

Local Transport Plan 2011-2026

Appendix E

Habitat Regulations Assessment Screening (Likely Significant Effects)



Revision Schedule

Habitat Regulations Assessment Screening (Likely Significant Effects) March 2011

Rev	Date	Details	Prepared by	Reviewed by	Approved by
01	18/03/11	Draft report for client comment	Dr James Riley Principal Ecologist		

This document has been prepared in accordance with the scope of Scott Wilson's appointment with its client and is subject to the terms of that appointment. It is addressed to and for the sole and confidential use and reliance of Scott Wilson's client. Scott Wilson accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided. No person other than the client may copy (in whole or in part) use or rely on the contents of this document, without the prior written permission of the Company Secretary of Scott Wilson Ltd. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document do not provide legal or tax advice or opinion.

© Scott Wilson Ltd 2010

URS Scott Wilson
Scott House
Basing View
Alencon Link
Basingstoke
RG21 7PP

Tel: 01256 310200
Fax 01256 310201

www.urs-scottwilson.com

Table of Contents

1	Introduction	4
1.1	This report	4
2	Methodology	6
2.2	The Process of HRA.....	7
2.3	Task One: Likely Significant Effect Test (Screening)	8
2.4	European sites covered by this HRA.....	9
3	Pathways of Impact and Scope	10
3.2	Air quality and European sites.....	10
3.3	Noise/lighting and European sites.....	15
3.4	Human disturbance	16
4	Likely Significant Effects	18
4.2	Other Plans and Projects	41
5	Conclusion.....	42

1 Introduction

1.1 This report

- 1.1.1 The Local Transport Plan (LTP) is a mechanism by which local transport authorities work with their stakeholders to strengthen their place-shaping role and their delivery of services to the community. The LTP should consider the transport needs of both people and freight and should aim to improve transport services as well as the maintenance, operation, management and best use of the assets necessary for transport delivery, within the context of tightening environmental constraints¹.
- 1.1.2 The Transport Act 2000² introduced a statutory requirement for local transport authorities to produce an LTP every five years and to keep it under review. The Local Transport Act 2008³ retains the statutory requirement to produce and review Local Transport Plans and policies. The Act requires that LTPs contain all of an authority's policies and delivery plans relating to transport, explaining how these contribute to the wider local agenda.
- 1.1.3 East Sussex County Council as a local transport authority has produced two Local Transport Plans, each covering a period of five years. The second Local Transport Plan (LTP2) runs to March 2011 and the third Local Transport Plan (LTP3) to run from April 2011 to March 2015 is subject of this assessment.
- 1.1.4 It is a requirement of Article 6 of the EC Habitats Directive 1992 and the Conservation of Habitats & Species Regulations 2010 (**Box 1**) that 'land use plans' (which would include local authority Local Transport Plans) are subject to an 'Appropriate Assessment' (AA) if it is likely that they will lead to significant adverse effects on a Natura 2000 site (Special Areas of Conservation, SACs, and Special Protection Areas, SPAs). As a matter of UK Government policy Ramsar sites⁴, candidate Special Areas of Conservation (cSAC) and proposed Special Protection Areas (pSPA) are given equivalent status.

¹ Department for Transport (2009). *Guidance on Local Transport Plans* [online] available at: <http://www.dft.gov.uk/adobe/pdf/165237/ltp-guidance.pdf> (accessed 16 June 2010)

² Available online at: http://www.opsi.gov.uk/acts/acts2000/ukpga_20000038_en_1 (accessed 16 June 2010)

³ Available online at: http://www.opsi.gov.uk/acts/acts2008/ukpga_20080026_en_1 (accessed 16 June 2010)

⁴ Wetlands of International Importance designated under the Ramsar Convention 1979

Box 1. The legislative basis for Appropriate Assessment

Habitats Directive 1992

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives.”

Article 6 (3)

Conservation of Habitats & Species Regulations 2010

“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives ... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”.

- 1.1.5 The Habitats Directive applies the precautionary principle to protected areas; plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This is in contrast to the Strategic Environmental Assessment (SEA) Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; it simply says that the assessment findings (as documented in the ‘environmental report’) should be ‘taken into account’ during preparation of the plan or programme. In the case of the Habitats Directive, potentially damaging plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation will be necessary to ensure the overall integrity of the site network.
- 1.1.6 As assessment of plans has developed, the term Habitats Regulations Assessment (HRA) has come into currency for describing the overall assessment process (including screening to determine whether significant adverse effects are likely or not) and this term is used below when necessary to distinguish the process from the ‘Appropriate Assessment’ stage itself.
- 1.1.7 Chapter 2 explains the process by which the HRA as a whole will be carried out. Chapter 3 explores the relevant pathways of impact and the criteria on which options within the LTP will be screened in or out of assessment. Chapter 4 details the screening exercise undertaken and the conclusions arrived at.

2 Methodology

- 2.1.1 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of adverse effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.
- 2.1.2 However, the draft CLG guidance⁵ makes it clear that when implementing HRA of land-use plans, the AA should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:
- 2.1.3 *“The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project.”*
- 2.1.4 In other words, there is a tacit acceptance that appropriate assessment can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers (**Figure 1**).
- 2.1.5 For an Local Transport Plan the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of significance of effects. For example, precise and full determination of the impacts and significant effects of a new settlement will require extensive details concerning the design of the town, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.
- 2.1.6 The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. In other words, the plan is never given the benefit of the doubt; it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon a European site unless it can be clearly established otherwise.

