

APPENDIX

A

RESPONSES TO COMMENTS RECEIVED ON SCOPING REPORT

Comment	Response
<p><i>Natural England (Letter 9th August 2010)</i></p>	
<p>Policy documents reviewed:</p> <p>We would agree that an appropriate range of documents has been reviewed as listed in Appendix A. Two additional policy documents which may be worth considering are the Regional Biodiversity Strategy, and the Rights of Way Improvement Plans for the individual local authorities in West Yorkshire.</p>	<p><i>Noted. These documents will be reviewed and considered in terms of the finalising of the ISA objectives in the final Assessment Report.</i></p>
<p>Scope:</p> <p>Natural England considers the scope of the ISA to be appropriate. We welcome the consideration of impacts on internationally, nationally and locally designated biodiversity sites (§ 4.24). It should be noted that some sites are designated for their geodiversity interest, and the effects on these should also be considered.</p>	<p><i>Noted. However, it was considered highly unlikely that any policies or proposals of the WTLTP would be likely to have significant effects on geodiversity.</i></p>
<p>We are pleased to note that the creation and improvement of new habitats has been included in table 4.1. We would also wish to see fragmentation of habitat networks, and impact on Biodiversity Action Plan (BAP) habitats, included in the scope of likely effects.</p>	<p><i>Noted. The scope of the ISA will be amended accordingly.</i></p>
<p>We are pleased that the health benefits of active travel have been considered, and that green space and parks have been included under access to health facilities.</p>	<p><i>Noted.</i></p>

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Comment	Response
<p>Baseline</p> <p>Natural England would consider the range of baseline data collected to be appropriate, and again we welcome the inclusion of local, national and international designations as shown on Figure 5.6. We would welcome the inclusion of BAP habitats as indicated in § 5.30. The distribution of BAP habitats in West Yorkshire could also be included in map form.</p>	<p><i>Noted. This will be included in the Baseline Description in the final Assessment Report.</i></p>
<p>We would advise that strategic green infrastructure corridors in the county should be shown in § 5. Natural England has recently completed a green infrastructure mapping project across the Yorkshire and Humber region and the maps have been sent to local authorities, but they are also available at www.naturalengland.org.uk. Green infrastructure has a range of different functions and so this would be relevant to biodiversity, landscape and health issues.</p>	<p><i>Noted. This will be included in the Baseline Description in the final Assessment Report.</i></p>
<p>Objectives and indicators</p> <p>Natural England would support the list of objectives in sections 6.5 to 6.9. We welcome objective EN5 to reduce loss or damage to habitats and secure improvements, but we would advise that this could also include reducing fragmentation of habitat.</p>	<p><i>Noted. This will be amended as suggested in the final Assessment Report.</i></p>
<p>We also welcome the promotion of active travel in Policy H4.</p>	<p><i>Noted</i></p>
<p>Policy H5 could be amended to include specific mention of access to green space.</p>	<p><i>It is presumed this refers to Objective H4 (there is no H5). This will be amended as suggested in the final Assessment Report.</i></p>

Comment	Response
<p>Indicators</p> <p>Natural England welcomes the list of recommended indicators. Information on key biodiversity indicators could include BAP habitats and biodiversity opportunity areas. The latter are key areas which have been identified by the Yorkshire & Humber Biodiversity Forum as those where conservation action is likely to have the greatest benefit for biodiversity.</p>	<p><i>These will be included in the monitoring framework to be set out in the final Assessment Report as recommended.</i></p>
<p>Appraisal methods</p> <p>Natural England supports the proposed appraisal methodology, in particular the consideration of alternative strategies and proposals for mitigation. We consider the proposed methodology for Habitats Regulations Assessment screening to be appropriate. We have been working with the consultants on the HRA and will provide separate comments on the screening report.</p>	<p><i>Noted.</i></p>
<p><i>English Heritage (letter 11th August 2010)</i></p>	
<p>On the whole, we consider that the Report has identified the main issues insofar as the historic environment is concerned and are pleased to note that the comments which we made to the latest consultation have been incorporated into this latest iteration of the Appraisal. As a result, we believe that the document provides the basis for the development of an appropriate framework for assessing the impact which the Plan might have upon these assets.</p>	<p><i>Noted.</i></p>

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Comment	Response
<p>We consider that the Scoping Report has correctly documented the relevant policies, plans and programmes relating to the historic environment and established an appropriate environmental baseline against which to assess the impact of the plan’s proposals. We also broadly support the SEA Objectives which are proposed for the historic environment and landscape.</p>	<p><i>Noted.</i></p>
<p>Page 24 Paragraph 4.28</p> <p>Since SEAs are required to identify potential positive as well as negative effects, it might be worth setting out in this Section some of the potential positive effects LPT3 might have upon the heritage assets of the area. These could include reductions in vehicular traffic through historic areas (with a consequential reduction in damage to buildings through pollution), streetscape enhancement etc (along the lines of Table 4.1).</p>	<p><i>Noted. This will be amended as recommended in the final Assessment Report.</i></p>
<p>Page 56 Paragraph 4.107</p> <p>The need for plans and strategies to safeguard the historic environment is set out in both international and national Policy. Within the LTP3 area, the transportation strategy could, potentially, have significant impacts (both positive and negative) upon the heritage assets of West Yorkshire (e.g. addressing congestion around the Saltaire World Heritage Site).</p>	<p><i>Noted. This will be amended as recommended in the final Assessment Report.</i></p>

Comment	Response
<p>Page 80 Paragraph 5.36</p> <p>This Section also needs to set out the heritage assets in the other three local planning authorities in the LTP3 area. English Heritage published an annual Heritage at Risk Register which provides details of all the designated heritage assets at Risk. This information should be used to provide more accurate details of the state of the historic environment.</p>	<p><i>Noted. This will be amended as recommended in the final Assessment Report.</i></p>
<p>Page 100 Paragraph 6.5 Objective EN6</p> <p>The intentions of this objective are not entirely clear. The second line refers to cultural heritage but the third line deals with townscape/ landscape. In addition, the first line does not make sense.</p>	<p><i>This will be separated into two objectives in the final Assessment Report. The first line will be amended to read “Lead to no loss of, or damage to, areas or features designated for the protection of cultural heritage”. A new objective will read “Secure improvements in townscape/landscape quality associated with the implementation of specific proposals of the plan”.</i></p>
<p>Page 100 Paragraph 6.5 Objective EN7</p> <p>It might be better to amend the second part of this Objective to read: “...and to secure improvements to the character and setting of any historic assets associated with the implementation of specific proposals of the plan”</p>	<p><i>Noted. This will be amended as recommended in the final Assessment Report.</i></p>

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Comment	Response
<p>Page 103 Paragraph 6.10</p> <p>None of the proposed indicators assess the impact which the LTP3 proposals might have upon the area’s heritage assets. As a result, you might consider something along the following lines: <i>“Number of heritage assets or their settings harmed or enhanced by the proposals in LTP3”</i></p>	<p><i>This will be considered and may be included in the monitoring framework set out in the final Assessment Report. However, this will depend on the availability of relevant data.</i></p>
<p>Page 107 Paragraph 7.2</p> <p>It is not clear how you intend to score areas where the likely effects are uncertain and will, for example, depend upon how the proposals are implemented.</p>	<p><i>This will be done on the basis of the best-available information, and following the guidance set out in the DfT’s Transport Analysis Guidance, Unit 3.3. Any areas of uncertainty will be clearly indicated, as required by the Strategic Environmental Assessment Regulations.</i></p>

Comment	Response
<p>Appendix A1</p> <p>For completeness, consideration should also be given to the inclusion of the following:-</p> <p><i>International</i></p> <ul style="list-style-type: none"> ■ UNESCO World Heritage Convention 1972. ■ European Landscape Convention (Florence Convention). ■ The Convention for the Protection of the Architectural Heritage of Europe (Granada Convention). ■ The European Convention on the Protection of Archaeological Heritage (Valetta Convention). ■ European Spatial Development Perspective <p><i>National</i></p> <ul style="list-style-type: none"> ■ The Government’s Statement on the historic environment for England , 2010. 	<p><i>Noted. These documents will be reviewed and considered in terms of the finalising of the ISA objectives in the final Assessment Report.</i></p>

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Comment	Response
<p>English Heritage strongly advises that the conservation staff of the four Councils together with South Yorkshire Archaeology Service are closely involved throughout the preparation of the SEA/SA of the Plan. They are best placed to advise on; local historic environment issues and priorities, including access to data held in the HER (formerly MR); how the policy or proposal can be tailored to minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of historic assets.</p>	<p><i>Noted. This will be facilitated through the ISA Working Group instigated by the WTLTP Team, on which all the relevant local councils are represented.</i></p>
<p><i>Spatial Policy Group, Planning Service, Wakefield Council by e-mail</i></p>	
<p>Wakefield Council is referred to as Wakefield District Council in the Appended list of documents, but it should be Wakefield <u>Metropolitan</u> District Council.</p>	<p><i>Noted. This will be amended as advised.</i></p>
<p>The Local Area Agreements and the Community Strategy for Wakefield are produced by the Wakefield District Partnership, not the Council as stated in the appendices.</p>	<p><i>Noted, this will be amended as advised.</i></p>
<p>No reference has been made to the Leeds City Region Development Programme or Growth Points as far as I can see, which I would have thought would have significant implications for transport in the sub-region.</p>	<p><i>Noted. These documents will be reviewed and considered in terms of the finalising of the ISA objectives in the final Assessment Report.</i></p>

Comment	Response
Wakefield also has an adopted Waste Development Plan Document (DPD) and Development Policies DPD as part of the LDF, which might be relevant to include in the appendix of policy reviewed.	<i>Noted. These documents will be reviewed and considered in terms of the finalising of the ISA objectives in the final Assessment Report.</i>
We will be consulting on our Sites Specific Proposals DPD on 12 August which will provide context to the planned growth for the district, which may be relevant to consider.	<i>Noted. This document will be reviewed and considered in terms of the finalising of the ISA objectives in the final Assessment Report.</i>
Wakefield also has a Landscape Character Assessment for the district which may provide useful additional baseline information.	<i>Noted. This document will be reviewed and information from it incorporated in the Baseline Description in the final Assessment Report as appropriate.</i>
<p>ISA Objectives and Indicators</p> <p>It would be useful to show which indicators relate to which objectives in a summary table rather than listing them under the broad headings</p>	<i>Noted. This will be done in the monitoring framework to be recommended in the final Assessment Report.</i>
<i>Joint Public Health Unit (Wakefield)</i>	
Page 1: We need to emphasise that wherever possible we would aim to maximize the positive impacts rather than just removing or mitigating the negatives.	<i>Noted. This will be done in the final Assessment Report.</i>
Page 9 under Health: add ‘and access to facilities that promote positive health’.	<i>Noted. This will be done in the final Assessment Report.</i>
Page 9 under Equality - add socio-economic status.	<i>Noted. This will be done in the final Assessment Report.</i>

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Comment	Response
<p>The following plans/policies/strategies are missing from the review list in Appendix A and details of how some of this evidence could be integrated into the scope of the ISA are suggested in the points below these links:</p>	<p><i>Noted. These will reviewed and added to the commentary in the final Assessment Report.</i></p>
<p><u>Healthy Weight Healthy Lives: A Cross Government Strategy for England</u></p> <p>(page 20 for information around the impact of the built environment)</p> <p>http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_084024.pdf</p>	
<p><u>Fair Societies, Healthy Lives -The Marmot Review:</u></p> <p>http://www.marmotreview.org/AssetLibrary/pdfs/Reports/FairSocietyHealthyLives.pdf</p> <p>Pages page 80-81 for links between air quality, transport and inequality. See section ‘Create and develop healthy and sustainable places and communities’ (pages 129-139). Demonstrates the links between active travel, good quality spaces and health inequalities.</p>	
<p><u>The Foresight Report</u></p> <p>Includes evidence on the built environment and transport impacts on obesity</p> <p>http://www.foresight.gov.uk/Obesity/17.pdf</p>	

Comment	Response
<p><u>Preventing Unintentional Road Injuries Among Under 15's - Road Design</u></p> <p>To be published Nov 2010 - http://guidance.nice.org.uk/PHG/Wave18/2</p> <p>DRAFT - http://www.nice.org.uk/nicemedia/live/11975/43179/43179.pdf</p>	
<p><u>Take Action on Active Travel</u></p>	
<p>A document around why a shift from car-dominated transport would benefit public health http://www.adph.org.uk/downloads/policies/Take_action_on_active_travel.pdf</p>	
<p>Point 4.5 (page 19) - This should include the impact on the demographics of the population and not just whether overall population numbers will increase or decrease. e.g. If certain age groups / BME groups / socio-economic groups increase or decrease this will place different demands upon the LTP.</p>	<p><i>Noted. This will have been taken into account in the formulation of the policies and proposals of the plan. The dynamic modelling of the policy options will also enable the effects of policies and proposals on population to be better understood.</i></p>
<p>Point 4.38 (page 27) - These effects are likely to be greater amongst the most deprived socio-economic groups (relates to evidence in 4.37)</p>	<p><i>Noted. This will be taken into account in the final Assessment Report.</i></p>

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Comment	Response
<p>Points 4.39-4.40 - Needs to include information on how physical activity and obesity are worse in areas of deprivation. Also needs to be a more explicit link between transport infrastructure and impact on physical activity levels. This needs to take into account the impact on inequality between different population groups (as per Marmot report findings above).</p>	<p><i>Noted. This will be included in the final Assessment Report, based on the available evidence.</i></p>
<p>4.40 - Needs to specify the physical activity recommendation for children and young people.</p>	<p><i>Noted. This will be included in the final Assessment Report.</i></p>
<p>Points 4.41-4.42 - Needs to take into account the differential effects on different population groups e.g. deprived groups (as per Marmot report findings above).</p>	<p><i>Noted. This will be included in the final Assessment Report, based on the available evidence.</i></p>
<p>Point 4.43 - Needs to take into account access to services/facilities/amenities that promote positive health or prevent ill-health. Examples from the Social Exclusion Unit report include - people without a car have problems accessing work, learning opportunities, supermarkets, leisure facilities, libraries, all of which have implications for health and well-being.</p>	<p><i>Noted. This will be included in the final Assessment Report, based on the available evidence.</i></p>
<p>The health scope does not take into account the potential impact that traffic/transport/perceptions of road safety have on children's participation in street play. Traffic volume reduces use of residential street areas as play areas http://www.fph.org.uk/uploads/g_transport_hia.pdf</p>	<p><i>Noted. This will be included in the final Assessment Report.</i></p>

Comment	Response
<p>The health scope also needs to consider the health/mental and social well-being implications around living in areas with high volumes of traffic e.g. community severance, reduced social networks etc http://www.fph.org.uk/uploads/g_transport_hia.pdf</p>	<p><i>Noted. This will be included in the final Assessment Report.</i></p>
<p>4.44 - Define KSI acronym</p>	<p><i>This will be included in the final Assessment Report.</i></p>
<p>4.57 - Alternatively seating (or other street-design considerations) could also be perceived as enabling people with mild disability to maintain a physically active lifestyle and a better quality of life due to the ability to get out and about confidently. The focus on disability in this section is mainly on severe disability rather than those with mild disability that could be prevented from deteriorating due to good access to services.</p>	<p><i>Noted. This will be included in the final Assessment Report.</i></p>
<p>4.65 - The health conditions mentioned need to be extended to include a higher prevalence of diabetes and cardio-vascular disease amongst BAME groups.</p>	<p><i>Noted. This will be included in the final Assessment Report.</i></p>
<p>4.71 - Better ‘active travel’ networks as well as cheaper public transport will also broaden the transport horizons for young people.</p>	<p><i>Noted. This will be included in the final Assessment Report.</i></p>
<p>4.72 & 4.77 - This should acknowledge that due to physical limitations local footpaths need to be designed in a way that suits the needs of older community members. e.g. Marmot report - Survival of older people increases in areas where there is more space for walking near their home and tree-lined streets.</p>	<p><i>Noted. This will be included in the final Assessment Report, based on the available evidence.</i></p>

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Comment	Response
4.74 - Need to acknowledge that ‘young people’ are not a homogenous group and that there are inequalities in opportunities for young people to walk / cycle to places from different areas - e.g. levels are lower in the most deprived areas (as highlighted in Marmot)	<i>Noted. This will be included in the final Assessment Report, based on the available evidence.</i>
4.75 - Safety of active travel increases as the infrastructure improves (Marmot) - therefore perceptions of safety and active travel will improve if cycle and pedestrian ways are improved.	<i>Noted. This will be included in the final Assessment Report, based on the available evidence and the extent to which such measures form part of the policies and proposals of the WTLTP.</i>
4.78 - ASB or perceived anti-social behaviour is also a barrier to people taking up more active forms of travel	<i>Noted. This will be included in the final Assessment Report.</i>
4.85-4.89 - ‘People on low incomes’ / ‘Social Deprivation’ section should take into account the fact that areas experiencing socio-economic deprivation/inequality have poorer educational achievement. The LTP has implications for increasing access to education/learning/training opportunities/reducing young people not in employment education or training (NEET) within these communities.	<i>Noted. Issues of multiple deprivations will be included in the final Assessment Report.</i>
4.85 - Car ownership AND active travel infrastructure is crucial in enabling access to services and amenities. The latter is particularly important for people on low incomes who have lower levels of car ownership, lower activity levels and less expendable income to spend on public transport.	<i>Noted. This will be incorporated into the final Assessment Report, based on the available evidence.</i>

