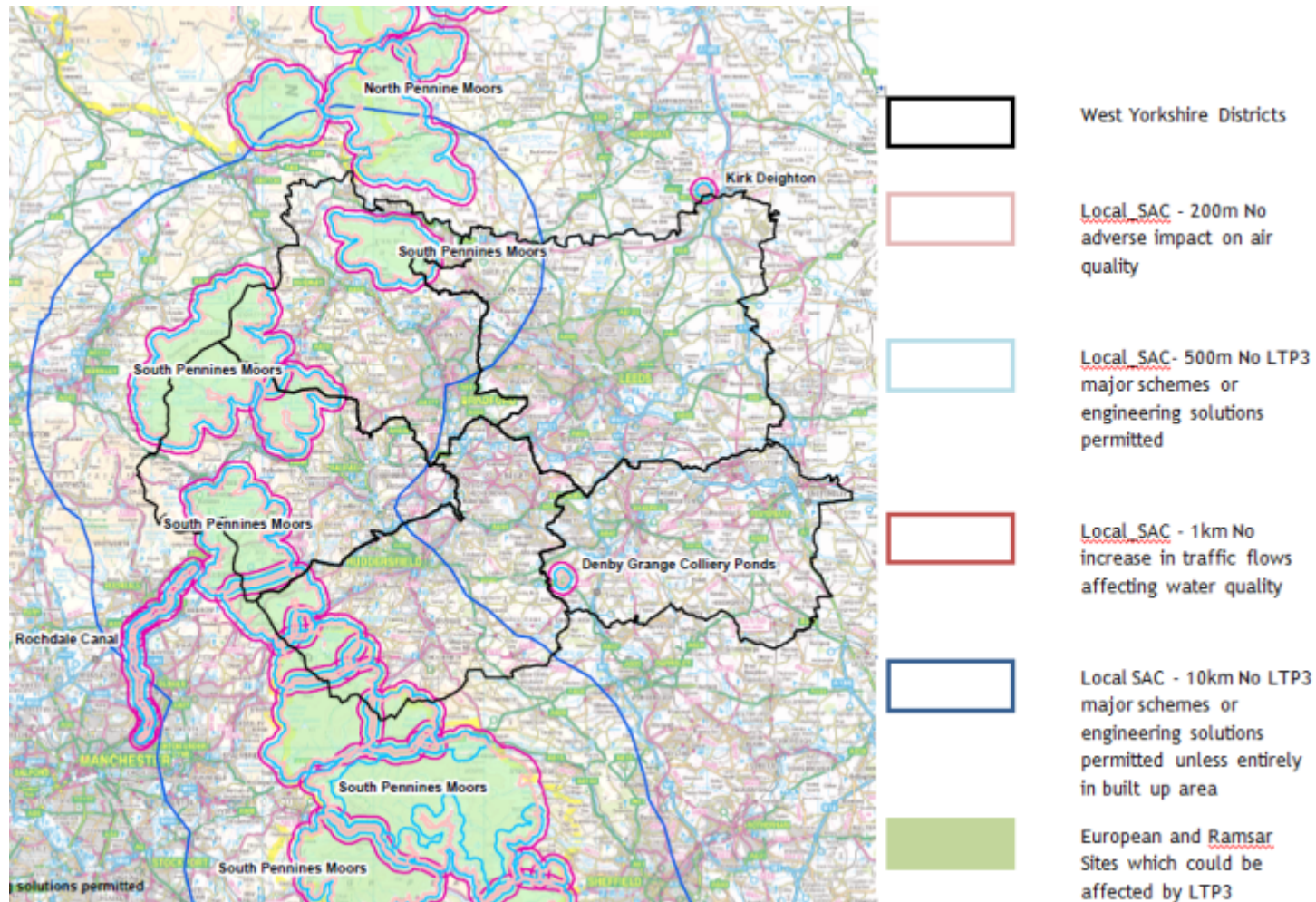
*Noise*

- 8.16 Routing strategies and priority locations for noise mitigation action identified through the Implementation Plans will be informed by the hierarchy of routes and users. In this way, the WTLTP will seek to reduce the levels of disturbance, loss of sleep and stress for residents close to busy transport corridors.