⁵ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

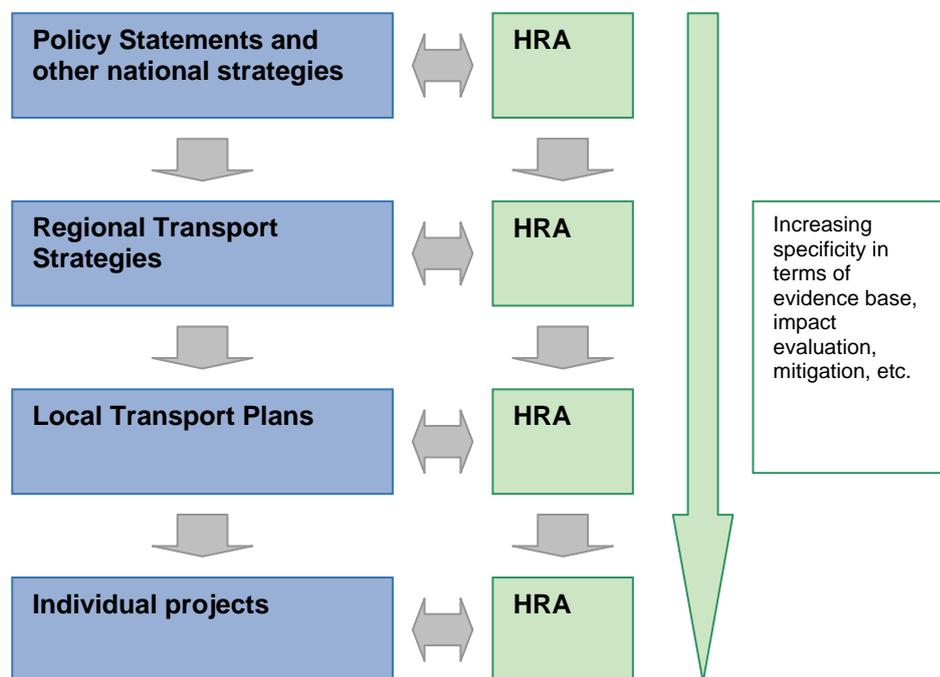


Figure 1: Tiering in HRA of Land Use Plans

2.2 The Process of HRA

- 2.2.1 The HRA is likely to be carried out in the continuing absence of formal UK Government guidance. CLG released a consultation paper on AA of Plans in 2006⁶. As yet, no further formal guidance has emerged.
- 2.2.2 **Figure 2** below outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.

⁶ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

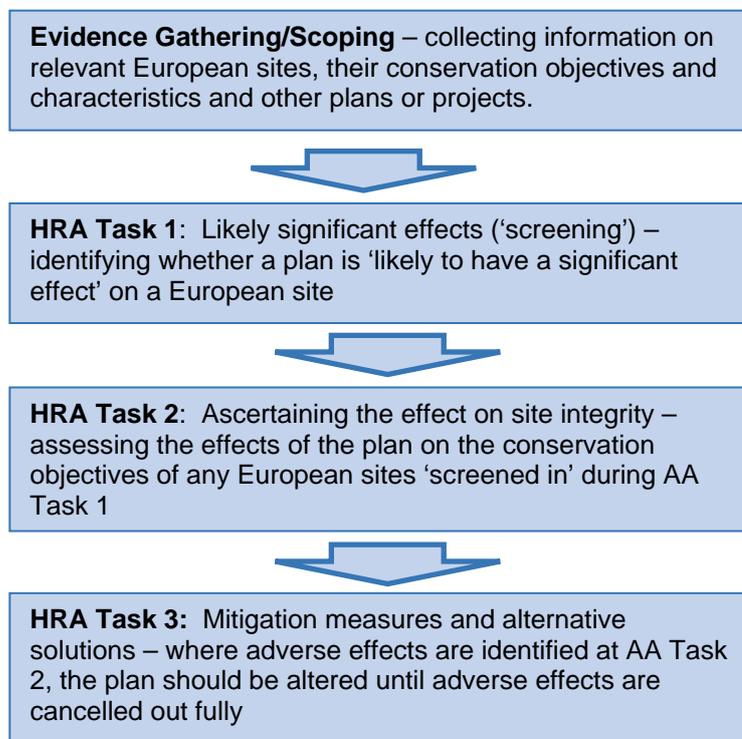


Figure 2: Four-Stage Approach to Habitat Regulations Assessment

- 2.2.3 In practice, we and other practitioners have discovered that this broad outline requires some amendment in order to feed into a developing land use plan such as a Local Transport Plan.

2.3 Task One: Likely Significant Effect Test (Screening)

- 2.3.1 The first stage of any Habitat Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a high level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:
- 2.3.2 *"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"*
- 2.3.3 The objective is to 'screen out' those plans and projects (or site allocations/policies) that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism or pathway for an adverse interaction with European sites.
- 2.3.4 The reasons for screening options in or out of assessment will be documented as will the physical scope of the HRA i.e. the specific European sites that will be considered within this assessment. The physical scope of the assessment i.e. the range of European sites to be considered will be based upon a combination of tracing impact pathways (e.g. from probable points of dewatering discharge to the downstream European sites that will be affected) and using distances derived from various studies e.g. 200m for consideration of local vehicle emission-related air quality impacts on European sites (taken from the Government's Transport

Analysis Guidance). We will also draw on any existing advice that the Council has received on this matter from Natural England.