Comment	Response
4.85-4.89 - Evidence of inequalities relating to transport in deprived groups in the Marmot report (e.g. air quality, physical activity, road safety).	<i>Noted. This will be incorporated into the final Assessment Report, based on the available evidence.</i>
'People on low incomes' and 'economy' sections need to be better linked - acknowledge the fact that people on lower incomes experience inequality in access to transport which limit access to work opportunities (e.g. distance travelled - Marmot & car ownership in Social exclusion Unit report). Accessibility to transport has an impact on access to employment opportunities.	<i>Noted. The final Assessment Report will attempt to link these in a more integrated way, based on the available evidence.</i>
5.17 - What does the 65% means in relation to quantifiable impacts on health and well-being?	<i>In terms of the WHO Guidelines, this means that 65% of the population are apparently exposed to night-time external noise levels of 40 dB or more which may lead to adverse health effects, and vulnerable groups are more severely affected. However, it is not possible on the basis of the available evidence to express this in terms of specific quantified effects.</i>
5.72 - this should include information on educational achievement and qualifications and NEET levels due to the implications that transport can have on access to training /education	<i>Noted. This will be incorporated into the final Assessment Report, based on the available evidence.</i>
Table 5.9 - Include childhood obesity (Year Reception and Year 6) data from National Childhood Measurement Programme as well as estimated adult obesity. Link below: http://www.ic.nhs.uk/webfiles/publications/ncmp/ncmp0809/NCMP_2008_09_Online_Tables2.xls	<i>Noted. This will be incorporated into the final Assessment Report, based on the available evidence.</i>

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Comment	Response
Table 5.9 - Include ‘lifestyle’ data - e.g. physical activity levels AND/OR walking/cycling to work/school.	<i>Noted. This will be incorporated into the final Assessment Report.</i>
Table 5.11 - Severe Disability allowance is based on those incapable of work and at least 80 percent disabled. It misses those who have a mild disability. Very low percentage not representative of the spectrum of disability and the different transport issues that need to be taken into consideration.	<i>Noted. This will be incorporated into the final Assessment Report.</i>
5.58 - The parts of the region that have very low BME levels may mean that these groups experience inequalities due to discrimination or reduce accessibility or availability of services.	<i>Noted. This will be incorporated into the final Assessment Report.</i>
5.14 - ‘Retirement age’ needs defining	<i>Noted. This will be incorporated into the final Assessment Report.</i>
5.69 and table 5.16 - Rank needs clarifying e.g. 1=most deprived, 354=least deprived	<i>Noted. This will be incorporated into the final Assessment Report.</i>
4.108 - ‘healthcare professionals’ is misleading. First sentence needs re-wording, “The overall aim of the NHS in Yorkshire and Humber is to work with partners to provide people with the best possible chance of staying in good physical and mental health for as long as possible”.	<i>Noted. This will be amended in the final Assessment Report.</i>

Comment	Response
<p>4.108 - Before the final paragraph there needs to be a sentence such as “The NHS cannot do this alone, strong and focussed partnerships will be key to dealing with the wider 'obesogenic' environment (as identified in the Foresight Report). Supporting healthy behaviours also requires access to a good quality environment and services that promote positive health and well-being”. This would link it to section 4.110.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>4.112 - Another key issue is the massive socio-economic inequality gap in relation to levels of deprivation between communities within the region.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>All health objectives should be more specific in relation to reducing the inequality gap between most/least deprived & most/least healthy. For example reducing transport accidents, air quality related illness, physical inactivity and accessibility to health facilities/assets that promote health through targeting the most disadvantaged areas.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>Could we include an indicator around accessibility of cycle routes and total distance of cycle routes particularly in deprived communities or people with low socio-economic status?</p>	<p><i>This will be considered, but may prove difficult to collate. Also, the length of cycle routes provided does not necessarily provide a proxy indicator for levels of cycling activity.</i></p>
<p>EQ10 - Needs to include deprived communities or people with low socio-economic status</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>EC2 - add ‘areas with high levels of out of work benefits’ into sentence as this links into Economic indicator</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>

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Comment	Response
<p>Indicators need to include some education/qualification/training indicators - e.g. levels of qualification, GCSE achievement, NEET levels to link back to suggestion made in the scope section.</p>	<p><i>Noted. This will be considered and may be incorporated into the final Assessment Report. However, there may be little evidence to support a direct correlation between transport accessibility and educational attainment levels.</i></p>
<p>7.9 - Magnitude of the impact of air quality on health needs to take into account the groups that are likely to benefit or disbenefit e.g. deprived communities / areas where respiratory conditions are higher than average.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>7.12-7.14 - appraising impact on noise - In light of the possible impacts of noise on cognitive performance/educational achievement levels (identified in scope) this should be considered as part of the magnitude e.g. the impact will be greater in areas of lower educational achievement.</p>	<p><i>Noted. This will be considered and may be incorporated into the final Assessment Report. However, there may be little evidence to support a direct correlation between transport noise levels and educational attainment levels.</i></p>
<p>7.27 - Whilst health outcomes measures may not reveal the effect of the LTP on health outcomes, the ISA should take into account areas with poor health where the LTP could have a further negative impact with poor health/improve the situation for local people with poor health/prevent people without such conditions from developing them in the first place e.g. in areas or pockets of the community with high levels of cardio-vascular disease/respiratory conditions/high levels of obesity</p>	<p><i>Noted. This will be considered and may be incorporated into the final Assessment Report.</i></p>

Comment	Response
<p>7.31 - Needs to take into account health facilities and assets/service that promote positive health. In relation to assessing the measures that could be included as part of the LTP the measures should be assessed in relation to the different characteristics of geographical populations across the region as if we adopt a blanket approach the measures in the LTP could potentially increase inequality e.g. inequalities within and between the Districts in the region.</p>	<p><i>The provision of health facilities and assess falls outside the scope of the WTLTP, and therefore is not a direct concern of the ISA in this case.</i></p>
<p>7.35 - We need to make sure that this doesn't just take place with your typical equality groups e.g. gender, age, race. It needs to take into account people living in areas of socio-economic deprivation (both rural and urban).</p>	<p><i>The ISA analysis takes account of the incidence of multiple deprivation.</i></p>
<p>7.37 - Does localized economic effects include impacts on areas/pockets within the region with high unemployment levels?</p>	<p><i>Supporting measures to increase employment levels and economic development priorities identified at local level is a key element of the WTLTP and by implication the ISA.</i></p>

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Comment	Response
<p>Leeds City Council - Transport Policy Comments</p>	
<p>Given the long timescale involved with the LTP3 (up to 2026) it is essential that any indicators are consistently monitored over that period, and that the specific data sources utilised are explicitly referenced.</p> <p>Given that much of this data is from existing sources we don't have any control over the methodology used to determine these figures, but it is essential that we understand how they have been derived and precisely what they relate to. (As an example Census data for 2001 is not consistent with either Temprow or NOMIS!).</p> <p>On that point, it has been noted that quite a few of the tables/figures in Ch 5 don't have quoted data sources.</p>	<p><i>Noted.</i></p> <p><i>Sources will be identified in the Final Assessment Report</i></p>
<p>Other issues with regards to the indicator data is whether they are available at a WY level, and also how frequently the data is collected. For example census data is not frequent enough to be a useful monitoring tool over anything but the long term (in addition it should be borne in mind that the 2011 census may be the last of its kind). Equally, some data has a time lag before it becomes available and is therefore less useful as an indicator which is used to modify a strategy - e.g. Table 5.1 shows CO₂ emissions from 2005-07, but represents the most recent data available.</p>	<p><i>Noted. These will be issues for the monitoring of the effects of the to be carried out by the WYLTP partners.</i></p>
<p>Unless schemes are fully designed to at least a feasibility level it is difficult to see how impacts on flora, fauna, habitats, landscape character, heritage, soil and water can be determined.</p>	<p><i>The approaches adopted in the ISA have been agreed with Natural England. Specific local effects will be considered as part of EIA carried out during consents processes.</i></p>

Comment	Response
<p>With regards to the heritage map (Fig 5.8) it is not clear as to the criteria used to indicate parks and gardens - several significant sites in Leeds are missing e.g. Lotherton Hall, Woodhouse Moor, The Hollies, Golden Acre Park.</p>	<p><i>Noted. This will be amended in the Final Assessment Report.</i></p>
<p>Para 4.34: Injuries may or may not be the most obvious health effect of transport, but it is known that injuries do not have the greatest impact on health of whole populations arising from transportation. It may be worthwhile adding that point to the report so that some sense of perspective is achieved.</p>	<p><i>Noted.</i></p>
<p>Para 4.44: Various forms of discrimination are helpfully identified and the impact that this has on access to transport. It is important to note that fear exists of cycling arising from motor traffic and is very strong, particularly for women, but in the population as a whole and there is also fear in some respects of walking for transport. These fears should be recognised at this point in the scoping report.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>Severance due to transport schemes does not seem to be an issue which is mentioned specifically or included in the objectives, i.e. traffic/road layouts can deter or reduce pedestrian movements - this may often be resolved through the actual design process</p>	<p><i>This is a local rather than a strategic effect, and will be considered as part of the as part of EIA carried out during consents processes.</i></p>
<p>The impacts of transport schemes on the majority of the indicators are likely to be marginal and given the immediate funding constraints and huge uncertainty over future funding it is likely that the impacts will be even more marginal.</p>	<p><i>Noted.</i></p>

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Comment	Response
<p>The ability to forecast the impacts of LTP schemes over a 15 year period, at a meaningful level, appropriate to the indicators is extremely questionable.</p>	<p><i>Noted. The approaches used in the ISA have been agreed with the statutory environmental bodies as required.</i></p>
<p>Looking through the proposed objectives there are a significant number where the impact of the LTP will be marginal at best.</p>	<p><i>Noted. The ISA seeks to identify, as far as is practicable, the extent, magnitude and significance of the effects of the WTLTP, using approaches agreed with the statutory environmental bodies. If these are marginal, then this is what will be reported in the ISA.</i></p>
<p>H4 - this relates to accessibility to specific health facilities and those that promote health (presumably sports centres?). This will either be addressed by changes in the location of these facilities or by changes in bus routers/frequencies. The former is outside the scope of the LTP and the latter is controlled by the bus operators. Unless a QBC is to be introduced it is hard to see how this can be influenced. When it comes to locational changes by Health bodies or local Councils, transport accessibility is unlikely to be the final arbiter of site choice.</p>	<p><i>Noted.</i></p>
<p>Most of the EQ objectives relate to forms of discrimination, which ultimately come down to bus/train operator training. Physical measures to improve access to buses and trains for mobility impaired people have been and are addressed by the LTP, although it is not at all clear as to how effective they have been in increasing the usage of public transport. Monitoring the outcomes is not straightforward. It is unlikely the LTP will have a significant impact on EQ1, EQ2, EQ4, EQ6 & EQ7 particularly, as these are larger problems with society as a whole and not specifically linked to transport.</p>	<p><i>Noted.</i></p>

Comment	Response
<p>EC2 - it would be difficult to show how a LTP will directly reduce levels of unemployment, particularly in the current economic circumstances. Overall the EC objectives are ill defined, and are far from SMART.</p>	<p><i>Noted. The assessment in the ISA will be based on modelled outputs of the economic effects.</i></p>
<p>This document does not contain simple objectives on the numbers of people cycling and walking as part of their regular transport journeys (apart from children walking and cycling to school). It is from this factor, amongst others, that benefits will be found.</p>	<p><i>These are objectives that may be identified in the WTLTP strategy or Implementation Plans, but as transport objectives are not appropriate objectives for the ISA.</i></p>
<p>The document contains the full suite of objectives (section 6.5 onwards) and indicators (section 6.10). The national sets are under continued review and reduction. It would perhaps be useful if the ISA could tease from these what should be at the core of the LTP i.e. some simplification as some areas are not readily quantified at the local level.</p>	<p><i>Noted.</i></p>
<p>Although the DfT Webtag guidance has been revised (Apr 2009) it is not at all clear how this is to be sensibly applied to a 15 year plan with short implementation plans, particularly in the context of the very high levels of uncertainty associated with funding.</p>	<p><i>Noted. The approaches used in the ISA have been agreed with the statutory environmental bodies as required.</i></p>

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Comment	Response
<p>It is not clear from the document how the impacts of LTP3 are to be forecast, however, the use of the UDM is unlikely to be suitable to determine the scale or scope of any impacts on the vast majority of the objectives listed. At the broad level of the LTP and the type of assessment undertaken the use of a seven point scale (para 7.2) surely implies an inappropriate level of knowledge and precision. For the majority of the indicators a 3 point scale would be more relevant: adverse/neutral/beneficial. (NB I am unable to locate the quoted seven point scale in TAG 2.11 - although the appendices include a 5 point scale)</p>	<p><i>The outputs from the UDM have only informed the ISA in relation to specific categories of effect.</i></p>
<p>Para 3.11: The UDM appears to be incapable of properly modelling cycling and walking as discrete modes. Since the potential for cycling in Leeds is not realised (i.e., Leeds is well below even the national average for cycling to work) any potential contribution that cycling may make (e.g. by transferring from motor vehicle journeys to cycling) is ignored or miscalculated, with misleading consequences. The UDM is not thus not fit for purpose in this regard.</p>	<p><i>The outputs from the UDM have only informed the ISA in relation to specific categories of effect.</i></p>
<p>There is a great mass of objectives many of which will be affected by many other factors than transport and some clarity is needed of whether it is proposed that each of these is to be monitored.</p>	<p><i>Noted</i></p>

Comment	Response
<p>The document requires some checking for typos etc (eg - on page 37 para 4.79: the wording should say '17 - 24 year olds' NOT '17 - 14 year olds')</p> <p>The document is very comprehensive and gives the picture required albeit that it is sometimes quite generic. It seems okay as the basis for the plan.</p>	<p><i>Noted.</i></p>
<p>The role of the ISA in the process is understood but there are concerns that this places a heavy emphasis on other areas in comparison to Health generally. This may mean that it will be far easier for schemes that tick a number of environmental boxes to gain support, whereas a pure safety scheme may struggle to meet the criteria for inclusion within the programme. Perhaps consideration should be given to ring fencing a sum for road safety schemes large and small. We have a far better record of hitting targets for Road Safety than any other area in Transport and it would not be difficult to calculate how much we would need each year to stay on track to meet targets.</p>	<p><i>Noted. This is a matter for consideration by the WTLTP partners.</i></p>
<p>Leeds City Council - Comments from Environmental Studies</p>	
<p>4.1: Temporal scope: considering programme of short and long term improvements to the transport system to 2026 - is there any way of building a degree of flexibility in to the assessment to take account of changing priorities / issues? The baseline is likely to be fairly different by 2016 and it is not clear how the assessment will deal with future changes.</p>	<p><i>The changes in baseline conditions have been taken into account where there are future forecasts to draw from in terms of a "business as usual" scenario or are part of the UDM modelling work.</i></p>

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Comment	Response
<p>4.18: A 3dB(A) reduction can also be gained through use of low noise road surfaces without reducing the traffic volume by half. Use of low noise surfacing is a much more realistic proposition to reduce environmental noise in problem areas that halving the traffic flow and so should be given due consideration here.</p>	<p><i>Low noise surfacing is already used in West Yorkshire, as is noted. Accelerating the programme for this would be recognised as an effect of the plan in terms of a mitigation measure. This is not currently identified as a specific policy of the WTLTP strategy.</i></p>
<p>4.22: List of wildlife impacts could include severance / fragmentation of habitat. Transport infrastructure can also provide benefits to wildlife.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>4.22: No positive impacts are listed here, e.g. provision of habitat (road verges for wild flowers; bats roots in bridges).</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>4.26 - 4.27: Street lighting in areas as urban as WY can have a significant impact on landscape/townscape particularly at night.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>4.31 - 4.33: SUDS are starting to be implemented on highway schemes in West Yorkshire to reduce run off of water and flood risk, but they also have a beneficial effect in cleansing the water running through reed beds, etc.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>4.40: Could be worth mentioning that LTP schemes that facilitate journeys on foot or by bike will encourage / enable more people to adopt these healthier modes of travel.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>

Comment	Response
<p>4.91: Mention somewhere the problem of cost of public transport - a graph in the LTP monitoring reports shows the disproportionately cheap cost of motoring compared to public transport, and in particular buses. This is an issue that will need to be addressed if LTP3 hopes to encourage significantly more people to use public transport - at the moment it only really seems to be an attractive option to concessionary users.</p>	<p><i>Noted. This is an issue which is more properly addressed within the WTLTP strategy.</i></p>
<p>Baseline:</p> <p>5.17: WYTEG have not developed a noise mapping model for West Yorkshire - this is something that was discussed within the group but was never progressed.</p>	<p><i>Noted. This will be amended in the final Assessment Report.</i></p>
<p>Objectives and Indicators:</p> <p>6.5: EN2 - What are these targets? Is this realistic for the LTP3 given that many transport carbon reduction measures may be largely outside the influence of LTP3 (e.g. many strategic/motorway routes, development/manufacture/sale of low carbon vehicles).</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>6.5: EN3 - Should include adapting to climate changes other than flood risk given the lifetime of the LTP - e.g. higher temperatures are likely to become more of an issue by 2026, particularly with public transport facilities, etc.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>
<p>Appraisal methods:</p> <p>7.4: Reference to the SEA for LTP2 would also help avoid duplication.</p>	<p><i>Noted. This will be incorporated into the final Assessment Report.</i></p>