*Biodiversity and Heritage*

- 8.17 Where new infrastructure is required, the WTLTP will seeks to ensure that it is suitably sited; ensuring loss of or damage to habitats and protected species is minimised and that historical assets and cultural heritage are preserved.
- 8.18 In particular in respect of the European sites designated for protection, as identified in the Habitats Regulations, the ISA has identified ‘buffer zones’ within West Yorkshire around the boundaries of these. If any new infrastructure proposals are brought forward through the first set of Implementation Plans, or subsequent revisions of these, which lie within on adjacent to the ‘buffer zones’, then a thorough Appropriate Assessment under the terms of the Habitats Regulations will be prepared and submitted to Natural England for consideration. The buffer zones are:
- 500m from the boundary of Denby Grange Colliery Pits SAC and Kirk Deighton SAC.
  - 10km from the boundary of the South Pennine Moors SAC/SPAs, unless the proposal is entirely situated within the built up areas.
  - The road network situated within 200m of the boundaries of all the European sites, in respect of proposals that may lead to increased local air pollutant emissions, i.e. where:
    - road alignment changes by 5 metres or more;
    - there will be an increase in Annual Average Daily Traffic Flow (AADT) of more than 1,000 vehicles;
    - Heavy Goods Vehicle (HGV) flows change by 200 AADT or more;
    - Daily average speed changes by 10 km/hr or more; or
    - Peak hour speed changes by 20 km/hr or more.
  - The road network located within 1km of a European site (whose surface water run-off discharges to waterbodies situated within it) identified as being water dependent.
- 8.19 These buffer zones are illustrated in **Figure 7.1** following.

FIGURE 8.1 BUFFER ZONES FOR PROTECTION OF EUROPEAN SITES





- 8.20 Specific restrictions on the development of WTLTP proposals should also be imposed as follows:
- Any proposal that will be located within 500m of Denby Grange Colliery Pits SAC and Kirk Deighton SAC would only be taken forward where it has been demonstrated through an Appropriate Assessment that the development site is not of significant value to great crested newt.
  - Any WTLTP related-development within 10km of the South Pennine Moors SAC/SPAs unless it is entirely situated within the built up areas would only be approved after a breeding bird survey has been completed and it has been demonstrated through an Appropriate Assessment that the development site is not of significant value to SPA species.
- 8.21 Where possible, it aims to secure improvements (e.g. planting, landscaping and other mitigation measures) to these features which in turn will result in additional benefits. For example, planting trees and shrubs as part of a traffic or a bus corridor scheme to increase green space; contributing to an improved environment for cycling and walking, which in turn will reduce car use, improve health, reduce emissions and noise levels and provide habitats for wildlife. Tree planting will also improve general resilience to unavoidable levels of climate change, by reducing rainfall run-off rates, provide shade and lower temperatures in heat wave conditions, reduce wind speeds and turbulence.

#### Measures to Mitigate Health Effects

- 8.22 In terms of direct deaths and injuries attributable to transport, the WTLTP proposes continuing work on education, training and publicity about safer use of transport systems, combined with essential life-skills training connecting with other local priorities within communities, for example, health and education. This also has wider health benefits through, for example, encouraging increased walking and cycling (see also **Paragraph 8.24**).
- 8.23 The mitigation measures described above to help improve air quality and the levels of disturbance from transport noise also will help mitigate the potential adverse impacts on health. People with pulmonary and respiratory diseases are particularly at risk from adverse health effects associated with poor air quality, and

excessive noise may lead to sleep disturbance which exacerbates stress with a consequent adverse effect on health generally.

- 8.24 The WTLTP indicates that the local authorities in West Yorkshire will work with health sector and other partners to promote the benefits of active travel and support greater participation in walking and cycling. This will involve one-to-one advice and support delivered by a range of partners including GPs, sports and leisure clubs and private health advisors. A joined-up approach will ensure consistent messages and techniques for encouraging regular participation in active travel.

#### Tackling Inequalities

- 8.25 Providing a core public transport system that provides viable alternatives to private car use through the WTLTP will be based on an approach to local accessibility needs and transport planning at a community level. The local authorities in West Yorkshire will work with communities to determine how best to meet local accessibility, including by community transport and other community-based schemes (such as social car schemes) as well as provision for walking and cycling, including changes in streetscape, green infrastructure, footpaths and bridleways. This may require investment in Information Technology to provide booking and scheduling systems for buses, taxis and car clubs.
- 8.26 The WTLTP also proposes to make it easier for people with disabilities and from a range of backgrounds and lifestyles to access transport services. This will help ensure that people with disabilities and differing levels of physical ability and lifestyles are accommodated on the transport network, and (as far as is reasonably practicable) that the core network and supporting services provided are inclusive, acceptable and affordable to all. Specific measures will include:
- Providing a consistent standard at pavement edges and crossings;
  - Improving the streetscape by minimising barriers to unrestricted pedestrian movement;
  - Ensuring all buses are low floor and train stations to have step free access, and
  - Making the affordable improvements identified in Public Rights of Way Improvement Plans.