2.4 European sites covered by this HRA

2.4.1 The initial scope of this HRA is considered to include all European sites in East Sussex:

- Ashdown Forest SAC – designated for its wet and dry heathland and its population of great crested newt;
- Ashdown Forest SPA – designated for its populations of Dartford warbler and nightjar;
- Lewes Downs SAC – designated for its calcareous grassland;
- Castle Hill SAC – designated for its calcareous grassland;
- Hastings Cliffs SAC – designated for its vegetated sea cliffs;
- Dungeness SAC – designated for its driftline vegetation, vegetated shingle and population of great crested newt;
- Dungeness to Pett Level SPA – designated for its breeding common tern, little tern and Mediterranean gull and for its passage/wintering populations of aquatic warbler, Bewick's swan and shoveler;
- Dungeness to Pett Level proposed Ramsar site – designated for the same interest features as the SPA and SAC; and
- Pevensey Levels Ramsar site – designated for its populations of aquatic plants and invertebrates.

2.4.2 There are currently proposals to create a new Special Protection Area (Dungeness, Romney Marsh and Rye Bay) encompassing the current Dungeness SAC and Dungeness to Pett Level SPA in addition to additional land parcels in the Rye Harbour area. Since this site has not yet been proposed formally to government there is no legal requirement to undertake HRA. However, we have included it within the scope of this HRA as a precaution.

3 Pathways of Impact and Scope

3.1.1 This section covers the various ways by which Local Transport Plans and initiatives can potentially result in significant effects on European sites.

3.2 Air quality and European sites

3.2.1 The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. However, traffic also makes a significant contribution. NO_x can have a directly toxic effect upon vegetation. In addition, greater NO_x or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

Table 2. Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO ₂ , NO _x and ammonia all contribute to acid deposition. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased N emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock geology, weathering rate and buffering capacity.
Ammonia (NH ₃)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO ₂ and NO _x emissions to produce fine ammonium (NH ₄ ⁺)- containing aerosol which may be transferred much longer distances (can therefore be a significant trans-boundary issue.) Catalytic converters on vehicles are also a significant and increasing source of ammonia and are now calculated to amount to about 10% of UK emissions, although this can rise to 70-80% of the total NH ₃ in urban centres. With regard to the effects on habitats and species, recent research ⁷ has shown that, because of its high deposition velocity, NH ₃ can contribute around half of the total N deposition within the first few metres of busy roadsides.	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH ₃ is rapidly deposited, some of the most acute problems of NH ₃ deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO _x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations,	Deposition of nitrogen compounds (nitrates (NO ₃), nitrogen dioxide (NO ₂) and nitric acid (HNO ₃)) can lead to both soil and freshwater

⁷ J.N. Cape, et al. 2004. Concentrations of ammonia and nitrogen dioxide at roadside verges, and their contribution to nitrogen deposition. Environmental Pollution 132 (2004) 469–478

Pollutant	Source	Effects on habitats and species
	one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	acidification. In addition, NO _x can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO _x and NH ₃ emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O ₃)	A secondary pollutant generated by photochemical reactions from NO _x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O ₃ above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide SO ₂	Main sources of SO ₂ emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO ₂ emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO ₂ acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

3.2.2 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. NO_x emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NO_x (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison⁸. Emissions of NO_x could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the Local Transport Plan.

3.2.3 According to the World Health Organisation, the critical NO_x concentration (critical threshold) for the protection of vegetation is 30 µgm⁻³; the threshold for sulphur dioxide is 20 µgm⁻³. In addition, ecological studies have determined 'critical loads'⁹ of atmospheric nitrogen deposition (that is, NO_x combined with ammonia NH₃) for key habitats within the European sites considered within this assessment.

3.2.4 The National Expert Group on Transboundary Air Pollution (2001)¹⁰ concluded that:

⁸ Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. <http://www.airquality.co.uk/archive/index.php>

⁹ The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

¹⁰ National Expert Group on Transboundary Air Pollution (2001) Transboundary Air Pollution: Acidification, Eutrophication and Ground-Level Ozone in the UK.