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Comment	Response
7.4: NATA is likely to be replaced with a new methodology, with increased emphasis on carbon reduction initiatives.	<i>Noted. NATA methods have not been replaced at the present time.</i>
7.5: The Carbon Assessment undertaken as part of the Leeds City Region Transport Strategy concludes that interventions to promote low carbon vehicles provide by far the greatest contribution (70%) of expected carbon reduction from transport, with all remaining transport interventions combined providing only 30%. Following on from this, LTP3 should aim to make provision for encouraging the uptake of low carbon vehicles into the West Yorkshire fleet.	<i>Noted. This is an issue which is more properly addressed within the WTLTP strategy.</i>
7.13: Initiatives in LTP3 to utilise low noise surfacing can have a significant impact on noise (reductions can be over 3 dB(A) 18hr (L10)).	<i>Low noise surfacing is already used in West Yorkshire, as is noted. Accelerating the programme for this would be recognised as an effect of the plan in terms of a mitigation measure. This is not currently identified as a specific policy of the WTLTP strategy.</i>
7.13: As the objective is to “reduce existing levels of annoyance from noise caused by transport” determining the magnitude of impact should also take account of opportunities presented through LTP3 measures to reduce noise, particularly in problem areas (e.g. use of low noise surfacing).	<i>Noted. This will be incorporated into the final Assessment Report.</i>
7.13: Could also mention the requirement to protect quiet areas and prioritise reducing noise in existing noisy areas, as required under the END as this legislation (action plans, etc) is likely to take shape during the life of the LTP.	<i>Noted. This will be incorporated into the final Assessment Report.</i>

Comment	Response
7.31: Could include health impacts of noise here as this is raised as a health issue in the baseline.	<i>Noted. This will be incorporated into the final Assessment Report.</i>

APPENDIX

B

SUMMARY OF POLICY DOCUMENTS REVIEWED FOR THE ISA

B1 INTERNATIONAL AND NATIONAL LEGISLATION AND POLICIES

Policy Document	Date	Relevance to ISA
<i>Global International Agreements</i>		
Ramsar Convention	1971	Protection of designated areas of wetlands.
Bern Convention	1979	Conservation and protection of wild plant and animal species and their natural habitats.
Kyoto Protocol on Climate Change	1997	Sets overall targets for reductions in greenhouse gas emissions.
Aarhus Convention	1998	Establishes the principle that sustainable development can be achieved only through the involvement of all stakeholders, and links government accountability and environmental protection.
Johannesburg Declaration	2002	Confirms commitment to sustainable development.
Kiev Protocol	2003	Commitment to principles of environmental assessment of policies, plans and programmes, specifically including health effects.
World Health Organisation Age Friendly Cities Guide	2007	Guidance on how to make cities more livable for older people.
Copenhagen Accord	2009	Development of targets for reduction in greenhouse gas emissions.
<i>European Legislation and Policy</i>		
The EC Directive on the Conservation of Wild Birds 79/409/EEC	1979	Establishes designated areas of protection including the habitats of bird species identified as particularly threatened with extinction.
European Landscape Convention (91/676/EC)	1991	Establishes the principle that good landscape is a universal right, and sets out approaches to incorporating its protection into planning policies at regional and local level in EU member states.
Habitats Directive (92/43/EC)	1992	Establishes designated areas of protection for conservation of natural habitats, wild plants and animals.

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Policy Document	Date	Relevance to ISA
Air Quality Framework Directive (96/62/EC)	1996	Sets out binding limit values for a variety of air pollutants.
European Spatial Development Perspective	1999	Sets out spatial development goals for all EU member states for social and economic cohesion, conservation and management of natural resources and cultural heritage, and more balance competitiveness.
Race Equality Framework (2000/43/EU)	2000	Establishes the principle that people should be treated equally irrespective of racial or ethnic origin.
Water Framework Directive (2000/60/EC)	2000	Sets out approaches and targets to protect the quality of surface and groundwaters.
Employment Equality Framework	2000	Establishes a framework for equal treatment in employment and co-operation.
Environmental Assessment of Plans and Programmes Directive (2001/42/EC)	2001	Requires strategic environmental assessment of all plans and programmes relating to statutory processes in EU member states.
European Transport White Paper – ‘European Transport Policy for 2010: Time to Decide’	2001	Identifies key transport problems in the EU and requires modern transport systems must be sustainable from the point of view of economic development and social equity as well as environmental protection.
The Sixth Environment Action Programme of the European Community 2002 – 2012	2002	Specific focus on improvements in tackling climate change, protecting nature and biodiversity, improving the environment and health, and managing natural resources and waste.
The Second European Climate Change Programme	2005	The main instrument of the EU's climate policy, covering means to seek a reduction in greenhouse gas emissions from aviation and road transport, carbon capture and storage, adaptation and the EU Emission Trading System.
The EU Sustainable Development Strategy (SDS) 2006	2006	Sets how EU member states should meet the challenges of sustainable development.
Assessment and Management of Environmental Noise Directive 2002/29/EC and associated Regulations (2006)	2006	Requires noise mapping and development of action plans to reduce noise exposure.

Policy Document	Date	Relevance to ISA
Keep Europe Moving – Sustainable Mobility for our Continent: Mid-Term Review of White Paper	2006	Reaffirms the main guiding principles of the 2001 Transport White Paper (see above).
Floods Directive (2007/60/EC)	2007	Requires EU Member States to assess if all water courses are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.
Waste Framework Directive	2008	Sets out a hierarchy as the basis of waste management policy for EU member states and sets targets for waste reduction and recycling.
European Union “Action Plan on Urban Mobility”	2009	Proposes measures to achieve identified goals for sustainable urban mobility.
A Sustainable Future for Transport – Towards an Integrated, Technology led and User Friendly System	2009	Strategic policy framework for transport and responses to challenges posed by an ageing population, migration, security, environmental protection, natural resource management and urbanisation.
<i>National Policy and Legislation</i>		
Wildlife and Countryside Act (as amended)	1981	Implements the EU Birds and Habitats directives (see above) in the UK, and places a duty on local authorities to protect biodiversity.
UK Biodiversity Action Plan	1994	Identifies priority habitats and species, and sets out action plans for their protection and conservation.
PPG 24 – Planning and Noise	1994	Sets out how planning controls can be used to reduce the adverse impacts of noise on communities and individuals.
PPG 2 – Green Belts	1995	Sets arrangements for the protection of green belts and how these contribute to sustainable development.
Countryside and Rights of Way Act	2000	Extends the ‘right to roam’ in the countryside, and strengthens protection for designated areas such as SSSIs, AoNBs etc.

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Policy Document	Date	Relevance to ISA
Race Relations (Amendment) Act	2000	Places a duty on local authorities to promote race equality.
PPG 13 – Transport	2001	Guidance on integration of transport and land use planning at all spatial levels, and promoting more sustainable transport choices.
'Working with the Grain of Nature': A Biodiversity Strategy for England	2002	Seeks to ensure biodiversity is embedded as a principle underlying all areas of public policy.
PPG17: Planning for Open Spaces, Sport and Recreation	2002	Sets out principles for supporting social inclusion, community cohesion and healthier lifestyles by promoting better access to open spaces and recreational facilities.
Every Child Matters	2003	Programme to provide all children support to be healthy, stay safe, enjoy and achieve, make a positive contribution and achieve economic well-being.
Making the Connections: Final Report on Transport and Social Exclusion	2003	Examines links between social exclusion and transport, focusing on accessibility, safety and security, cost, information, travel horizons and the location of other services.
Sustainable Communities: Building for the Future	2003	Identifies the key requirements to deliver sustainable communities, including transport needs and a safe and healthy local environment.
Tackling Health Inequalities: A Programme for Action	2003	Plans to tackle health inequalities, and sets targets to reduce the gap in infant mortality across social groups and raise life expectancy in the most disadvantaged areas.
PPS7: Sustainable Development in Rural Areas	2004	Sets out planning policies for rural areas to raise quality of life, promote sustainable patterns of development and improve economic performance.
PPS23: Planning and Pollution Control	2004	Sets out how planning can be used to control pollution and land contamination.
The Public Health White Paper: Choosing Health – Making Healthy Choices	2004	Sets out practical and acceptable actions to make a difference to the health of people across England, including a commitment to provide better opportunities for people to be more active through cycling, walking and easier access to sports facilities.

Policy Document	Date	Relevance to ISA
Securing the Future: The Government's Sustainable Development Strategy	2005	Sets out objectives and priorities for delivering sustainable development in the UK.
PPS 9 – Biodiversity and Geological Conservation	2005	Sets out key principles for the protection and enhancement of biodiversity and geological resources in land use plans.
PPS10: Planning for Sustainable Waste Management	2005	Sets out the waste hierarchy and principles to be taken into account in local authority waste management plans.
Disability Discrimination Act	2005	Places a duty on local authorities to promote equality of opportunity for people with disabilities, and to eliminate discrimination and/or harassment on the grounds of disability.
Securing the Regions' Future	2006	Sets out the ways in which the Government will strengthen delivery of sustainable development at the regional level.
Climate Change UK Programme	2006	Sets out policies and priorities for reduction of greenhouse gas emissions.
Natural Environment and Rural Communities Act	2006	Establishment of Natural England as a body responsible for conserving, managing and enhancing England's natural environment and as statutory consultee for SEA.
PPS25: Development and Flood Risk	2006	Sets out the framework for policies to avoid, reduce and manage flood risks through planning controls.
A Sure Start to Later Life: Ending Inequalities for Older People – A Social Exclusion Unit Final Report	2006	Proposals to extend the 'Sure Start' principles of accessing a range of support services through a single location to older people.
Equality Act	2006	Outlaws discrimination on the basis of gender and religion.
Planning for a Sustainable Future	2007	Detailed proposals for reform of the planning system, including decision-making processes for infrastructure schemes on national importance.
Equalities Review	2007	Examination of the causes of persistent discrimination and inequity in British society.

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Policy Document	Date	Relevance to ISA
PPS1: Delivering Sustainable Development (2005) and PPS1 Supplement: Planning and Climate Change	2007	Sets out how spatial planning should contribute to the reduction of greenhouse gas emissions and adapt to the unavoidable effects of climate change.
Air Quality Strategy for England, Scotland, Wales and Northern Ireland	2007	Sets limit values for various air pollutants, implementing the EU Air Quality Directive (see above) in the UK.
Child Road Safety Strategy	2007	Sets out actions and targets to further improve child road safety until 2010 and beyond.
Waste Strategy for England	2007	Sets out key objectives to decouple waste growth from economic growth, deliver and exceed the EU Landfill Directive targets and other aspects of waste management.
Meeting the Energy Challenge: A White Paper on Energy	2007	Sets out a strategy to cut greenhouse gas emissions, with targets to be achieved, and to secure clean and affordable energy.
Future water: Government's Water Strategy for England	2008	Sets out practical steps to ensure good clean water is available for people, business and nature through to 2031.
The Climate Change Act	2008	Establishes legally binding targets for reduction in greenhouse gas emissions.
Delivering a Sustainable Transport System	2008	Sets out overall goals for transport policy, including an emphasis on supporting economic growth, reducing carbon emissions, improving quality of life, promoting equality and better safety and security.
Guidance on the Promotion and Creation of Physical Environments to Support Increased Levels of Physical Activity (NICE)	2008	Provides evidence-based recommendations to encourage better uptake of physical activities, including walking and cycling.
Building a Society for all Ages	2009	Sets out proposals to help instil a major cultural shift and help Britain prepare for demographic change which is seeing people live longer lives.
The Low Carbon Transition Plan and Low Carbon Transport 'A Greener Future'	2009	Identifies practical means to reduce carbon emissions, particularly from transport sources.

Policy Document	Date	Relevance to ISA
PPS4: Planning for Sustainable Economic Growth	2009	Updates and replaces various previous PPGs to advocate more flexible approaches to delivering sustainable economic growth.
Be Active Be Healthy: A Plan for Getting the Nation Moving	2009	Provides a framework for delivery of more physical activity alongside sport in the run-up to the London 2012 Olympic Games.
Healthy Lives, Brighter Futures – the Strategy for Children and Young People’s Health	2009	Sets out means of improving children and young people’s health, including school travel plans to encourage walking and cycling.
A Safer Way: Consultation on Making Britain’s Roads the Safest in the World	2009	Sets out proposed targets and measures to improve road safety further beyond 2010.
Equality Framework for Local Government	2009	Performance improvement and benchmarking tool for local authorities.
Walking and Cycling: An Action Plan	2009	Identifies measures across Government to increase levels of active travel.
Beyond Copenhagen: The UK Government’s International Climate Change Action Plan (2010)	2010	Sets out how the principles of the Copenhagen Accord (see above) will be implemented in the UK, through low-carbon infrastructure, emissions trading and carbon capture/storage.
Equality Act	2010	Extends the prohibition of discrimination to cover of age, sexual orientation, and socio-economic disadvantage, as well as existing bans on discrimination due to gender, race, religion or disability.
Consultation on a PPS: Planning for a Low Carbon Future in a Changing Climate	2010	Aims to provide updated and revised advice to replace PPS1 (see above).
PPS5: Planning for the Historic Environment	2010	Provides an integrated approach to conserving the historic environment, and sets out objectives and policies to deliver this.
Consultation on a PPS: Planning for a Natural and Healthy Environment	2010	Sets out proposals for streamlined policies relating to biodiversity, geological and landscape protection, land quality and planning for open space.

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Policy Document	Date	Relevance to ISA
Flood and Water Management Act	2010	Provides better, more comprehensive management of flood risk for people, homes and businesses.

B2 REGIONAL POLICIES

Policy Document	Date	Relevance to ISA
The Yorkshire and Humber Regional Economic Strategy 2006-2015 and progress update	2007	Strategy by Yorkshire Forward, which provides a set of common priorities for the region, helping businesses, public agencies, voluntary groups and communities to focus their investment.
The Yorkshire and Humber Plan: Regional Spatial Strategy to 2026	2008	Sets out the spatial policies for development of the region, including the Regional Transport Strategy and policies for sustainable development.
Staying Healthy	2008	Report by Clinical Pathway Group of the Yorkshire and Humber NHS examining health disadvantages in the region and the means to address these.
Joint Local Authority – Yorkshire Forward Position Paper	2008	Proposals for a joint approach between local government and Yorkshire Forward to the development and delivery of a single, integrated regional strategy (IRS)
Monthly Economic Update	On-going	Monthly reports produced by Yorkshire Forward's Chief Economist.

B3 LOCAL POLICIES

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Leeds Local Development Framework: Core Strategy (Dec 2009) - Leeds City Council</p>	<p>The objectives of the LDF lie in two broad themes, which provide a framework to deliver the RSS and Vision for Leeds priorities. The themes are supported by a series of interrelated Spatial Objectives.</p> <ul style="list-style-type: none"> • A Distinctive Place <ul style="list-style-type: none"> ○ Green Infrastructure. ○ Sustainable Communities. • Shaping the Future <ul style="list-style-type: none"> ○ Managing the Needs of a Growing City. ○ Managing Environmental Resources. ○ A Well Connected City. 	<p>The LTP will help deliver the LDF targets, particularly in providing a 'Well connected City' via the provision of high quality sustainable transport and promoting accessible development.</p>
<p>Vision for Leeds 2004 to 2020 (April 2004) - Leeds Initiative</p>	<p>The Strategy has three high-level aims;</p> <ul style="list-style-type: none"> • Go up a league - making Leeds internationally competitive. • Narrow the gap between the deprived parts of the city and the rest. • Develop Leeds' role as a regional capital. 	<p>The LTP can help support the objectives relating to continued economic development, access to vital facilities to improve living standards etc</p>
<p>A Local Area Agreement for Leeds 2006 – 2009 - Leeds Initiative</p>	<p>The LAA priorities have been informed by regional economic, housing and spatial strategies and sub-regional plans for transport. The four blocks are:</p> <ul style="list-style-type: none"> • Children and Young People • Healthier Communities and Older People • Safer and Stronger Communities • Economic Development and Enterprise 	<p>The LTP can support the LAA objectives in a variety of ways. From providing concessionary travel, improving accessibility, increasing public transport use and removing transport barriers</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Wakefield Local Development Framework: Core Strategy (Apr 2009) - Wakefield District Council</p>	<p>The LDF has defined a number of strategic objectives in order to deliver its vision, which are:</p> <ul style="list-style-type: none"> • Ensure all new development and land use adheres to principles of sustainable development. • build on links with the Leeds City Region. • Locating development in such a way to reduce the need to travel. • To make travel easier within the district and region via sustainable modes. • provide sufficient good quality housing. • create attractive, successful and accessible city and town centres. • support the growth of a dynamic local economy. • provide high quality, accessible leisure and culture opportunities. • ensure natural environment is protected. • promote a clean, attractive and safe environment. • to reduce the impact of climate change. • to protect historic heritage. 	<p>The LTP has a role is providing better accessibility and connectivity and reducing the environmental burden within the district. These effects are likely to impact upon many of the LDF objectives</p>
<p>Developing Knowledge Communities: Wakefield District Community Strategy (Mar 2007) - Wakefield District Council</p>	<p>The priorities focus upon the following areas;</p> <ul style="list-style-type: none"> • feeling and being safer. • looking after ourselves. • dynamic local economy. • investment in people. • improving places. 	<p>The LTP can play a role In improving the accessibility of jobs and services and providing more travel opportunities.</p>