- 8.27 Dialogue with local communities to determine their accessibility needs, and to help ensure that the times and locations that public transport services operate better meet their requirements.
- 8.28 Measures aimed at reducing transport inequalities relating to specific target groups might include:
- To combat **gender inequalities**, accessibility software and GIS could be used to identify local areas of low car ownership and prioritise maintenance on key walking routes in these areas. Within asset management and maintenance policy for minimising congestion prioritise public transport routes such as bus lanes. There also is a need for targeting particular diversity groups such as for road safety work or behavioural change within the context of broader programmes. Care needs to be taken to consider the design of public transport and the built environment to facilitate the use of buggies and childcare. There should also be better planning for journeys and fare structures which do not fit the ‘hub’ system.
  - In relation to **disabled people**, minimising congestion and recovery from disruption will benefit disabled people if public transport is given priority within the context of the hierarchy of routes. Training in procurement and disability awareness in relation to asset management and maintenance policy can help to avoid unintentional discrimination. Careful consideration at the planning stage especially working with partners will ensure that systems are designed and future proofed for disabled travellers. Training all staff rather than just front facing staff in customer care and disability awareness is important. This should include strategies to help disabled travellers when things go wrong and inclusive information systems. Proactive and accessible complaints systems are also important. Travel training is important in giving disabled people confidence to travel. Similarly advice on motoring and vehicle choice is an enabling factor. A very good way of addressing discrimination is to employ more disabled staff within transport and associated industries.
  - In terms of effects on **BAME groups**, greater attention should be given to maintenance of infrastructure lighting and such as bus shelters, lighting outside regular working especially in areas where there is a high incidence of BME residents - the use of GIS to



identify such areas superimposed with crime data can serve to inform schedules. The use of GIS for analysis of links or lack of links between residential area and employment opportunities can help address discrimination in access opportunities, Similarly good collection and analysis of road casualty data can identify groups most at risk including BAME children. Partnership working with the police and British Transport Police as well as community safety partnerships is important in tackling both crime and perceptions of crime. Staff training in customer care and cultural issues is important given the diversity of the West Yorkshire population structure.

- For the **LGBT community**, there should be better liaison with the British Transport and other partners such as Clubs can provide better safety. Staff training is also essential to reduce discrimination. Encouraging and monitoring complaints can identify problems.
- Regarding **age inequalities**, considering local pedestrian needs especially elderly people in designing maintenance schedules can overcome neglect. Working with neighbourhood groups to identify problems - via customer feedback and neighbourhood reporting can lead to improved maintenance schedules. Road safety education, training and publicity work can work to support the needs of drivers at different stages in their driving career. Alternatives to private motoring when people no longer feel confident can smooth the transition. New insurance schemes for young and older drivers based on patterns of use would help to reduce unsafe and illegal driving.
- To mitigate adverse effects for **religious groups**, there should be better planning for their needs when designing maintenance and asset management to avoid major gatherings or access to religious venues on key festival dates will avoid some problems. The consequence of weekend stoppages for maintenance on religious activity can be better planned to avoid problems. A protocol for advertising and publicity should also be adopted to ensure that this does not offend different religious groups.
- Within **excluded groups and people on low incomes**, many people are forced to run poorly maintained and sometimes unlicensed or uninsured vehicles - travel planning can offer

alternatives as can also community car sharing schemes, cycle routes and safer walking routes.

### **Mitigating Economic Effects**

8.29 The WTLTP notes that transport has a vital role to play in supporting economic activity and growth, and when the transport system fails, this can have a major impact on economic performance. Congestion, delays and overcrowding are already hindering economic activity in West Yorkshire and this is expected to get worse as the population grows and becomes more dispersed. The number of jobs and workers in West Yorkshire are expected to grow much faster than the national average over the next 15 years, and the transport system must support this growth in terms of helping to avoid:

- More severe traffic congestion occurring over more of the day;
- Increased congestion and rail overcrowding, making it difficult for people to access jobs; and
- The reduction of catchment areas for jobs and workers.