- In 1997, critical loads for acidification were exceeded in 71% of UK ecosystems. This was expected to decline to 47% by 2010.
 - Reductions in SO₂ concentrations over the last three decades have virtually eliminated the direct impact of sulphur on vegetation.
 - By 2010, deposited nitrogen was expected to be the major contributor to acidification, replacing the reductions in SO₂.
 - Current nitrogen deposition is probably already changing species composition in many nutrient-poor habitats, and these changes may not readily be reversed.
 - The effects of nitrogen deposition are likely to remain significant beyond 2010.
 - Current ozone concentrations threaten crops and forest production nationally. The effects of ozone deposition are likely to remain significant beyond 2010.
 - Reduced inputs of acidity and nitrogen from the atmosphere may provide the conditions in which chemical and biological recovery from previous air pollution impacts can begin, but the timescales of these processes are very long relative to the timescales of reductions in emissions.
- 3.2.5 Grice et al^{11 12} do however suggest that air quality in the UK will improve significantly over the next 15 years due primarily to reduced emissions from road transport and power stations.
- 3.2.6 Throughout the HRA we intend to work on the basis that an increase in rail usage means the potential for a decrease in cars and HGV's and is therefore a positive step for air quality. The Department of Transport have made the following comment on air quality issues as they relate to the transfer of freight movements from road to rail, which supports the approach we intend to take: *"It should be noted that in terms of total transport emissions, rail transport accounts for less than 1% of the total. Therefore, even with the most rail orientated transport options, perhaps doubling the rail kilometres, the potential for any significant impact on emissions will lie mainly with the saving in emissions from road transport brought about by modal transfer, rather than those generated by rail. Hence, it is suggested that emissions from rail sources can be scoped out in most cases"*¹³.

¹¹ Grice, S., T. Bush, J. Stedman, K. Vincent, A. Kent, J. Targa and M. Hobson (2006) Baseline Projections of Air Quality in the UK for the 2006 Review of the Air Quality Strategy, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.

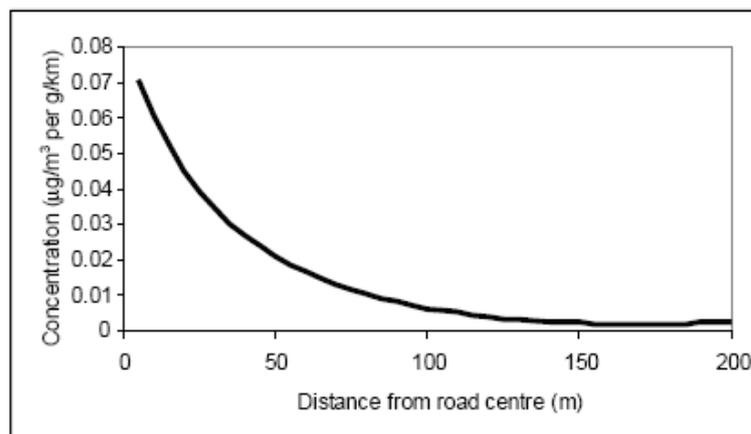
¹² Grice, S., J. Stedman, T. Murrells and M. Hobson (2007) Updated Projections of Air Quality in the UK for Base Case and Additional Measures for the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.

¹³ Department of Transport (2004). Transport Analysis Guidance: Regional Air Pollution.
www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf

Local air pollution

- 3.2.7 According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant"¹⁴.

Figure 3. Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)



- 3.2.8 This is therefore the distance that we use throughout the HRA in order to determine whether European sites are likely to be significantly affected by road development under the Local Transport Plan. Any airport or port schemes would of course require the use of different distance thresholds; however, port and airport expansions are outside the scope of the Local Transport Plan.

- 3.2.9 The following European sites in East Sussex lie within 200m of major roads, or roads identified as 'rat runs':

- Ashdown Forest SAC/SPA lies within 200m of the A22 and A26 in particular;
- Pevensey Levels Ramsar site is traversed by the A259;
- Parts of Lewes Downs SAC lie within 200m of the A26, although they are separated from the road by housing and other development which will reduce deposition distances.

Ashdown Forest

- 3.2.10 The current (2011) level of nitrogen deposition at the SAC/SPA according to the Site Relevant Critical Load available on APIS is 11.5 kg/N/ha/yr¹⁵ and the minimum critical load for the habitat present, wet and dry heathland, is 10 kg/N/ha/yr. Although Ashdown Forest is currently identified as being at risk from eutrophication this relates to agricultural runoff rather than atmospheric deposition. The site is therefore already exceeding its Critical Load.

Pevensey Levels Ramsar site

- 3.2.11 Pevensey Levels Ramsar site lies adjacent to the A259, which would provide the main access point for Little Standard Hill Farm clay works. The current level of nitrogen deposition at the

¹⁵ As of 18/03/11

Ramsar site (TQ678117) is 16.1 kg/N/ha/yr and the minimum critical load for the habitat present, grazing marsh, is 20kg/N/ha/yr.

- 3.2.12 Using a grid reference of TQ678117, the situation in 2000 according to www.apis.ac.uk (to a resolution of 5km)¹⁶ is depicted in the table below. In order to take account of the fact that the data are historic, Department for Transport Interim Advice Note 61/05 states that “*the total average deposition rates obtained from the Air Pollution Information System for 2000 should be reduced by 2% per year to estimate [background] deposition rates for the assessment years [without the project or plan]*”. If one works on the conservative assumption that improvements will level off after 2010 (the last year for which the 2% reduction has been modelled), this means that the baseline at the time the development set out in surrounding Core Strategies are complete (2026, the period when the increase in new residents in the county will be at its peak) will be 20% lower than the 2000 data.