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Families and Neighbourhoods: Wakefield District Local Area Agreement 2008 2011 - Wakefield District Council</p>	<p>LAA priority outcomes identified using the priorities taken from the Community Strategy. These are;</p> <ul style="list-style-type: none"> • A reduction in the level of worklessness throughout the district and in particular in those neighbourhoods with higher than average levels. • An increased stock of sustainable businesses in the district, in particular knowledge based enterprises. • A highly skilled and enterprising workforce. • A higher level of achievement for all young people. • Improved health and reduced health inequalities through reducing the prevalence of harmful lifestyles. • Improved adult health particularly in the most deprived communities. • That all children throughout the district are safe and healthy. • A cleaner, well maintained, accessible and valued environment for the benefit of and in co-operation with those who live, work and visit the district. • Communities that feel and are safer with a reduction in the harm caused by crime and anti-social behaviour especially in the most deprived areas of the district. • More cohesive communities where people are involved and are able to influence what happens in their neighbourhood. • Improved housing provision and housing environments. 	<p>Many of the priorities have transport related implications and reflect what the local residents and stakeholders envisage for the city and need to be considered as part of the LTP development.</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
? Calderdale District Council	<p>In brief, the strategic objectives are;</p> <ul style="list-style-type: none"> • Follow principles of sustainable development in the location and design of new development. • Address the causes of climate change and mitigate its effects. • Meet the economic needs of the district. • Protect open spaces and green infrastructure. • Protect and enhance the character quality and diversity of the natural environment. • Protect the District's historic heritage. • Ensure the provision of a safe and efficient transport system. 	<p>The LTP will have a direct influence upon the final objective. Additionally it is likely to influence the economy and environment and will indirectly affect many of the objectives</p>
Calderdale's Sustainable Community Strategy (Jan 2010) - Calderdale District Council	<p>The CSC focuses on 7 outcomes which it wishes to achieve to satisfy its vision:</p> <ul style="list-style-type: none"> • Safeguarding Calderdale's future and fostering economic prosperity for all. • Improve the quality of our environment and promote respect for Calderdale's heritage. • Prosper as a place where people can feel safe and are encouraged to get involved in shaping their future. • Reduce the amount of preventable ill-health across the population as a whole. • Ensure that people stay in control of their lives and play a full and active role in society. • Flourish as a place where every child and young person thrives, is safe and happy. • Work to ensure that the differences in health, quality of life and economic prosperity between different communities within Calderdale reduce. 	<p>Whilst there are not specific transport strategies, the LTP is likely to indirectly affect several of the outcomes.</p>

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
Calderdale Local Area Agreement 2 - Calderdale District Council	<p>The targets for the LAA fall into six main categories;</p> <ul style="list-style-type: none"> • Environment. • Safer and Stronger Communities. • Healthier Communities. • Old People. • Children and Young People. • Economy and Enterprise. 	<p>Whilst there are not specific transport strategies, the LTP needs to support the environment and economy objectives</p>
Bradford Local Development Framework: Core Strategy - Further issues and options for consultation (Jan 2008) - Bradford Metropolitan District Council	<p>The proposed plan objectives;</p> <ul style="list-style-type: none"> • Planning for growth. • Housing needs. • Economy and jobs. • Transport and accessibility. • Community facilities. • Environment. • Waste management. 	<p>The LTP should address the transport objectives and those related to growth and economy</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>The Big Plan for the Bradford district 2008-2011 - our sustainable community strategy - Bradford Metropolitan District Council</p>	<p>The priorities are focused around the following themes:</p> <ul style="list-style-type: none"> • Prosperity and Regeneration: including transformational priorities of regeneration and improving skills, and covering other economic issues such as business growth and aspects of culture, housing and transport. • Children and Young People: including the transformational priority of improving education outcomes. • Safer Communities: building public confidence, trust and satisfaction by reducing crime and anti-social behaviour, tackling its causes and increasing people's feeling of safety and security in their homes and neighbourhoods. • Health and Wellbeing for All: dealing with the causes of major public health and life-style problems and working together to prevent illness and extend productive, independent life, especially for those groups experiencing the worst health or in need of care and support. • Improving the Environment – clean, attractive neighbourhoods; reducing and managing waste sustainably; and reducing our impact on climate change. • Strong and Cohesive Communities – working with citizens to help them become actively involved and self-confident, to make their communities stronger and invest resources locally in neighbourhood improvement. 	<p>The LTP is likely to play a role in achieving the prosperity and regeneration and improving the environment objectives, both of which are directly affected by transport.</p>
<p>The Bradford district local area agreement - Connecting people and places to economic prosperity - Bradford Metropolitan District Council</p>	<p>The LAA contains 35 indicators that were identified as priorities for action, and which have specified targets to be achieved over 3 years. This package of indicators and targets was negotiated and agreed by the partners with central government.</p>	<p>The LTP has a role to play, particularly in achieving the objectives of enhancing transport and connectivity and providing a more sustainable environment</p>

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
Kirklees Local Development Framework Core Strategy Options (Feb 2009) - Kirklees Council	<p>A set of strategic objectives for the LDF, which would help to deliver the community strategy, was agreed with the Council's partners, as follows:</p> <ul style="list-style-type: none"> • Housing suited to needs • a strong economy • sustainable travel • services provided where people want them • better open spaces • well designed building and spaces • local distinctiveness • better nature conservation • better water management • prudent use of natural resources 	<p>The LTP needs to support the economic, environmental and sustainable travel objectives.</p>
Sustainable Community Strategy 2009-2012 - Kirklees Council	<p>To achieve our ambitions and meet these challenges the Partnership has agreed a number of shared priorities:</p> <ul style="list-style-type: none"> • Closing gaps in health, attainment, skills, employment and wages • Reducing poverty, disadvantage and crime • Improved community relations • Support to families and the wellbeing of older people • Responses to recession • A secure future for all our towns • Carbon reductions • Efficiencies, innovation and value for money 	<p>Whilst there are no transport objectives, the LDF may have an indirect impact upon the objectives mentioned</p>
Kirklees Local Area Agreement (Mar2009) -Kirklees Council	<p>The LAA is presented in four themes:</p> <ul style="list-style-type: none"> • Children and young people • Safer stronger communities • healthier communities and older people • economic development and the environment 	<p>The LTP may support objectives concerned with combating climate change and improving local transport</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
Air Quality Action Plan Progress Report (Dec 2008) - Leeds City Council	<p>No significant contribution to ground level concentrations of nitrogen dioxide from sources other than road vehicles.</p> <p>Nitrogen dioxide daily objective value very unlikely to be exceeded, although kerbside annual objective values exceeded at some suburban background and urban centre locations. PM10 objective values are not likely to be exceeded at any location within the Leeds.</p>	<p>The generation of additional pollution from road traffic has implications for air quality. The LTP can support air quality objectives across the Metropolitan Area through measures such as reducing the need to travel, reducing congestion and promoting alternative sustainable means of travel.</p>

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Aire Valley Leeds Area Action Plan - The alternative options (Apr 2006) - Leeds City Council</p>	<p>Options for the plan include:</p> <p>Employment</p> <ul style="list-style-type: none"> • Promote new office development within easy walking distance to the rail station • Promote office as part of mixed use development on the fringe of the city centre • Promote office development on out-of-centre developments <p>Industry</p> <ul style="list-style-type: none"> • Allocate most land for industry and warehousing • Allocate some land for industry and warehousing to meet needs and the rest as other land uses <p>Housing</p> <ul style="list-style-type: none"> • Focus new housing on the fringe of the city centre. • Include additional sites for new housing development <p>Leisure</p> <ul style="list-style-type: none"> • Focus new leisure within/on-edge of city centre • Provide small scale leisure as part of larger developments • Identify sites to accommodate major leisure development <p>Recreation</p> <p>R1 - protect and maintain existing recreation facilities R2 - Open up length of river corridor for recreation and improve access R3 - Create riverside park</p> <p>Waste</p> <p>W1 - should not be considered exclusively as the best site for sustainable energy site W2 - should not be considered appropriate the best site for sustainable energy site</p> <p>Transport</p> <p>T1 - continue transport development incrementally T2 - unrestrained demand led approach T3 - planned program of balanced package</p>	<p>To take account of emerging transport proposals in the Area Action Plan which support delivery of the vision for the area.</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
Local Air Quality Management Action Plan 2010 - Wakefield District Council	<p>Areas of the district have been found to exceed the nitrogen dioxide national objectives and have been formally declared as Air Quality Management Areas (AQMAs). These include:</p> <ul style="list-style-type: none"> • An area covering the M1 motorway through the district; • An area covering the M62 motorway through the district; • An area covering the A1 through the district; • An area covering the whole of Wakefield city; • An area covering the centre of Castleford; • An area covering a major junction in Featherstone; • An area covering a major junction in Pontefract; • An area covering the centre of Knottingley, and; • An area covering the main road through Ackworth. 	<p>The generation of additional pollution from road traffic has implications for air quality. The LTP can support air quality objectives across the Metropolitan Area through measures such as reducing the need to travel, reducing congestion and promoting alternative sustainable means of travel.</p>
Central Wakefield Area Action Plan (Jun 2009) - Wakefield District Council	<p>Central Wakefield Area Action Plan Objectives</p> <ol style="list-style-type: none"> 1. To reduce traffic levels within Wakefield city centre and enable all users to gain equal access to shops and services by making it more pedestrian friendly, safer and more accessible by foot, bicycle and public transport. 2. To encourage city living for different types of household and tenure 3. To regenerate the local economy by focussing major new office, retail and leisure development within central Wakefield 4. To protect and enhance the historic and distinctive character of central Wakefield 5. To promote the highest standards of design and construction in new developments within central Wakefield 6. To enhance the public realm and improve links between the city centre and surrounding areas 7. To protect and enhance the natural environment by promoting biodiversity and recreational opportunities 8. To influence the location, layout and design of new development so that it reduces or minimise the risk of flooding 9. To increase the attractiveness of central Wakefield 10. To promote a vibrant evening economy 	<p>To take account of emerging transport proposals in the Area Action Plan which support delivery of the vision for the area.</p>

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Calderdale Air Quality Management Area (no 1-6) (Jun 2007) - Calderdale District Council</p> <p>Air quality action plan: consultation draft (Jul 2009) - Bradford Metropolitan District Council</p>	<p>Key actions for improving air quality-</p> <ul style="list-style-type: none"> • Improve traffic management and reduce congestion • reduce number of trip through and within AQMA • Encourage PT, walking and cycling • Encourage fuel efficient and smaller vehicles • Reduce emissions from HGV and buses • Reduce none transport related emissions • better alignment of planning development control and air quality <p>To ensure that air quality is managed appropriately Bradford believes it should commit to:</p> <ul style="list-style-type: none"> • Developing an Air Quality Strategy. This would have the key aims that development planning and local transport planning should continue to adopt appropriate policies and measures aimed at improving air quality wherever possible (across the district and within the AQMAs in particular) and that planning decisions should not lead to the declaration of new AQMAs. • Implementing complementary local measures such as: <ul style="list-style-type: none"> ○ Adopting a low emission strategy when procuring and operating vehicles and services requiring the use of vehicles ○ Adopting practices within a Freight Strategy that focus on reducing emissions from freight within Bradford by helping freight move efficiently and to encourage the uptake of cleaner vehicles and ○ Reducing congestion in the AQMAs • Achieving better travel choices in the District by making information on purchasing and travel choices more readily available and by continuing to actively engage with all parts of the community (individual, institutional and commercial) to implement more sustainable travel plans. 	<p>To take account of emerging transport proposals in the Area Action Plan which support delivery of the vision for the area.</p> <p>The generation of additional pollution from road traffic has implications for air quality. The LTP can support air quality objectives across the Metropolitan Area through measures such as reducing the need to travel, reducing congestion and promoting alternative sustainable means of travel.</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
Bradford City Centre Area Action Plan - Issues and Options (Aug 2007) - Bradford Metropolitan District Council	<p>The Draft Spatial Vision will be achieved through the following Draft Objectives:</p> <ol style="list-style-type: none"> 1. A unique, high quality shopping and leisure experience reflecting the city's cultural mix. 2. An attractive, inclusive and safe environment, including a new city centre park which is distinctive to Bradford. 3. Imaginative reuse of the architectural heritage alongside new development of high quality sustainable design. 4. A range of good quality housing and facilities to cater for a successful city centre community. 5. A thriving economy with new office developments, and a growth in science and creative industries. 6. An enhanced higher education campus, with the University and College forming an integral part of the city centre. 7. Easy access to and around the centre for all sections of the community, and a reduction in through traffic problems. 8. Excellent links with surrounding communities and other major destinations across the region. 9. A rich and diverse variety of plants, birds, animals and insects as part of new linear parks, open spaces and waterways to enhance the quality of life and experience of visitors and residents alike. 	<p>To take account of emerging transport proposals in the Area Action Plan which support delivery of the vision for the area.</p>

Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Kirklees Local Air Quality Strategy (Apr 2007) Kirklees Council</p>	<p>Kirklees actively seeks to achieve the Strategy's aims in the Council's policies plans and programmes, particularly in the following areas</p> <ul style="list-style-type: none"> • legal obligations for "Local Air Quality Management" • monitoring and assessment of air quality across Kirklees • pollution control and industrial regulation • planning system including current development control and the evolving Local Development Framework • early consideration of air quality in major projects and partnerships • West Yorkshire Local Transport Plan • Kirklees 2025 Transport Vision • Kirklees 2025 Environment Vision and the Council's Environment Policy • Kirklees Green Design Guides • Kirklees Biodiversity Action Plan • other developing environmental initiatives 	<p>To take account of emerging transport proposals in the Area Action Plan which support delivery of the vision for the area.</p>

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Document	Objectives, targets and Indicators	Implications for the WY LTP and ISA
<p>Huddersfield Town Centre Area Action Plan - issues consultation (Nov 2009)</p> <p>Kirklees Council</p>	<p>Objectives of the AAP</p> <ul style="list-style-type: none"> • Objective 1 - To enhance the retail experience for residents and visitors • Objective 2 - To develop a new sports centre in a sustainable and easily accessible area • Objective 3 - To identify opportunities for a centralised health facility • Objective 4 - To identify opportunities within the Huddersfield Town Centre AAP to provide top quality (Grade A) office accommodation • Objective 5 - To identify further opportunities for town centre living for a range of household types • Objective 6 - To improve movement in and around the town centre for all sections of the community. • Objective 7 - To address the issue of the Ring Road as a barrier between the town centre and adjoining areas. • Objective 8 - To create better visual and pedestrian links from Northumberland Street to the Stadium • Objective 9 - To protect and capitalise on Huddersfield's Victorian townscape • Objective 10 - To protect and enhance the natural assets in the AAP area such as the river, canals, key views and vistas • Objective 11 - To create an attractive, well designed, inclusive and safe place to live, work, shop and play 	<p>To take account of emerging transport proposals in the Area Action Plan which support delivery of the vision for the area.</p>

APPENDIX

C

INFORMATION ON BASELINE CONDITIONS

C1 INTRODUCTION

- C1.1 In this Appendix, we set out the information used to determine the baseline against which the effects of the ISA have been assessed. In this context, the baseline is taken to mean the environmental, economic and social conditions that are prevalent in West Yorkshire at the time the assessment is being carried out, taking account (as far as is possible given the time and resources available) of how these may change during the life of the LTP (i.e. up to 2026). This has been identified in a number of ways, e.g. through the use of existing data available or through undertaking additional surveys, studies and modelling.
- C1.2 The information that has been collated by the consultants typically includes:
- The sources of information used;
 - The extent of consultation with external bodies; and
 - Any limitations pertaining to the baseline information or to the collation process.
- C1.3 On this basis, the baseline information will be amended throughout the ISA process as new information emerges in line with development of the policies and proposals to be set out in the LTP and the consultation processes that will accompany this.