## 9 MONITORING

### Monitoring in the Context of the ISA

- 9.1 The SEA Regulations require that an Environmental Report also sets out the measures envisaged to monitor whether significant environmental effects occur due to the implementation of a plan, with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action. For the ISA, Steer Davies Gleave has adopted this principle to ensure compliance with the Regulations, and has also extended it to encompass the other elements of the ISA to ensure a comprehensive approach.
- 9.2 At the scoping stage of the ISA, objectives and indicators were selected and submitted for comment to the statutory environmental bodies (The objectives are set out in **Chapter 4** above). On the basis of the responses received, it is suggested that the WYLTP partners use these indicators as the basis of monitoring the environmental effects of the WTLTP. However, it is not necessary for the partners to monitor these indicators themselves directly. Indeed, The Government guidance on SEA suggests that wherever possible, authorities should use existing monitoring arrangements to obtain the required information<sup>17</sup>.
- 9.3 In recommending indicators to be included in a monitoring framework for the WTLTP, the consultants have as far as possible sought to identify existing data sources and information that is already routinely collected, in particular the National Indicator set. Other additional monitoring (e.g. through increased equality monitoring on satisfaction surveys/customer engagement) has been recommended only where existing data gaps have been identified.

<sup>17</sup> ODPM et al (2005) - *A Practical Guide to the Strategic Environmental Assessment Directive* - Appendix 10, p.88.

Recommended Indicators

9.4 The recommended indicators<sup>18</sup> that should form the basis of monitoring the effectiveness of the WTLTP in terms of sustainability issues are set out in **Table 9.1** following:

**TABLE 9.1 RECOMMENDED INDICATORS FOR MONITORING**

	National Indicator	Indicator Description/Data Source
Environmental Indicators	NI 186:	Per capita reduction in CO <sub>2</sub> emissions by local authority.
	NI 194:	Air quality - % reduction in NO <sub>2</sub> and primary PM <sub>10</sub> emissions through local authority's estate and operations.
	NI 197:	Improved Local Biodiversity - proportion of Local Sites where positive conservation management has been or is being implemented.
	NI186:	Per capita reductions in CO <sub>2</sub> emissions in the 5 districts.
	-	Future population forecasts from Census and NOMIS.
	-	Levels of CO <sub>2</sub> emissions from transport sources from DEFRA/DECC statistics.
	-	Air quality monitoring outcomes from local authorities.
	-	Noise mapping from DEFRA.
	-	Information on key biodiversity resources.
	-	Condition of designated areas of protection for nature conservation from Natural England and other public authorities.
	-	Changes in presence and distribution of protected or at-risk species from Natural England and other public authorities.
	-	Landscape Character Area Descriptions from Natural England.
	-	Other rural/urban character descriptions/evaluations by local authorities (e.g. for LDFs).
	-	Estimates of resource use.

<sup>18</sup> It was announced on 14<sup>th</sup> October 2010 that National Indicators will be replaced with an agreed single list of Whitehall data requirements for local government. This will inevitably affect the ease of monitoring affects, which will be reviewed when further information becomes available.

	National Indicator	Indicator Description/Data Source
	-	Changes in energy consumption by transport from DECC/DfT statistics.
	-	Extent of flood risk areas from the Environment Agency.
	-	Surface water quality from Environment Agency.
Health Indicators	NI 8:	Adult participation in sport and active recreation.
	NI 47:	People killed or seriously injured in road traffic accidents.
	NI 48:	Children killed or seriously injured in road traffic accidents.
Health Indicators (Continued)	NI 55:	Obesity in primary school age children in Reception.
	NI 56:	Obesity in primary school age children in Year 6.
	NI 120:	All-age all cause mortality rate.
	NI121:	Mortality rate from all circulatory illnesses under 75.
	NI 137:	Healthy life expectancy at age 65.
	NI 198:	Children travelling to school - mode of transport usually used
	-	Active People Survey
	-	Data on journeys to work by active modes.
	-	Present mortality rates from Office for National Statistics.
	-	Estimates of preventable deaths from cardiovascular disease, respiratory and pulmonary diseases or similar avoided.
	-	Estimates of adult obesity rates.
	-	Accession outputs for key health facilities.
	-	Index of Deprivation - Access to facilities.
		NI 1:
	NI 15:	Serious violent crime.
	NI 17:	Perceptions of anti-social behaviour
iti es in	NI 20:	Assault with injury crime rate