Table 4. Air quality with regard to Pevensey Levels Ramsar site

Year	Habitat	Minimum critical load for Nitrogen deposition	Modelled nitrogen deposition	Critical level of NO _x (as NO ₂) ¹⁷	Modelled NO _x concentration (as NO ₂)
2000	Grazing marsh ¹⁸	20 kgNha ⁻¹ yr ⁻¹	16.1 kgNha ⁻¹ yr ⁻¹	30 µgm ⁻³	14.6 µgm ⁻³
2026 (assuming the 2% p.a. improvements described in IAN 61/05 level off after 2010)	Grazing Marsh	20 kgNha ⁻¹ yr ⁻¹	12.9 kgNha ⁻¹ yr ⁻¹	30 µgm ⁻³	11.7 µgm ⁻³

- 3.2.13 It can be seen that both background levels of nitrogen deposition and NO_x concentrations are well below the critical load and critical level respectively. By 2026, a 156% increase in NO_x and 55% increase in nitrogen deposition would be necessary in order to exceed the critical level/load¹⁹.

Lewes Downs SAC

- 3.2.14 The current (2011) level of nitrogen deposition at the SAC according to the Site Relevant Critical Load available on APIS is 12.3 kg/N/ha/yr and the minimum critical load for the habitat present, calcareous grassland, is 15 kg/N/ha/yr. It can be seen that the background levels of nitrogen deposition are currently below the critical load. Nitrogen deposition would need to increase by 22% in order to exceed the critical load.

¹⁶ APIS data accurate as of 15/03/09

¹⁷ NO_x is referenced on APIS as if it was all in the form of NO₂. This is partly because the concentrations of NO₂ and NO in air are inextricably linked through their atmospheric chemistry and partly because little is known of the direct effects of NO alone. In rural air, away from sources of NO, most of the nitrogen oxides in the atmosphere are in the form of NO₂ in any case

¹⁸ Grazing marsh has been selected since it is the habitat for which critical loads have been calculated that most closely corresponds to habitats within the Ramsar site. Note that critical loads have not yet been determined for open water habitats such as ditches and as such are not available on APIS

¹⁹ Scott Wilson (2009): Appropriate Assessment and Air Quality local to the Pevensey Levels Ramsar Site

Diffuse air pollution

- 3.2.15 In addition to the contribution to local air quality issues, development can also contribute cumulatively to an overall deterioration in background air quality across an entire region. In July 2006, when this issue was raised by Runnymede Borough Council in the South East, Natural England advised that their Local Development Framework '*can only be concerned with locally emitted and short range locally acting pollutants*' as this is the only scale which falls within a local authority remit. It is understood that this guidance was not intended to set a precedent, but it inevitably does so since (as far as we are aware) it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.
- 3.2.16 In the light of this and our own knowledge and experience, it is considered reasonable to conclude that diffuse pan-authority air quality impacts are the responsibility of national government, both since they relate to the overall quantum of development within a region (over which individual counties/boroughs have little control), and since this issue is best addressed at the highest pan-authority level. It is therefore our intention that diffuse air quality issues will not be considered within the scope of this HRA as it falls outside the scope of local government control.

3.3 Noise/lighting and European sites

- 3.3.1 Increased traffic may be accompanied by increased noise impacts, although a substantial increase in traffic will be required to generate a perceptible increase in noise (in general, an increase of 25% in traffic volumes is required to lead to a 1 decibel increase in noise levels, and with busy roads even a 1 decibel change may be barely perceptible). Local transport plans may also result in an increase in roadside lighting if new roads are proposed or currently unlit roads are proposed for illumination. With regard to HRA, noise and lighting will only be an issue if they affect European sites designated for their animal interest rather than their habitats. With regard to the East Sussex Local Transport Plan this potentially applies to five European sites within the county:
- Ashdown Forest SPA; and
 - Dungeness to Pett Level SPA & Ramsar site.
- 3.3.2 The degree of impact that varying levels of noise will have on different species of bird is poorly understood except that a number of studies have found that an increase in traffic levels on roads does lead to a reduction in the bird abundance within adjacent hedgerows - Reijnen et al (1995) examined the distribution of 43 passerine species (i.e. 'songbirds'), of which 60% had a lower density closer to the roadside than further away. By controlling vehicle usage they also found that the density generally was lower along busier roads than quieter roads²⁰.
- 3.3.3 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity. Disturbance from noise or visual intrusion is likely to be most relevant if the road is immediately adjacent to an SPA or certain SACs (e.g. those designated

²⁰ Reijnen, R. et al. 1995. The effects of car traffic on breeding bird populations in woodland. III. Reduction of density in relation to the proximity of main roads. *Journal of Applied Ecology* 32: 187-202

for bat species), although impacts have been reported up to 1km away due to more intense sources such as busy highways²¹.

Dungeness to Pett Level SPA

- 3.3.4 At Dungeness to Pett Level SPA, Bewick's Swan is an over wintering/ passage species that uses shallow water bodies and open grassland for shelter and feeding. In the past, the Bewick's Swan was primarily found on the Dungeness Foreland, spilling out of the SPA onto Walland Marsh so as to feed on arable land (which may form part of the future protected area). Wintering Bewick's swans now favour areas of Walland Marsh and Little Cheyne Court for feeding and roosting²², General disturbance is felt to be a significant threat to this species²³. Disturbance is also considered a major threat to breeding Mediterranean gull, little tern and common tern, and to shoveler.