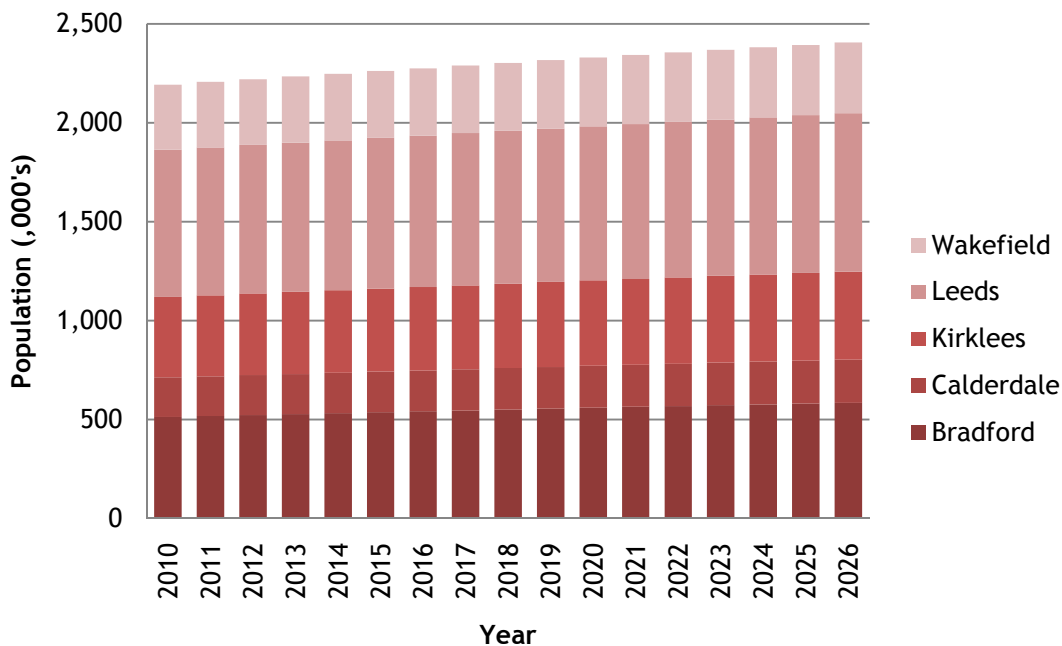
C2 ENVIRONMENT

Population

- C2.1 Demographic forecasts for West Yorkshire indicate headline growth of some 14% over the period up to 2026, from 2.1 million presently to 2.4 million¹. This will be principally as a result of stronger growth of the over 60s age group (which will increase by 40%) than the that of the 18 and under age group (which will only increase by 3%). This is illustrated in the figure on the following page:

¹ It should be noted that these projections are slightly lower than those included in the National Trip End Model used as the basis of planning for the WTLTP due to different basis on which the forecasts are made. However, the trends identified are broadly similar.

APPENDIX FIGURE C.1 PROJECTED POPULATION GROWTH IN WEST YORKSHIRE (2010 - 2026)



Source: Office of National Statistics

C2.2 In spatial terms, there is a good deal of variation in how the population of West Yorkshire will change over the WTLTP period as indicated in the following table:

APPENDIX FIGURE C.2 PROJECTED POPULATION GROWTH IN WEST YORKSHIRE BY DISTRICT(2010 - 2026), THOUSANDS

District	2004	2026	Change
Bradford	511.9	583.5	14.0%
Calderdale	200.2	217.8	8.8%
Kirklees	407.6	445.2	9.2%
Leeds	743.7	801.4	7.8%
Wakefield	329.3	357.2	8.5%
West Yorkshire	2,192.7	2405.1	9.7%

Source: Office of National Statistics

C2.3 This shows that the population of Bradford is projected to grow about 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

C2.4 Carbon dioxide (CO₂) is the main greenhouse gas that is widely held to be responsible for recent changes to our climate. CO₂ is emitted by road vehicles through the consumption of carbon-based fuels. If traffic levels continue to increase, CO₂ emissions are also likely to continue to rise, although this may be mitigated by technical and other measures. Estimates of CO₂ emissions from road traffic in West Yorkshire are taken from Department for Transport data for 2005- 2007 (the most recent data available) set out below:

APPENDIX TABLE C.1 ESTIMATES OF ANNUAL CO₂ EMISSIONS FROM ROAD TRAFFIC IN WEST YORKSHIRE, 2005-7 (TONNES)

	2005	2006	2007
City of Bradford	625,440	613,630	618,630
Calderdale	441,490	428,820	436,910
Kirklees	725,690	716,760	727,520
City of Leeds	1,721,030	1,691,380	1,707,590
City of Wakefield	822,180	800,670	807,660
Total West Yorkshire	4,335,830	4,251,260	4,298,310

Source: Department for Transport

C2.5 The full Department for Transport (DfT) dataset accounts for all emissions that occur within the boundaries of a local authority. However, it is considered that local authorities would not be able to directly influence some of these types of emissions, for instance from motorways, EU emissions trading schemes sites, or diesel railways. Therefore, the National Indicator 186 (NI 186) dataset is a subset of the full National Statistics dataset that excludes these factors. To illustrate this discrepancy, the table below compares figures for annual CO₂ emissions from the NI 186 and complete National Statistics datasets.

APPENDIX TABLE C.2 COMPARISON OF NI 186 AND DFT ESTIMATES OF ANNUAL CO₂ EMISSIONS FROM ROAD TRAFFIC IN WEST YORKSHIRE, 2007 (TONNES)

	NI 186	DfT
City of Bradford	604,000	618,630

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	NI 186	DfT
Calderdale	276,000	436,910
Kirklees	455,000	727,520
City of Leeds	1,090,000	1,707,590
City of Wakefield	401,000	807,660
Total West Yorkshire	2,826,000	4,298,310

Sources: NI 186, Department for Transport

Climate Change

C2.6 In June 2009 the UK Climate Impacts Programme (UKCIP) published the latest generation of climate projections for the UK: UK Climate Projections 2009 (UKCP09). UKCP09 provides probabilistic projections for the UK's climate over the rest of the century and enables the user to specify projections based on high, medium and low emission scenarios at different spatial scales (e.g. national or administrative regions). The findings for West Yorkshire are specified in the table below:

APPENDIX TABLE C.3 CLIMATE PREDICTIONS FOR WEST YORKSHIRE BASED ON MEDIUM EMISSIONS SCENARIO

Change in...	2020s	2050s
Winter mean temperature	Central estimate of increase is 1.3°C; it is very unlikely to be less than 0.6°C and is very unlikely to be more than 2.1°C.	Central estimate of increase is 2.2°C; it is very unlikely to be less than 1.1°C and is very unlikely to be more than 3.4°C.
Summer mean temperature	Central estimate of increase is 1.3°C; it is very unlikely to be less than 0.5°C and is very unlikely to be more than 2.3°C.	Central estimate of increase is 2.3°C; it is very unlikely to be less than 1.1°C and is very unlikely to be more than 3.9°C.
Summer mean daily maximum temperature	Central estimate of increase is 1.7°C; it is very unlikely to be less than 0.5°C and is very unlikely to be more than 3.1°C.	Central estimate of increase is 3.1°C; it is very unlikely to be less than 1.2°C and is very unlikely to be more than 5.4°C.

Change in...	2020s	2050s
Summer mean daily minimum temperature	Central estimate of increase is 1.4°C; it is very unlikely to be less than 0.5°C and is very unlikely to be more than 2.5°C.	Central estimate of increase is 2.6°C; it is very unlikely to be less than 1.1°C and is very unlikely to be more than 4.4°C.
Annual mean precipitation	Central estimate of change is 0%; it is very unlikely to be less than -3% and is very unlikely to be more than 4%.	Central estimate of change is 0%; it is very unlikely to be less than -4% and is very unlikely to be more than 4%.
Winter mean precipitation	Central estimate of change is 4%; it is very unlikely to be less than -3% and is very unlikely to be more than 13%.	Central estimate of change is 11%; it is very unlikely to be less than 1% and is very unlikely to be more than 24%.
Summer mean precipitation	Central estimate of change is -8%; it is very unlikely to be less than -24% and is very unlikely to be more than 10%.	Central estimate of change is -19%; it is very unlikely to be less than -36% and is very unlikely to be more than 1%.

Local Air Quality

- C2.7 In general terms, high levels of air pollutants are experienced in residential properties in the immediate vicinity of busy roads. Every local authority is expected to monitor local air quality under the Environmental Act 1995. The objective of the monitoring is to determine if the National Air Quality Standards (AQs) will be exceeded. The European Commission 1996 directive Council Directive 96/62/EC on Ambient Air Quality Assessment and Management also requires European member countries to implement appropriate measures to improve air quality. It refers to specific EU directives on limiting and monitoring ambient air pollutants.
- C2.8 In those cases where the AQs are exceeded, local authorities are required to declare these areas as Air Quality Management Areas (AQMAs). Local Authorities are then required to produce an Air Quality Action Plan (AQAP). The AQAP will explain in more detail the current situation and put in place measures to improve conditions and work towards achieving the Government’s objectives. There are currently 28 AQMAs in the West Yorkshire area, these are portrayed in the table following. 26 are related to road traffic emissions of NO₂

that exceed the annual average standard, and two have been declared because the daily PM10 standard has been exceeded.

APPENDIX TABLE C.4 AIR QUALITY MANAGEMENT AREAS IN WEST YORKSHIRE (2009)

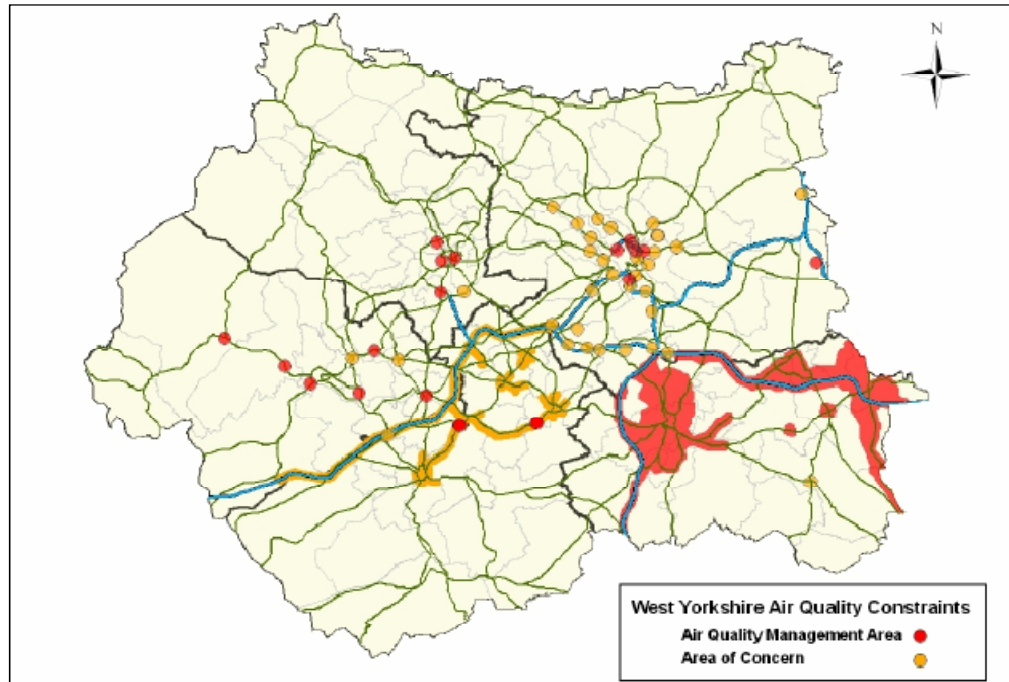
District	Number of AQMAs / reason
Bradford	4 for NO ₂
Calderdale	6 for NO ₂
Kirklees	1 for NO ₂ / 1 for PM10
Leeds	7 for NO ₂ / 1 for PM10
Wakefield	8 for NO ₂
West Yorkshire	26 for NO ₂ / 2 for PM10

C2.9 Nitrogen dioxide (NO₂) and suspended particles (PM₁₀) are the key air pollutants being considered in the ISA, because these pollutants are identified as being of particular concern with respect to compliance with the objectives in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland².

C2.10 There is currently only one NO₂ monitoring location in Leeds at Ebor Gardens. Concentrations of NO₂ recorded in 2008 were lower than the previous year but there was no clear overall trend between 2004 and 2008. Leeds remains the only District in West Yorkshire to have set an appropriate target for declared AQMAs. However over time as monitoring capabilities improve, further targets are likely to be set for other AQMAs. The figure following shows the location of key AQMAs and sites of concern in West Yorkshire.

² Department of the Environment *et al* (2007) - The Air Quality Strategy for England, Scotland, Wales and Northern Ireland - Table 2, pp.20-22, The Stationery Office, Norwich.

APPENDIX FIGURE C.3 LOCATION OF AIR QUALITY MANAGEMENT AREAS AND AREAS OF CONCERN IN WEST YORKSHIRE



C2.11 Road transport emissions of NO₂ and PM₁₀, have been predicted for the West Yorkshire trunk / principal road network, taking account of the observed annual traffic growth for all road types in each District and actual traffic count data on the Motorway network. The following table provides a summary of predicted road transport emissions for the West Yorkshire trunk/principal road network. This indicates that emission rates for NO₂ and PM₁₀ continue to fall across West Yorkshire, and appear to show a long term reduction in emissions from the base year. This may be due to improvements in engine efficiency and abatement technologies.

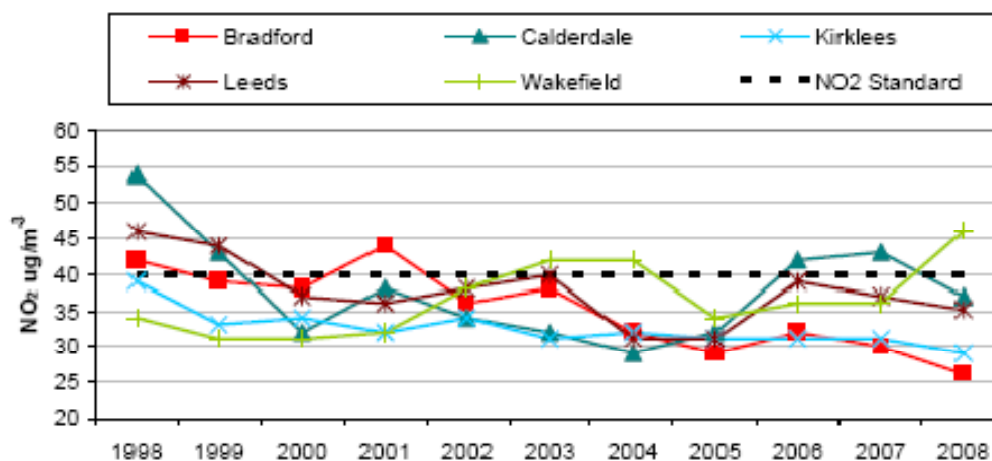
APPENDIX TABLE C.5 SUMMARY OF ANNUAL LOCAL AIR POLLUTANT EMISSIONS FROM ROAD TRANSPORT IN WEST YORKSHIRE 2004-08 (TONNES)

Year	Oxides of Nitrogen (NO ₂)	Particles (PM ₁₀)
2004	15,186	453
2005	14,384	435
2006	13,359	398
2007	12,453	357
2008	11,604	320

(Source - EDB)

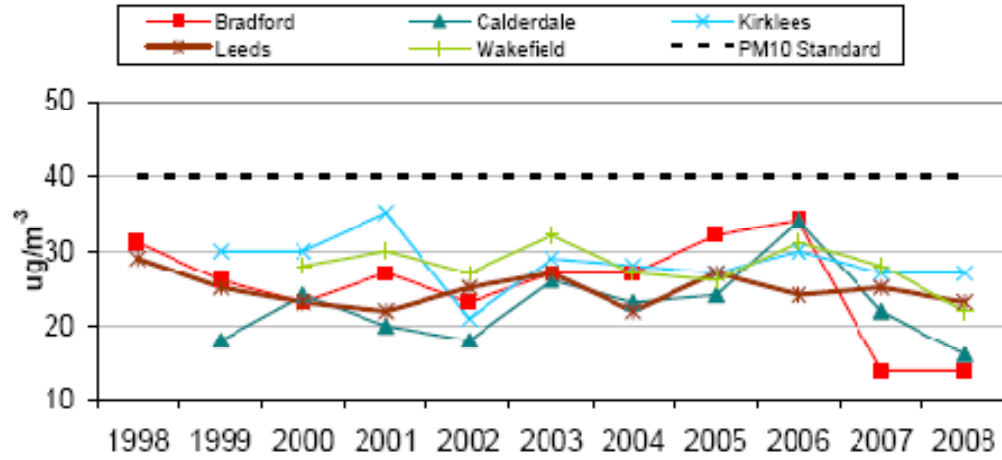
C2.12 There has been a general trend of improving urban background NO₂ between 1998 and 2005. In 2006 there was no significant increase in NO₂ levels apart from in Kirklees. The figure following indicates there were no clear trends between 2005 and 2008, although all districts excluding Wakefield recorded a decrease in concentrations in 2008 than the previous year.

APPENDIX FIGURE C.4 MONITORED ANNUAL AVERAGE NO₂ LEVELS IN URBAN AREAS IN WEST YORKSHIRE 1998-2008



C2.13 All Districts in West Yorkshire comply with the annual average PM₁₀ standard of 40µg/m³. However, the long-term trend in PM₁₀ levels is unclear and there was little change in background levels over the period 2002-6. 2007 saw a general reduction in PM10 levels across West Yorkshire, with recorded levels similar to those recorded in 2004. Figures recorded in 2008 indicated that PM₁₀ levels across West Yorkshire continue to decrease as illustrated in the following figure.