## Integrated Sustainability Assessment

	National Indicator	Indicator Description/Data Source
	NI 21:	Dealing with local concerns about anti-social behaviour and crime by the local council and police
	NI 25:	Satisfaction of different groups with the way the police and local council dealt with anti-social behaviour
	NI 27:	Understanding of local concerns about anti-social behaviour and crime by the local council and police
	-	Population data and forecasts from Census and NOMIS on target groups breakdown as available.
	-	Crime statistics for public transport from British Crime Survey.
Equalities Indicators (Continued)	-	Increased equality monitoring on satisfaction surveys/customer engagement etc.
	-	Data on numbers of registered disabled people.
	-	Population data and forecasts from Census and NOMIS on ethnic origin breakdown.
	-	Estimates of numbers in sexual minority groups from local authorities.
	-	Accessibility measures (e.g. Accession modelling)
	-	Indices of Deprivation.
Economic Indicators	NI 5:	Overall / general satisfaction with local area.
	NI 151:	Overall Employment rate (working-age).
	NI 152:	Working age people on out of work benefits.
	NI 166:	Median earnings of employees in the area.
	NI 175:	Access to services and facilities by public transport, walking and cycling.
	NI 176:	Working age people with access to employment by public transport (and other specified modes).
	-	Economic data and forecasts from Census and NOMIS.
	-	Data on local markets from local authorities and local agents.

## 10 NEXT STEPS

### Consultation

- 10.1 The SEA Regulations require that the draft WTLTP and the Environmental Report has been prepared has to be made available for consultation. In terms of the ISA, the WYLTP partners have agreed to extend this to include the equalities and economic effects of the WTLTP also covered.
- 10.2 For the consultation, copies of the Assessment Report and the draft WTLTP and Implementation Plans will be published on the WYLTP website ([www.wyltp.com](http://www.wyltp.com)), and copies sent to each of the statutory consultation bodies. The WYLTP partners will also bring the preparation of the documents to the attention of other “public consultees”, and invite them to comment on them. These people are groups or individuals that are likely to be affected by, or have an interest in the assessment and adoption of the WTLTP.
- 10.3 The purpose of consultation on the WTLTP and accompanying Assessment Report is to allow effective engagement and input into the development of the WTLTP. It will help ensure that the plan and the ISA are as comprehensive as possible.
- 10.4 This Assessment Report is being made available publicly alongside the draft Transport Plan to the ‘public consultees’<sup>19</sup> and all interested bodies. A copy of the report will also be sent to the statutory environmental bodies (the Environment Agency, Natural England<sup>20</sup> and English Heritage), who have already received and, where relevant, commented upon the Scoping Report.
- 10.5 When examining the report, consultees may wish to consider the following:
- Do you agree with the general findings of the ISA that the WTLTP will generally have a positive impact for West Yorkshire and that any significant adverse effects will be effectively managed by the mitigation proposals?

<sup>19</sup> See definition in Paragraph 2.8 above.

<sup>20</sup> On 1st October 2006, the former statutory consultees English Nature and the Countryside Agency’s Landscape, Access and Recreation division was united into a single body called Natural England.

- Are there any additional mitigation techniques for addressing the effects of the LTP which have been overlooked?
- Is any significant data on the effects of the WTLTP that is missing or misrepresented?
- In terms of the effects of the WTLTP, are there any alternative strategies or policies which should have been considered?

### Adoption of Final Transport Plan and SEA Statement

- 10.6 As required by the SEA Regulations, a statement will be produced after the Transport Plan is finalised next year, showing how environmental considerations have been integrated into the Transport Plan. It will also indicate how the findings of the Environmental Report have been taken into account in finalising the Transport Plan, and how the consultation responses relating to environmental issues have been addressed.
- 10.7 The Statement must also give the reasons for finally selecting the Transport Plan measures and strategies adopted rather than the alternatives considered, and the accompanying monitoring measures.
- 10.8 This will indicate any actions taken by the WYLTP team during the development of the SEA and Transport Plan to produce a better outcome. It will show how the environment has been considered at every step during the development of the Transport Plan, and relevant information has been reviewed and considered to influence the final shape of the plan.








CONTROL SHEET

Project/Proposal Name West Yorkshire Local Transport Plan 3  
Document Title Integrated Sustainability Assessment  
Client Contract/Project No. -  
SDG Project/Proposal No. 222773-01

ISSUE HISTORY

Issue No.	Date	Details
v2	7 <sup>th</sup> December 2010	Second draft incorporating client comments
V4	25 <sup>th</sup> January 2011	Final incorporating client comments

REVIEW

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DISTRIBUTION

Client: West Yorkshire Local Transport Plan Partnership  
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