Ashdown Forest SPA

- 3.3.5 Ashdown Forest has been designated for its breeding nightjars and Dartford warbler, both of which are vulnerable to disturbance. A visitor survey has identified that at least 1.35 million annual visits are made to the forest, 60% of which involve dog-walking²⁴.
- 3.3.6 Work by Liley and Clarke²⁵ ²⁶(2002, 2003) found that the density of nightjar on heathland sites (in Dorset) was directly related to the amount of surrounding development; sites surrounded by a high amount of development supported fewer nightjars. A study of nightjars by Murison (2002) noted that nightjar breeding success differed between heavily visited sites and those with little public access. Breeding success and nest density was lower on sites with higher levels of use. The proximity of paths to the nest also correlated strongly with nest failure, up to 225m from the path edge.
- 3.3.7 Unlike nightjar, Dartford warblers are not ground nesting, breeding and foraging instead in gorse bushes. Research by Murison (2006) showed clear associations between Dartford warbler breeding parameters and levels of disturbance by humans and their pets.
- 3.3.8 Lighting is only likely to be an issue if the local transport plan results in the introduction of street lighting to roads within close proximity of European sites which are currently unlit.

3.4 Human disturbance

- 3.4.1 European sites can also be impacted from human disturbance. Since the transport plan also covers the public right of way network and other access rights these will also need to be screened/assessed where appropriate. We can confirm that this issue will therefore be covered

²¹ Reijnen, R. Foppen, R & Veebaas G. (1997) Disturbance by traffic of breeding birds: evaluation of the effect and considerations in planning and managing road corridors. *Biodiversity and Conservation* 6, 567-581 (1997)

²² Statement to Inform on the Predicted Impacts from the Proposed Runway Extension at LAA on the Dungeness to Pett Level SPA (2007). Parsons Brinckerhoff Ltd. <http://www.ukplanning.com/ukp/doc/Report-4941781.pdf?extension=.pdf&id=4941781&location=VOLUME4&contentType=application/pdf&pageCount=39>

²³ Environment Agency (2008). Dungeness to Pett Level SPA Review of Consents Stage 3 Appropriate Assessment.

²⁴ Visitor Access Patterns on Ashdown Forest (2009). UE Associates and University of Brighton.

²⁵ Liley, D. & Clarke, R. T. (2003) The impact of urban development and human disturbance on the numbers of nightjar *Caprimulgus europaeus* on heathlands in Dorset, England. *Biological Conservation*, 114, 219 - 230.

²⁶ Liley, D. & Clarke, R. T. (2002) The impact of human disturbance and urban development on key heathland bird species in Dorset. . Sixth National Heathland Conference (eds J. C. Underhill-Day & D. Liley). RSPB, Bournemouth.

by the scope of the HRA. The following European sites in East Sussex could potentially be vulnerable to recreational pressure:

- Ashdown Forest SPA (the heathland bird species for which this site is designated are highly sensitive to excessive recreational disturbance);
- Dungeness to Pett Level SPA/Ramsar site;
- Castle Hill SAC;
- Lewes Downs SAC; and
- Hastings Cliffs SAC.

3.4.2 Data presented in the HRA of the Wealden Core Strategy prepared by UE Associates (February 2011)²⁷ show that populations of both nightjar and Dartford warbler on the SPA have declined between 2001 and 2005 (a decline of 57.6% for Dartford warbler and 21.7% for nightjar). The reasons for this remain unclear but could relate to weather conditions, survey coverage, or increasing disturbance from visitors or other activities. However, it should also be noted that despite this decline both species populations remain above the levels present at the time of designation, meeting their SSSI conservation objectives.

²⁷ UE Associates. February 2011. Habitat Regulations of the Wealden Core Strategy. Unpublished report to Wealden District Council

4 Likely Significant Effects

- 4.1.1 The following table sets out the HRA screening assessment for each for each commitment of the Local Transport Plan as given in Chapter 4 (LTP3 Strategy) under each iteration of the heading 'Approach'.
- 4.1.2 Green shading in the final column indicates a measure that has been screened out of further consideration due to the absence of any mechanism for an adverse effect on European sites. Orange shading indicates the need for some amendment before it can be considered unlikely to lead to significant effects.

Table 1. Habitat Regulations Assessment Screening (Likely Significant Effects) for each commitment of the Local Transport Plan as given in Chapter 4 (LTP3 Strategy) under each iteration of the heading 'Approach'

Section	Measure	Likely Significant Effect?
Bexhill/Hastings	Promoting and delivering the Bexhill to Hastings Link Road	The link road is intended to reduce traffic volumes on the A259. Therefore delivery of this road will not increase, and may well decrease, traffic movements on the A259 across the Pevensey Levels Ramsar site.
	Delivering a package of complementary measures to the Link Road to enhance the positive impacts of the scheme and enable access by sustainable modes of transport	<p>Although the package of measures is not detailed in the LTP document, since they are geared towards enhancing the positive impacts of the scheme and improvement sustainable transport access, there is nothing to indicate that they would be likely to lead to significant effects on any European sites.</p> <p>They will clearly need to be subject to further screening when the package comes forward.</p>
	Focusing on improvements and safety of key walking routes in both towns.	There is no mechanism for this to lead to significant effects on European sites
	Developing and implementing the cycle route networks for Hastings and Bexhill, focusing on key routes into the town centre, along the seafront and providing links to existing and future residential and employment areas.	The cycle route networks will have to be sensitive to the Hastings Cliffs SAC which could be affected by off-track movements or the creation of new tracks within the site. However, the SAC is already subject to wardening and management by Hastings Council and it is considered very unlikely that proposals for new cycle routes within the SAC would come forward. As such it is considered unlikely that this would lead to significant effects on any European sites.