APPENDIX FIGURE C.5 MONITORED ANNUAL AVERAGE PM₁₀ LEVELS IN URBAN AREAS IN WEST YORKSHIRE 1998-2008

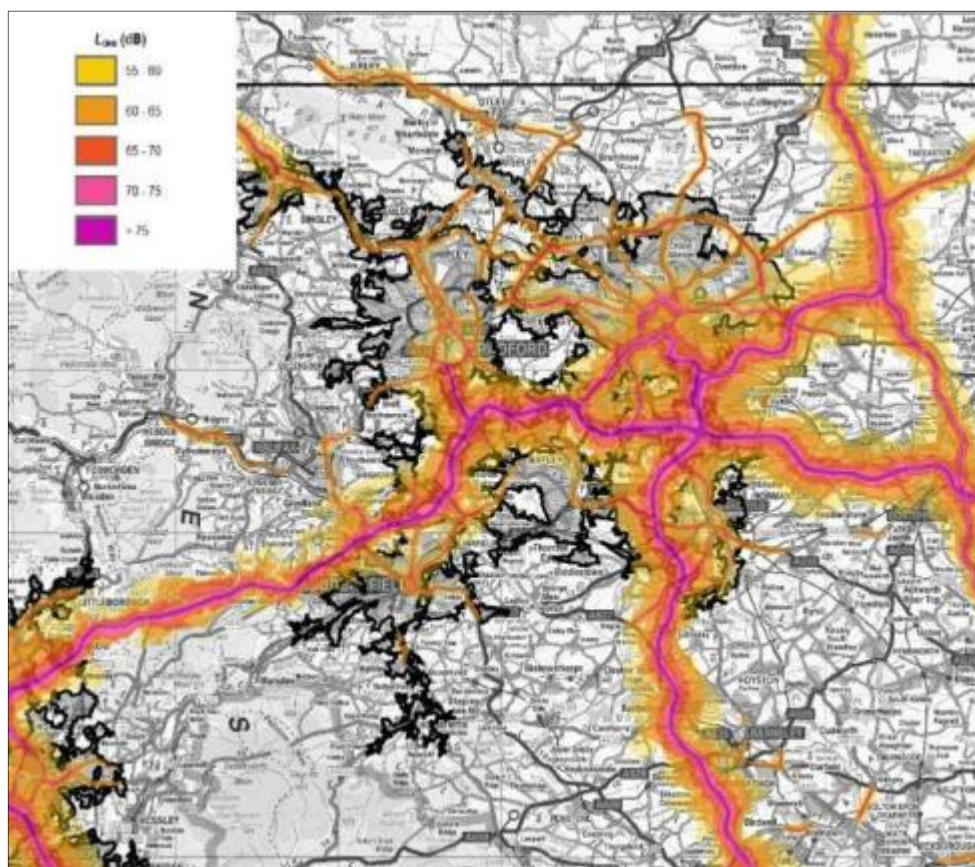


Noise

C2.14 In common with most urban areas in the UK, road traffic is the primary source of environmental noise experienced in West Yorkshire. The following figure indicates the levels of noise calculated in the area, expressed using the “day, evening, night level” (L_{den}) measure³.

³ L_{den} is a logarithmic composite of the L_{day}, L_{evening}, and L_{night} levels but with 5 dB(A) being added to the L_{evening} value and 10 dB(A) being added to the L_{night} value

APPENDIX FIGURE C.6 ROAD TRAFFIC NOISE IN WEST YORKSHIRE



Source: DEFRA Noise Mapping, ©Crown Copyright 2008.

- C2.15 From this it may be seen that many areas of West Yorkshire already experience high levels of traffic noise, principally associated with the motorway and trunk road networks.
- C2.16 The LTP2 mid-term progress report (2009)⁴ indicates that approximately 65% of the West Yorkshire population are exposed to noise levels above the WHO⁵ guideline levels⁶. The report also provides number of low noise asphalt laid in the last decade. Since 2000 around 680 km of ‘low noise’ asphalt have been laid in West Yorkshire. Of these only 273 km have been laid in the last four years including 7km of motorway network and just 68 km laid last year.
- C2.17 Leeds is the district with most km of low noise asphalt laid since 2004 (approx 105 km), followed by Bradford and Kirklees with 78km

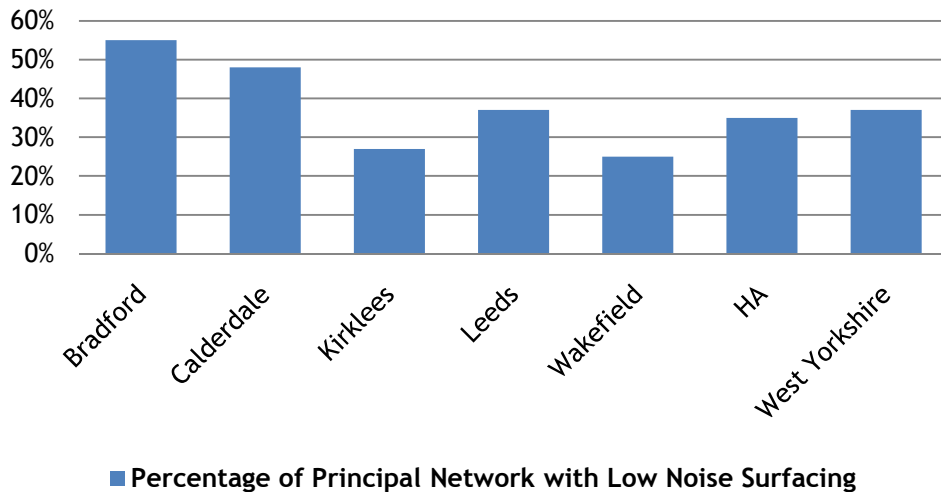
⁴ West Yorkshire LTP2 - Monitoring report 2009.

⁵ World Health Organisation.

⁶ In terms of the WHO Guidelines, this means that 65% of the population are apparently exposed to night-time external noise levels of 40 dB or more which may lead to adverse health effects, and vulnerable groups are more severely affected. However, it is not possible on the basis of the available evidence to express this in terms of specific quantified effects.

and 70 km respectively. The following figure compares the actual lengths of ‘low noise’ asphalt laid within West Yorkshire to approximate percentage coverage of the principal road network within each district. It could be said that as an average 35% of the principal road network within West Yorkshire is now surfaced with low noise asphalt.

APPENDIX FIGURE C.7 % OF PRINCIPAL ROAD NETWORK WITH LOW NOISE SURFACING IN WEST YORKSHIRE



Source: WYTL P2 - monitoring report 2009

- C2.18 The West Yorkshire - Noise Action Plan (March 2010) - Noise from Road Traffic has been designed to address the management of noise issues and effects in the West Yorkshire agglomeration under the terms of the Environmental Noise (England) Regulations. These Regulations transpose Directive 2002/49/EC relating to the Assessment and Management of Environmental Noise. This directive is commonly referred to as the Environmental Noise Directive (END).
- C2.19 The analysis described in the West Yorkshire Action Plan has identified the approximate number of dwellings and locations in this agglomeration⁷ to be investigated to determine what measures, if any, might be taken in order to assist the management of environmental noise in the context of Government policy on sustainable development.

⁷ A first round agglomeration has been defined as a large urban area with a population of over 250,000 and a population density of more than 500 persons per square kilometre.

C2.20 A summary of the results of the noise mapping, including an evaluation of the estimated number of people exposed to road traffic noise are presented in the following table. These are the number of people and dwellings (rounded to the nearest thousand) exposed above various noise levels from the strategic mapping of road traffic noise in this agglomeration:

APPENDIX TABLE C.6 PEOPLE EXPOSED TO ROAD TRAFFIC NOISE IN WEST YORKSHIRE

Noise Level	(L _{den}) (dB)		(L _{night}) (dB)		(L _{A10,18h}) (dB)	
	No. of dwellings	No of People	No. of dwellings	No of People	No. of dwellings	No of People
≥50			266,000	603,000		
≥55	502,000	1,148,000	47,000	103,000	518,000	1,186,000
≥60	203,000	457,000	17,000	36,000	237,000	537,000
≥65	41,000	89,000	2,000	3,000	44,000	97,000
≥70	14,000	30,000	<500	<500	19,000	41,000
≥75	1,000	2,000			2,000	3,000

Source: Noise Action Plan for the West Yorkshire Agglomeration (2010)

C2.21 The following table shows the approximate number of dwellings and associated population to be investigated for potential action with respect to road traffic noise in this agglomeration for any relevant local authority that is wholly or partly within this agglomeration.

APPENDIX TABLE C.7 DWELLINGS AND PEOPLE TO BE INVESTIGATED FOR ACTION TO REDUCE ROAD TRAFFIC NOISE IN WEST YORKSHIRE

Local Authority area	First Priority Locations		Important Areas	
	Number of Dwellings	Associated Population	Number of Dwellings	Associated Population
Bradford	200	400	2,550	5,600
Calderdale	<50	< 100	350	800
Kirklees	200	300	2,350	4,900
Leeds	400	900	3,500	7,900
Wakefield	< 50	< 100	650	1,300
Total	850	1,800	9,450	20,600

Source: Noise Action Plan for the West Yorkshire Agglomeration (2010)

C2.22 The estimated number of people and dwellings (rounded to the nearest thousand) exposed above various noise levels from the strategic mapping of railway noise in this agglomeration is shown in the table below:

APPENDIX TABLE C.8 PEOPLE EXPOSED TO RAILWAY NOISE IN WEST YORKSHIRE

Noise Level	(Lnight) (dB)		(LAeq, 18h) (dB)	
	Number of Dwellings	Number of people	Number of Dwellings	Number of people
≥50	4,000	8,000	5,000	10,000
≥55	1,000	2,000	2,000	4,000
≥60	< 500	< 500	< 500	< 500
≥65	< 500	< 500	< 500	< 500
≥70	0	0	0	0
≥75				

Source: Noise Action Plan for the West Yorkshire Agglomeration (2010)

C2.23 The following table shows the approximate number of dwellings and associated population to be investigated for potential action with respect to railway noise in this agglomeration.

APPENDIX TABLE C.9 DWELLINGS AND PEOPLE TO BE INVESTIGATED FOR ACTION TO REDUCE RAILWAY NOISE IN WEST YORKSHIRE

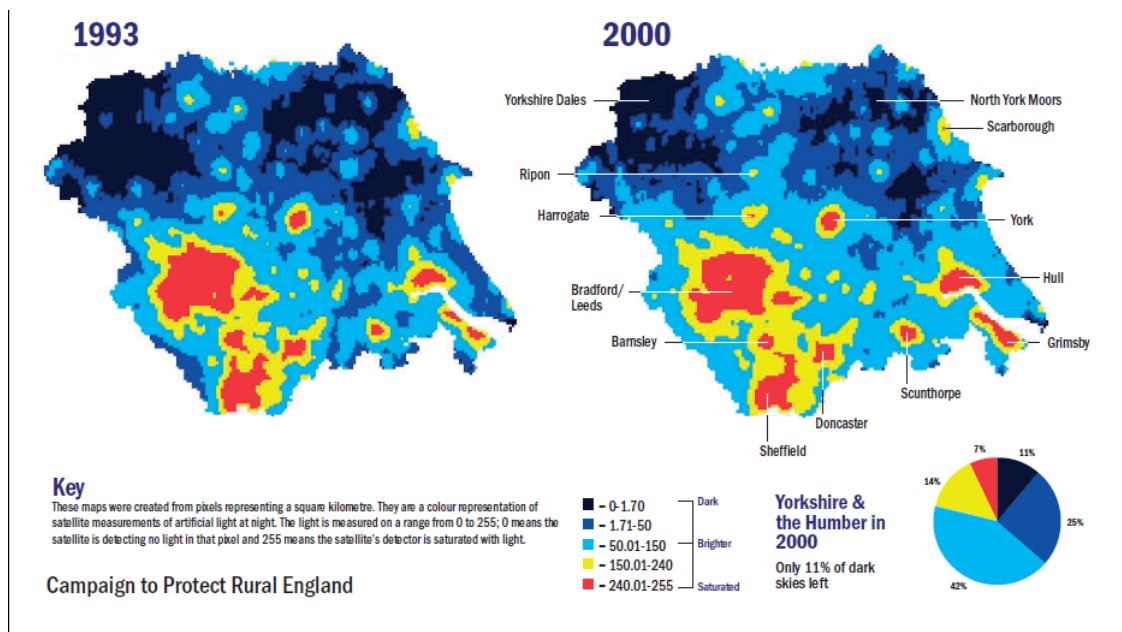
Local Authority area	First Priority Locations		Important Areas	
	Number of Dwellings	Associated Population	Number of Dwellings	Associated Population
Bradford	0	0	100	200
Calderdale	0	0	< 50	< 100
Kirklees	0	0	< 50	< 100
Leeds	0	0	< 50	< 100
Wakefield	0	0	< 50	< 100
Total	0	0	200	400

Source: Noise Action Plan for the West Yorkshire Agglomeration (2010)

Light Pollution

C2.24 The Campaign to Protect Rural England warn that "light pollution is rapidly increasing across this country." Data for this is not current but CPRE state that between 1993 and 2000 light pollution increased 24% nationally, as demonstrated in figure on the following page. Light pollution is caused by poor interior and exterior lighting design (including street and road lights), security lights and floodlights.

APPENDIX FIGURE C.8 LIGHT POLLUTION IN YORKSHIRE & THE HUMBER (1993 AND 2000)

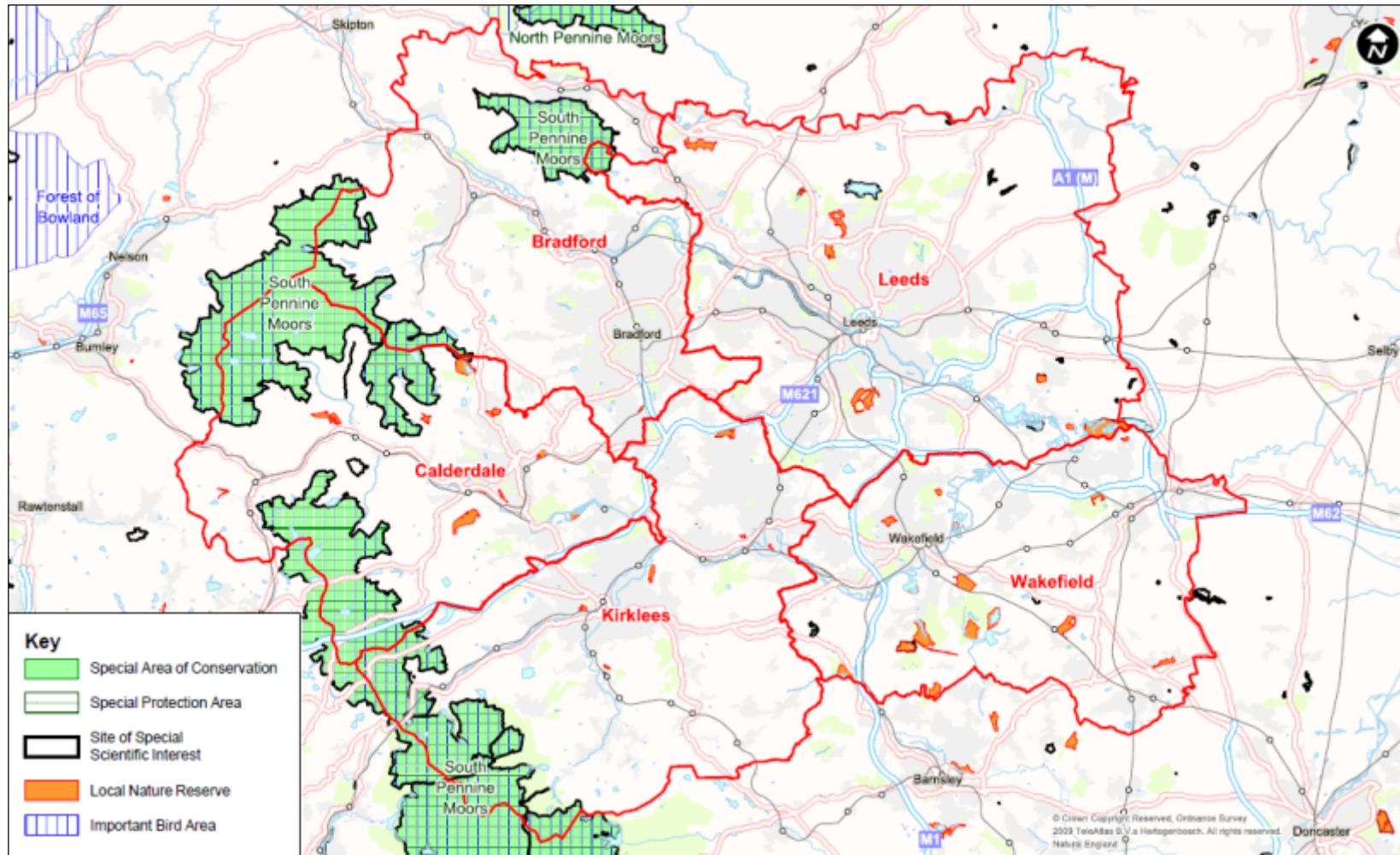


Source: Campaign to Protect Rural England

Biodiversity, Flora and Fauna

C2.25 The figure on the following page identifies the key areas of protection for biodiversity flora and fauna in West Yorkshire:

APPENDIX FIGURE C.1 KEY ENVIRONMENTAL CONSTRAINTS IN WEST YORKSHIRE



- C2.26 32 sites in West Yorkshire have been designated as SSSIs⁸ 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 Government target (95%).
- C2.27 In Bradford, the Sustainability Appraisal of the LDF⁹ identified the quality and variety of the landscape as a key resource for the area. There are 4 levels of designated nature conservation sites within Bradford District. In addition to the 4 SSSIs, there are 21 Sites of Ecological or Geological Importance and 16 Regionally Important Geological / Geomorphological Sites (RIGS). One of these SSSIs, the South Pennine Moors, represented by Rombalds Moor and Haworth Moor has been designated a Special Protection Area (SPA) due to the importance of its breeding bird populations. It is also a Special Area of Conservation (SAC), under the European Habitats Directive because it contains habitats which are rare or threatened within a European context. There are also 152 sites of local nature conservation value, designated for both biodiversity interest and community benefits.
- C2.28 In Wakefield, the Sustainability Appraisal for the LDF¹⁰ identified protected sites covering just 2% of the District. There is a Special Area of Conservation (SAC) ‘*Denby Grange Colliery Ponds*’, an 18.53ha site primarily designated for its important population of great crested newts, and 6 Sites of Special Scientific Interest (SSSIs). Of these, three are in a favourable condition, two have areas in both favourable and unfavourable conditions and one (Nostell Brick Yard) has been destroyed by a landfill site. There are also 24 Sites of Scientific Interest (SSIs), 10 Local Nature Reserves, and 86 ‘Wakefield Nature Areas’, locally designated for their nature conservation value. The majority of the protected sites are in the southwest of the District or along the River Calder corridor to the east and north of Wakefield City. Woodland cover in the District is just 3.8%, compared to the national figure of 10.5%. The majority of woods in the District are in the south and west of the District. The woods in the west of the District form part of the strip of oak-birch

⁸ Sites of Special Scientific Interest

⁹ Bradford MDC (2007) - Sustainability Appraisal: Local Development Framework - Draft Scoping Report .

¹⁰ Wakefield MDC (2006) - Sustainability Appraisal of the Core Strategy and Development Control Policies - Preferred Options.

woodland running up the side of the Pennines. Ancient woodlands are few in number making them all the more important. They may be particularly vulnerable due to disturbance by cultivation or drainage. The district has Biodiversity Action Plans for 12 habitats and species.

C2.29 Specifically in relation to the requirements of the Habitats Directive, and the potential need for an Appropriate Assessment under the Habitats Regulations, the following table indicates the European and Ramsar sites that are situated within West Yorkshire and depending on the policies contained within the LTP may potentially be directly or indirectly impacted by it.

APPENDIX TABLE C.1 HABITATS DIRECTIVE SITES IN WEST YORKSHIRE

Area	Brief Description
Denby Grange Colliery Ponds Special Area of Conservation (SAC)	Denby Grange Colliery Ponds (in Wakefield district) qualifies under Annex II of the Habitats Directive for supporting great crested newts (<i>Triturus cristatus</i>) in a pond created by coal mining activity and surround by wooded slopes.
South Pennine Moors SAC	The South Pennine Moors (spanning Barnsley, Kirklees and Calderdale districts) qualifies under Annex I of the Habitats Directive for supporting the habitat types Northern Atlantic wet heaths with <i>Erica tetralix</i> ; European dry heaths; Blanket bogs; Transition mires and quaking bog; Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles.
South Pennine Moors Phase 2 Special Protection Area (SPA)	The South Pennine Moors (spanning Barnsley, Kirklees and Calderdale districts) qualifies under Article 4.1 of the Birds Directive for supporting breeding short-eared owl (<i>Asio flammeus</i>), merlin (<i>Falco columbarius</i>) and golden plover (<i>Pluvialis apricaria</i>) and Article 4.2 for supporting an internationally important assemblage of breeding birds.
Peak District Moors (South Pennine Moors Phase 1) SPA	The Peak District Moors (in Bradford and Calderdale districts) qualifies under Article 4.1 of the Birds Directive for supporting breeding short-eared owl (<i>Asio flammeus</i>), merlin (<i>Falco columbarius</i>) and golden plover (<i>Pluvialis apricaria</i>).

C2.30 Also, the following table identifies the European and Ramsar sites are situated adjacent to West Yorkshire and depending on the policies contained within LTP may potentially be indirectly impacted by it:

APPENDIX TABLE C.2 HABITATS DIRECTIVE SITES CLOSE TO THE BOUNDARIES OF WEST YORKSHIRE

Area	Brief Description
Kirk Deighton SAC	Kirk Deighton (approximately 350m from the Leeds City Council boundary) qualifies under Annex II of the Habitats Directive for supporting a breeding population of great crested newts in a large pond, set in a depression in grazed pasture.
Rochdale Canal SAC	Rochdale Canal qualifies under Annex II of the Habitats Directive for supporting floating water plantain (<i>Luronium natans</i>) in a botanically diverse waterplant community which also holds a wide range of pondweeds <i>Potamogeton spp.</i>
North Pennine Moors SAC	The North Pennine Moors qualifies under Annex I of the Habitats Directive for supporting the habitat types Northern Atlantic wet heaths with <i>Erica tetralix</i> ; European dry heaths; <i>Juniperus communis</i> formations on heaths or calcareous grasslands; Calaminarian grasslands of the <i>Violetalia calaminariae</i> ; Siliceous alpine and boreal grasslands; Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>); Blanket bogs; Petrifying springs with tufa formation (<i>Cratoneurion</i>); Alkaline fens; Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeospsietalia ladani</i>); Calcareous rocky slopes with chasmophytic vegetation; Siliceous rocky slopes with chasmophytic vegetation; and Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles. It also supports the Annex I habitat, species rich Nardus grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) and Annex II species, marsh saxifrage (<i>Saxifraga hirculus</i>).
North Pennine Moors SPA	The North Pennine Moors qualifies under Article 4.1 of the Birds Directive for supporting breeding hen harrier (<i>Circus cyaneus</i>), merlin (<i>Falco columbarius</i>) and peregrine falcon (<i>Falco peregrines</i>)

C2.31 The analysis of likely effects in these areas also has been based on a more comprehensive review of biodiversity in West Yorkshire, including information on:

- data on protected species and locally designated sites from West Yorkshire Ecology;
- data from the National Biodiversity Network (NBN Gateway nbn.org.uk).
- The Regional ‘State of the Natural Environment’ report on Yorkshire and the Humber for more data on SSSI condition,

Biodiversity Action Plans (BAPs) for terrestrial habitats, protected species, and areas of semi-natural habitats.

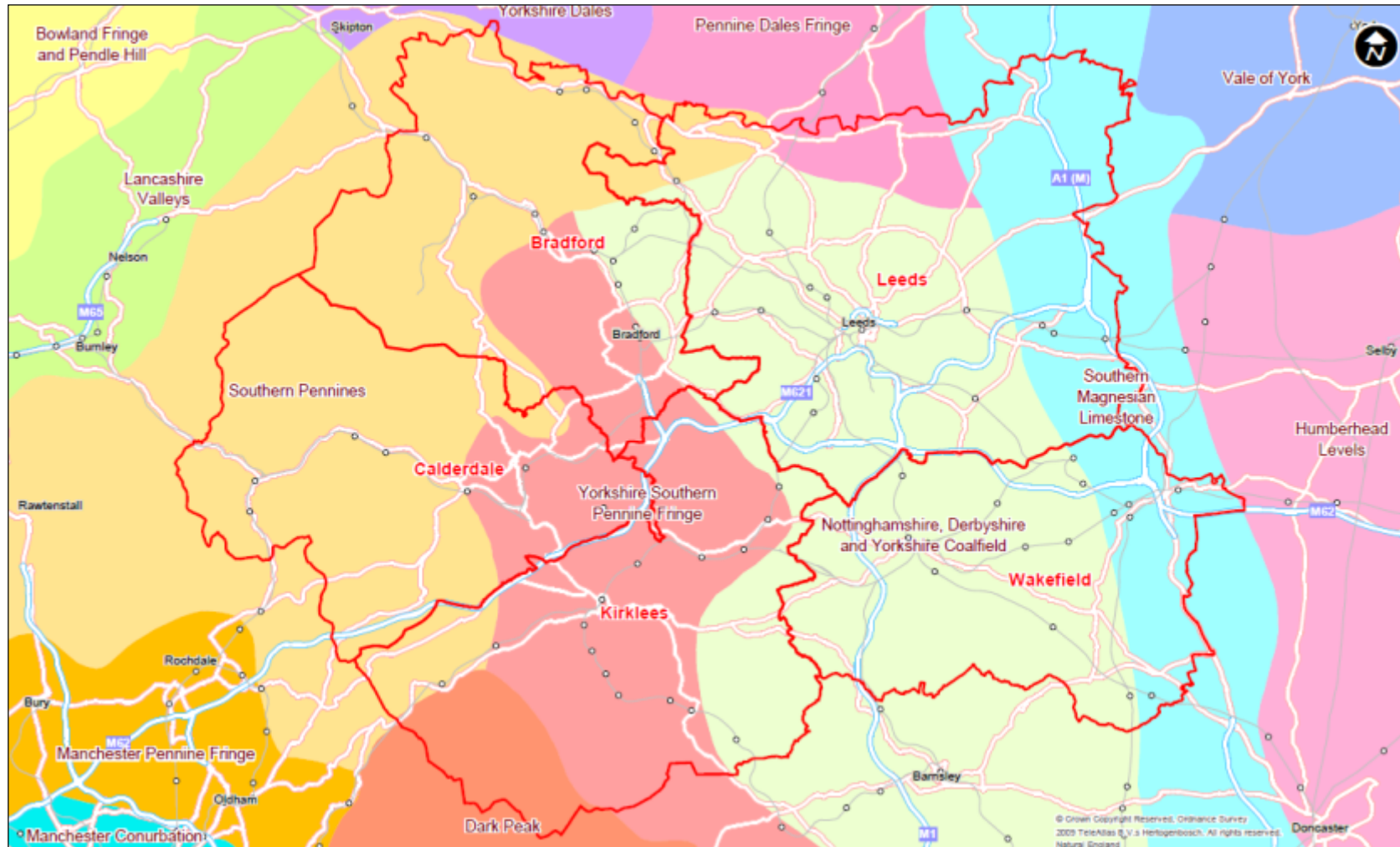
- Pressures and risks relating to climate change, invasive species and diseases, use and management of land and water courses, pollution identified by Natural England and others.

Landscape and Townscape

C2.32 The landscape character of West Yorkshire, as defined using Natural England's Countryside Character descriptions¹¹, is illustrated in the figure on the following page.

¹¹ Countryside Commission (2004) - *Countryside Character: The Character of England's Natural and Man-Made Landscape* - Volume 3: Yorkshire & The Humber.

APPENDIX FIGURE C.1 LANDSCAPE CHARACTER AREAS IN WEST YORKSHIRE



- C2.33 The western part of the sub-region, including most of Calderdale and Bradford districts, and small parts of Kirklees and Leeds districts, falls within the Southern Pennines area. This area is typified by large scale sweeping landforms with an open character created by exposed gritstone moors at an altitude of 400-450m, deeply trenched by narrow valleys and wooded cloughs. There are also patches of mixed moorland and blanket bog with enclosed pasture of varying qualities at lower elevations, largely defined by drystone walls. The area is home to some valuable wildlife habitats on the open moorland and the moorland fringe including semi-natural boggy mires, acid flashes and wooded cloughs. The valley bottoms are densely populated, with stone buildings extending along valley sides, set against the backdrop of the moorland tops. The area also affords extensive views from elevated locations in all directions.
- C2.34 East of here, most of the rest of Calderdale, Kirklees and Bradford districts come within the Yorkshire Southern Pennine Fringe. The eastern slopes of the Pennines drop from upland in the west down to the east, dissected by numerous steep-sided valleys. The area is characterised by a predominance of local sandstone and 'gritstone' as a building material, notably in large and dominant industrial buildings. The urban areas are mainly confined by valleys creating dramatic views between settlements and the surrounding hillsides. The predominant non-urban land use is pastoral farming with strong linear patterns of walled enclosures on plateaux. The rest of the area is covered with predominantly broadleaved woodlands on steep valley sides forming important backdrops to the urban areas, and this provides an impression of a well wooded landscape even though tree cover is relatively sparse overall.
- C2.35 The larger part of the Leeds and Wakefield districts, together with parts of Bradford and Kirklees districts fall within the 'Nottinghamshire, Derbyshire and Yorkshire Coalfields' character area. This is characterised by widespread evidence of industrial activity including mine buildings, former spoil tips, and iron and steel plants. The area has a complex mix of built-up areas, industrial land, dereliction and farmed open country. Many areas are affected by urban fringe pressures creating fragmented and downgraded landscapes, however there are substantial areas of intact agricultural land in both arable and pastoral use.

C2.36 The eastern parts of Leeds and Wakefield Districts come 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, reflecting the fertility of the area, characterised by large fields bounded by low cut thorn hedges creating a generally large scale, open landscape. 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. The widespread use of creamy white Magnesian Limestone as a building material often combined with red clay pantile roofing is a unifying visual element in the area.

Natural Character Areas

C2.37 England has been divided into 159 areas with similar landscape character, which are called National Character Areas (NCAs). Natural England provides a description of the NCAs and those relevant to West Yorkshire are set out below:

- **NCA 36: Southern Pennines.** The Southern Pennines lie between the northern edge of the Peak District National Park and the southern boundary of the Yorkshire Dales National Park, and between the conurbations of Lancashire and Greater Yorkshire to the west and West Yorkshire to the east. 7% of the area is defined as urban, 59% is under agriculture and 4% is woodland. Most of the Southern Pennines are underlain by Millstone Grit. Layers have eroded at different rates, creating a distinctive terraced landscape, with woodland is concentrated in a number of steepside valleys. The main agricultural use is sheep grazing and stone walls enclose small to medium sized fields. Many settlements are of industrial origin, deriving power from rivers for the textile industry. Mineral working and engineering led to the further expansion of settlements such as Keighly.
- **NCA37: Yorkshire Southern Pennine Fringe.** This is a transitional area lying along the eastern flanks of the Southern Pennines, extending between Bradford and Sheffield. About 37% of the area is defined as urban, 66% is under cultivation and 8% is woodland. Rivers are a formative feature in the landscape and have cut the narrow valleys that dissect the hills. This constraining landform influence, together with the early influence of transport by canal

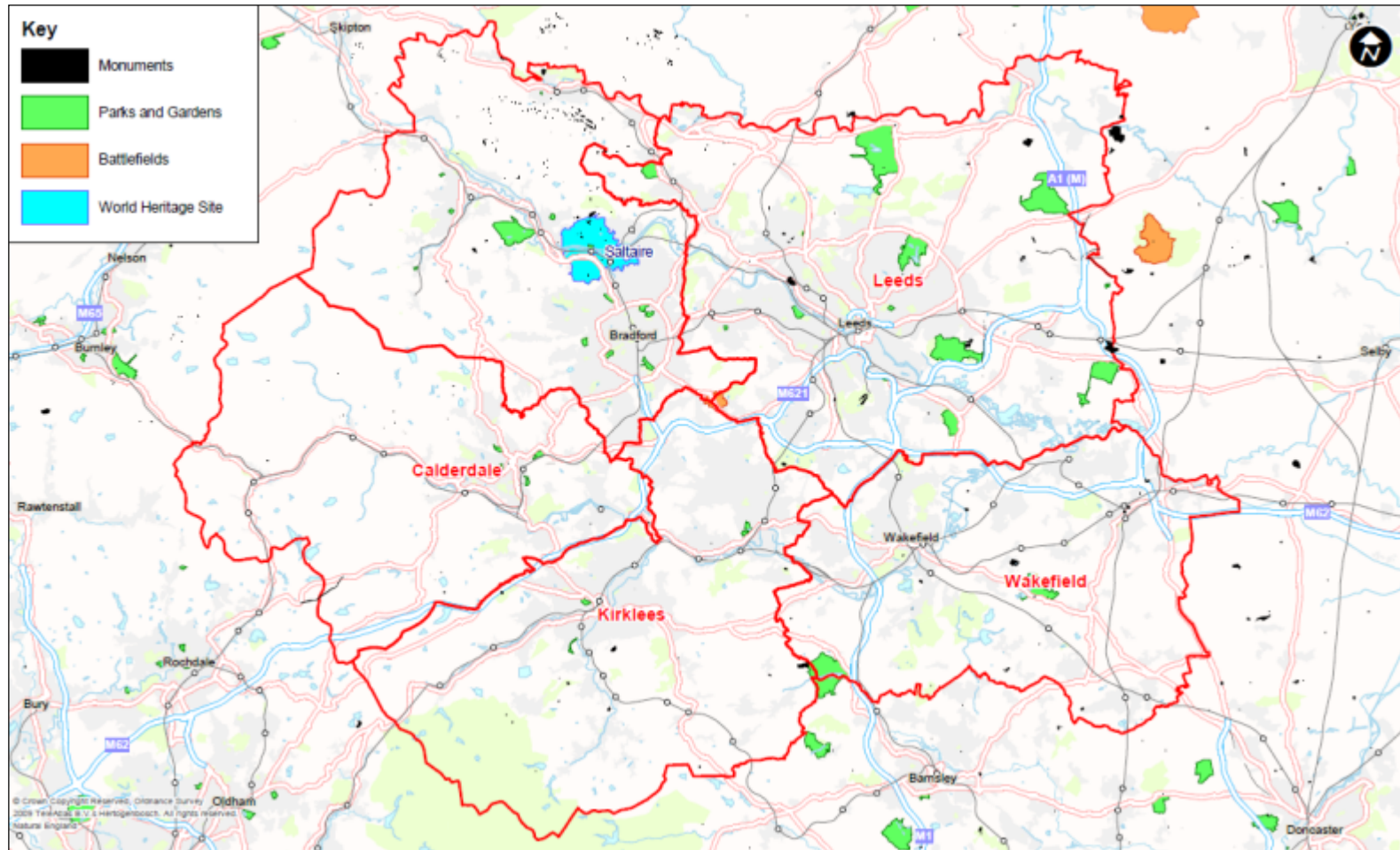
and rail, resulted in a linear pattern of development within the valleys and larger industrial centres such as Bradford, Sheffield and Huddersfield. Much of the area is significantly influenced by urban areas, with transport infrastructure, residential areas, industry and quarries present in most parts of the area.