Section	Measure	Likely Significant Effect?
	<p>Continuation of the Quality Bus Partnership (QBP) for Hastings focused on improving services and infrastructure to deliver improved punctuality on following key bus corridors</p> <ul style="list-style-type: none"> • A259 Bexhill to Hastings/Ore • London Road/Battle Road • Core 'Arrows' routes network running east/west across the town and through the town centre • Conquest Hospital and Bexhill & Hastings Colleges. 	<p>Improvement of bus services will reduce reliance on private cars and is unlikely to lead to significant effects on European sites.</p>
	<p>Developing a QBP for Bexhill focused on improving services and infrastructure in the town and along the Bexhill to Hastings corridor</p>	<p>Improvement of bus services will reduce reliance on private cars and is unlikely to lead to significant effects on European sites.</p>
	<p>Continuing to manage on-street parking in Hastings through civil parking enforcement and controlled parking zones, including appropriate reviews of parking restrictions.</p>	<p>There is no mechanism for this to lead to significant effects on European sites</p>
	<p>Continuing to promote travel plans with businesses and schools through our Travelchoice brand to encourage behaviour change towards sustainable modes of travel.</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.</p>
	<p>Continuing to lobby for major strategic infrastructure improvements on the A21 to help deliver economic and housing growth in the Bexhill and Hastings area</p>	<p>The infrastructure improvements are not specified. However, it is understood that this action only refers to 'lobbying' and the A21 does not lie within 200m of any European sites. It is thus unlikely in itself to lead to significant effects on European sites.</p>
	<p>Continuing to lobby and influence, in partnership with other stakeholders, Network Rail and the train operating companies to maintain and enhance rail capacity and services to accommodate growth in the area, with new stations at Glyne Gap and Wiltling</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.</p>

Section	Measure	Likely Significant Effect?
	<p>Investigating potential improvements across the transport network to facilitate housing and employment growth including:</p> <ul style="list-style-type: none"> • Bexhill Country Avenue Western Extension • Hastings Spur Road Phase 2, and • Junction improvements across the network to address local bottlenecks 	<p>It is understood that the Hastings Spur Road Phase 2 would connect Hastings to the Bexhill-Hastings Link Road and would therefore not affect any European sites. Improvement in bottlenecks will reduce standing traffic and thus improve local air quality.</p>
	<p>Measures to improve traffic movements and access on foot, by bike or by public transport in Hastings and Bexhill town centres</p>	<p>Improvement in traffic movements in the town centres will reduce standing traffic and improve air quality. The town centres do not lie within 200m of any European sites and therefore there will be no local air quality impacts and no likely significant effects.</p>
<p>Eastbourne & South Wealden</p>	<p>Investigating potential long term improvements across the transport network to facilitate housing and employment growth including:</p> <ul style="list-style-type: none"> • Traffic signals at Cophall roundabout. • Improvements at junctions between the A22 Jubilee Way, the A27 and Dittons Road. • Improvements to Hempstead Lane junction to alleviate traffic congestion on the A271 and Hailsham Town Centre. • Relieve town centre congestion on the Battle Road, London Road and High Street corridors in Hailsham. • a Parkway station west of Polegate. • New road / junction improvements between Cophall Roundabout and the A27 (desirable improvement). 	<p>Junction improvements will reduce standing traffic and therefore improve local air quality. None of the junction improvements are located within 200m of any European sites.</p> <p>The mainline railway through Polegate is situated sufficiently far from Pevensey Levels Ramsar site (2.5km at its closest) that any impacts on the Ramsar site should be easily avoidable. When more detailed scheme proposals come forward they will need to be subject to HRA screening to confirm this view.</p>
	<p>Improvements to key junctions on the main transport corridors in the area to make best use of the existing network as well as to accommodate the needs of pedestrians, cyclists and public transport:</p>	<p>Only one of these schemes (A259 Seaford-Eastbourne-Pevensey) affects a route which lies within a European site (a small amount of the identified route lying within the Pevensey Levels Ramsar site). However, improvements in traffic movements through junction</p>
<p>Habitat Regulations Assessment Screening (Likely Significant Effects)</p>	<ul style="list-style-type: none"> • A2270 Polegate to Eastbourne • A2280 Cross Levels Way • A259 Seaford – Eastbourne - Pevensey • A22 Polegate to Hailsham (Boship) 	<p>improvements will reduce standing traffic and improve local air quality. Accommodating the needs of non-private car transport may also indirectly improve air quality. Moreover, HRA work undertaken by URS/Scott Wilson for Rother, Wealden, Eastbourne and</p>