- I NCA 30: Southern Magnesian Limestone.** Comprising an elevated ridge with smoothly rolling landform, this area is dissected by dry valleys of predominantly Magnesian Limestone geology. It extends in a narrow band nearly the length of the Yorkshire and Humber region from near Bedale into Derbyshire. 11% of the area is urban, 7% is woodland, 73% is cultivated. The settlement pattern varies from large scattered farmsteads and small nucleated villages to larger towns on the plateau. The area is more heavily settled near Nottingham, where there is also a greater intensity of industrial activity. Limestone quarrying influences the landscape, especially in the central and southern parts of the ridge.
- I NCA 38: Nottinghamshire, Derbyshire and Yorkshire Coalfield.** This is an extensive tract of countryside extending from Leeds in the north to the northern edges of Derby and Nottingham in the south. It has been significantly influenced by the pattern of industrial and urban development. 34% of the area is classed as urban, 41% is cultivated and 5% is woodland. The area lies outside national landscape designations but falls within the South Yorkshire Community Forest. Industrial development, much of it based on the exploitation of coal and steel, has had a profound influence on this landscape. There is widespread evidence of past and present industrial activity in the form of mine buildings, former spoil tips and iron and steel plants. In addition to major industrial areas such as Sheffield and the Lower Don Valley, there are many smaller mining and manufacturing settlements. The influence of large urban areas is evident in the retreat of farming in some areas. Transport routes, including motorways, add further urban influences to the surrounding landscape.

Heritage

- C2.38 The key heritage features of the WTLTP area are indicated in the figure on the following page:

APPENDIX FIGURE C.2 HERITAGE FEATURES IN WEST YORKSHIRE



- C2.39 The most important feature is the World Heritage Site at Saltaire near Bradford, which was designated by UNESCO in 2001. The area is a purpose-built "model" Victorian industrial village that was built in the nineteenth century by the Victorian philanthropist Sir Titus Salt, to provide self-contained living space for the workers at his woollen mills.
- C2.40 Bradford has over 5,800 buildings, listed by the Secretary of State as being of special architectural or historic interest, these range from large industrial mill complexes to weaver’s cottages and from agricultural farmsteads to stately halls and manor houses. There are also 56 Conservation Areas and a World Heritage Site.
- C2.41 In Wakefield, there are 23 Scheduled Ancient Monuments, 23 Grade I Listed Buildings, 60 Grade II* Listed Buildings and 663 Grade II Listed Buildings. There are 4 entries to English Heritage’s Buildings at Risk Register, 3 of which are Grade II* Listed and 1 is an unlisted scheduled monument. Wakefield has seen a fall in the number of Buildings at Risk, with 9 being on the list in 1999. There are 27 Conservation Areas in Wakefield, together with 3 registered historic parks and gardens, and a locally designated site of a historic battle in the District.

Heritage Buildings at Risk

- C2.42 English Heritage’s Heritage at Risk programme aims to understand the overall state of England’s heritage by assessing a number of different components. They aim to identify the features that are facing the greatest pressures and threats and then assess how to mitigate those pressures, estimating the level of resources that are needed to ‘make safe’ the UK’s legacy of historic places.
- C2.43 The 2010 Heritage at Risk Register includes conservation areas at risk as well as Grade I and II listed buildings, scheduled monuments, registered parks and gardens, registered battlefields and protected wreck sites. The number of heritage at risk sites in the different West Yorkshire districts is shown in table below.

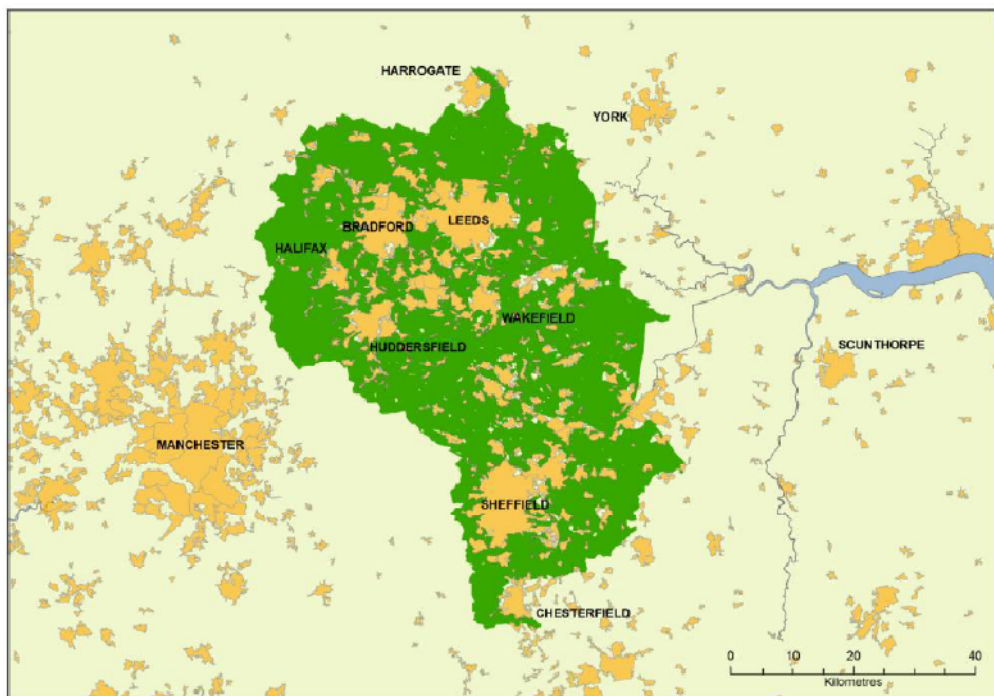
APPENDIX TABLE C.1 NUMBER OF HERITAGE SITES FOR WEST YORKSHIRE DISTRICTS

District	Bradford	Leeds	Wakefield	Kirklees	Calderdale
No. of heritage at risk sites	32	31	10	13	19

Green Belts

- C2.44 Green belt land is that which has not previously been developed and which has no right of public use. The designation of green belt land aims to prevent urban spreading, in order to maintain the more open areas that are largely undeveloped. Each local authority designates its own green belt. The majority of land between the main urban areas of West Yorkshire is designated as green belt, including that surrounding the Leeds conurbation.
- C2.45 A joint report by the Campaign to Protect Rural England and Natural England states that 248,241 hectares in South and West Yorkshire is designated as Green Belt (out of a total area of 1.6 million hectares of Green Belt in England). A portion of this Green Belt forms part of the buffer zone that protects views of the Saltair World Heritage Site in Bradford. The following figure shows the designated Green Belts in this area. 6.4% of the Green Belt in the South and West Yorkshire region, or 15,805 hectares, is open access land; the highest amount and proportion of open access land of any Green Belt in England. The Green Belts also had 510 serious pollution incidents between 2001 and 2008, the highest number of any Green Belt and 6% of the national total.

APPENDIX FIGURE C.3 GREEN BELTS IN SOUTH AND WEST YORKSHIRE

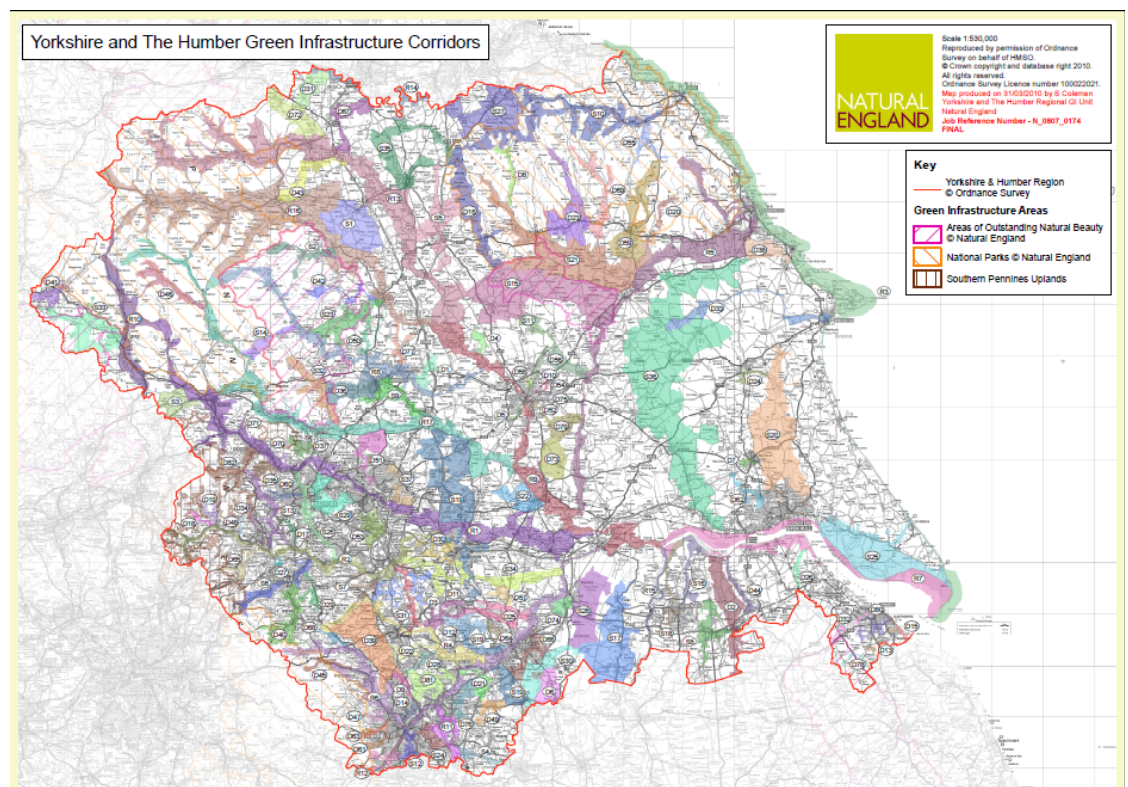


Source: CPRE and Natural England fact sheet (2010)

Green Infrastructure Corridors

C2.46 A number of corridors in West Yorkshire have been defined as Green Infrastructure Corridors, as required by the Regional Spatial Strategy core policy YH8 which instructed local authorities to define corridors and networks of green infrastructure, to identify their functions and develop policies to protect and create new green infrastructure through their Local Development Frameworks (LDFs). One of the project aims is to establish a baseline of green infrastructure from which change can be measured. The figure below maps Green Infrastructure Corridors in the Yorkshire and Humber region. This map was produced by the local authorities in partnership with Natural England, which has been responsible for ensuring a consistent approach was taken to green infrastructure mapping in such projects across the country.

APPENDIX FIGURE C.1 YORKSHIRE AND HUMBER GREEN INFRASTRUCTURE CORRIDORS



Registered Parks and Gardens

C2.47 The English Heritage 'Register of Historic Parks and Gardens of special historic interest in England', established in 1983, currently

identifies over 1,600 sites in West Yorkshire that have been assessed to be of national importance.

Green Flag Awards for Parks

C2.48 The Green Flag Award scheme is the benchmark national standard for parks and green spaces in England and Wales. It was first launched in 1996 to recognise and reward the best green spaces in the country. The number of awards for each individual district is presented in the table below.

APPENDIX TABLE C.1 NUMBER OF GREEN FLAG AWARDS FOR WEST YORKSHIRE DISTRICTS

District	Bradford	Leeds	Wakefield	Kirklees	Calderdale
No. of awards	5	8	2	1	6

Source: <http://www.keepbritaintidy.org/>

Material Assets

C2.49 The following following indicates transport fuel consumption in West Yorkshire:

APPENDIX TABLE C.1 ROAD TRANSPORT ENERGY CONSUMPTION, 2008 ('000s TONNES FUEL)

District	Buses	Diesel Cars	Petrol Cars	Motor cycles	Sub-Total	HGVs	Diesel LGVs	Petrol LGVs	Total Freight	Total
Bradford	9.5	29.4	85.7	0.9	125.6	19.4	21.5	1.6	42.5	168.1
Calderdale	4.8	19.7	47.4	0.4	72.3	28.7	14.5	1.0	44.2	116.5
Kirklees	7.6	33.7	80.3	0.7	122.4	44.5	25.7	1.8	72.0	194.4
Leeds	18.4	84.3	193.0	1.6	297.3	100.4	58.1	4.0	162.4	459.7
Wakefield	6.8	36.8	78.7	0.7	123.1	63.3	26.8	1.8	91.8	214.9
Total	47.2	203.9	485.1	4.4	740.7	256.2	146.5	10.1	412.9	1,153.5

C2.50 The condition of all classified roads in four out of the five West Yorkshire Districts are above average when compared nationally, as indicated in the following table:

APPENDIX TABLE C.2 PROPORTION OF ROADS IN GOOD CONDITION

Year	UK	Bradford	Calderdale	Kirklees	Leeds	Wakefield
2006/07	100%	103	103	93	97	109
2007/08	97%	111	100	93	103	107
2008/09	97%	109	101	95	102	n/a

C2.51 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

C2.52 West Yorkshire falls within the Humber River Basin Management Plan, within which water has played an important role in the growth of the cities and manufacturing industries. The main rivers within West Yorkshire comprise of the following:

- River Aire, which is the major river in Yorkshire and is approximately 70 miles long. Part of the river is canalised, and is known as the Aire and Calder Navigation. The Aire flows through the Bradford and Leeds districts;
- River Wharf, which flows through Bradford district;
- River Holme, which flows through Kirklees;
- River Laneshaw, which rises as Laneshaw Brook on the border between the counties of Lancashire and Yorkshire;
- Meanwood Beck which flows through Leeds into the River Aire in central Leeds; and
- River Worth, which is a tributary of the River Aire.

C2.53 There are fifteen district catchments within the Humber River Basin. Those which West Yorkshire falls within are the Aire and Calder Catchment and the Wharfe and Ouse Catchment.

C2.54 The Aire and Calder catchment covers an area from the Pennines and Yorkshire Dales to low-lying floodplains. It includes Bradford, Leeds, Huddersfield and Halifax where much of the former industrial land alongside the rivers is undergoing/has undergone regeneration.

There is an extensive canal network in the catchment, including the Leeds Liverpool Canal which is the longest in Britain.

C2.55 The Humber River Basin District Management Plan (Environment Agency, 2009) provides detail about the current condition of rivers and water bodies within the Aire and Calder catchment. The Table below sets out the current status with targets for 2015:

APPENDIX TABLE C.3 CURRENT CONDITION OF WATER BODIES IN THE AIRE AND CALDER CATCHMENT AND TARGETS FOR 2015

River and lake water bodies	Now	2015
% at good ecological status or potential	12%	12%
% assessed at good or high biological status	24%	28%
% assessed at good chemical status	83%	83%
% at good status overall (chemical and ecological)	12%	12%

C2.56 The Wharfe and Lower Ouse catchment covers an area from the North and South Pennine Moors and Yorkshire Dales National Park to the towns of Otley, Tadcaster and Selby. The greatest uses of water in the catchment are fish farming, public water supply, and industrial and commercial activities. The rivers are also used for recreation and leisure activities, including canoeing and angling.

C2.57 Details of the current condition of rivers and water bodies within the Wharfe and Ouse catchment, and targets for 2015, are set out below:

APPENDIX TABLE C.4 CURRENT CONDITION OF WATER BODIES IN THE WHARFE AND OUSE CATCHMENT AND TARGETS FOR 2015

River and lake water bodies	Now	2015
% at good ecological status or potential	14%	16%

River and lake water bodies	Now	2015
% assessed at good or high biological status	32%	35%
% assessed at good chemical status	50%	50%
% at good status overall (chemical and ecological)	14%	16%

- C2.58 The Humber River Basin District Management Plan states that “discharges from water industry storm systems and sewage works are key reasons for failures in the catchment.”
- C2.59 Urbanisation also has an impact on the status of the catchment’s rivers and lakes. Defra’s 2005 report on Soil Sealing outlines the adverse effects of covering the soil surface with impervious material which occurs whenever development takes place, such as building a new road. The impermeable surface prevents soils absorbing water and therefore increases surface runoff and flood risk. The increased rain water runoff in turn affects the water quality with added oils, heavy metals, pesticides and other chemicals that would otherwise have been absorbed and broken down by a soil substrate. More frequent occurrence of flash flooding also augments erosion along riverbanks and riparian habitats, and ultimately diminishes groundwater quality and supply as there is less opportunity for water to percolate through the soil.
- C2.60 There is little data available on soil sealing impacts in West Yorkshire. The European Environment Agency is currently working on a European soil sealing dataset but this has not yet been validated. However in 2004, the London Borough of Ealing’s Local Agenda 21 group funded a study on the effects of hard surfacing front gardens to provide off-street parking, which recognises the issue as a potentially serious environmental and social problem.
- C2.61 Little data is available on the quality and protection of soils within the Plan area, particularly with regard to transport impacts. However a proxy indicator of soil quality is the Agricultural Land Classification (ALC) which assesses the quality of farmland based on the assessment of climate, site and soil characteristics. The figure on the following page shows there is little high quality soil in the region.