Section	Measure	Likely Significant Effect?
	<ul style="list-style-type: none"> • A22 Lottbridge Drove • A295 Hailsham • A271 north of Hailsham • Ersham Road/Friday Street/Lion Hill/Langney Rise. 	Hastings Councils has identified that the Pevensey Levels Ramsar site is well below its critical load and is likely to remain so following delivery of Core Strategy housing. Therefore significant effects are unlikely.
	Improving accessibility for pedestrians, cyclists and public transport users as well as traffic movement into and within Eastbourne and Hailsham town centres.	There is no mechanism for this to lead to significant effects on European sites
	Supporting a Quality Bus Partnership for Eastbourne focused on improving services and infrastructure on key bus corridors: <ul style="list-style-type: none"> • A259 Seaside (Eastbourne town centre to Sovereign Harbour) • A2021 Kings Drive (Eastbourne town centre to District General Hospital/Sussex Downs College) • A259 Seaside to Langney Shopping Centre • A259/A2270 Eastbourne to Old Town and Polegate/Hailsham including Eastbourne - Hailsham express bus service. 	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	Focusing on improvements to and safety of key walking routes and corridors of movement.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	Developing a cycle strategy, and implement a network of routes which focus on: <ul style="list-style-type: none"> • the improvement of the National Cycle Network routes, • key routes into Eastbourne town centre and along the seafront, and • provide links to residential areas in Eastbourne and neighbouring settlements in the South Wealden area. 	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	The continuing promotion of travel plans in businesses and schools, through our Travelchoice brand, to encourage changes in travel behaviour towards sustainable modes of travel	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.

Section	Measure	Likely Significant Effect?
	Continuing to manage on-street parking in Eastbourne through civil parking enforcement and controlled parking zones, including appropriate reviews of parking restrictions, and developing and implementing a parking strategy for on and off street parking in the town	There is no mechanism for this to result in a significant effect on European sites
	Work with the South Downs National Park Authority, to improve walking, cycling and public transport links into the SDNP.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
Newhaven	Creating a transport interchange facility at Newhaven Town Station to improve integration between rail and bus, along with improved facilities for cyclists, pedestrians and taxis.	There is no mechanism for this to result in a significant effect on European sites
	Investigating potential improvements at key junctions across the transport network to enable development and regeneration.	There is no mechanism for this to result in a significant effect on European sites
	Promoting the need for the construction of the Newhaven Port Access Road as appropriate to enable development of the port's Eastside and assist economic growth in the town.	There is no mechanism for this to result in a significant effect on European sites
	Review the function of the Ring Road and appropriate improvements to reduce severance to the town centre	There is no mechanism for this to result in a significant effect on European sites
	Focusing on further improvements to the bus route network into and within Newhaven, in particular the A259 corridor, to improve accessibility to bus stops and journey time reliability.	There is no mechanism for this to result in a significant effect on European sites
	Focusing on improvements to, and safety of, key walking routes and corridors of movement to reduce community severance and provide access to schools, local shops and facilities, employment, health services and secondary centres as well as the town centre.	There is no mechanism for this to result in a significant effect on European sites
	Developing and implementing a cycle strategy and route network, focused on key routes providing links from residential areas to the town centre, train station and port, as well as to routes to Seaford, Peacehaven, Lewes and the SDNP, to complement the existing	There is no mechanism for this to result in a significant effect on European sites. Although Lewes Downs SAC lies to the east of Newhaven and Lewes should involve the SAC.

Section	Measure	Likely Significant Effect?
	NCN2.	
	Work with our partners including public transport providers, Job Centres and GP consortia to delivery actions which improve accessibility to key facilities in the town.	There is no mechanism for this to result in a significant effect on European sites.
	Work with the National Park Authority, to improve access into the South Downs National Park.	There is no reason why improved access into the National Park from Newhaven should have any effects on European sites
Uckfield	Investigating potential town centre traffic management options to facilitate the additional traffic from further development in Uckfield, without prejudicing the future reinstatement of the Uckfield to Lewes rail line.	There is no mechanism for this to result in a significant effect on European sites. Town centre traffic management may reduce congestion and thus improve local air quality.
	Investigate transport measures associated with future development which reduce the levels of background pollution that could be damaging to human and environmental health.	There is no mechanism for this to result in a significant effect on European sites. It may have a positive effect by enabling the reduction of private car movements along the A22 and A26, which traverse Ashdown Forest SAC/SPA to the north of Uckfield.
	Continuing to support and lobby for the reinstatement of the Uckfield to Lewes railway line, and the Eridge to Tunbridge Wells railway line, as part of wider rail capacity improvements in the county.	This may have a positive effect by enabling the reduction of private car movements along the A22 and A26, which traverse Ashdown Forest SAC/SPA to the north of Uckfield.
	Continuing support and lobbying for electrification, dual tracking, and in the short term, increased capacity on the Uckfield line.	Increased capacity on the rail line may have a positive effect by enabling the reduction of private car movements along the A22 and A26, which traverse Ashdown Forest SAC/SPA to the north of Uckfield.
	Focusing on improvements to and safety of key walking and cycling routes to reduce community severance and provide access to schools, local facilities, employment, health facilities, open space, train station and the town centre.	These may have a positive effect by enabling the reduction of private car movements along the A22 and A26, which traverse Ashdown Forest SAC/SPA to the north of Uckfield.

Section	Measure	Likely Significant Effect?
Lewes, South Coast Towns and South Downs	Focusing on measures which improve access to bus stops on key routes in the town, in particular the Brighton – Lewes – Uckfield – Tunbridge Wells service, in and around the town centre and to the hospital.	It may have a positive effect by enabling the reduction of private car movements along the A22 and A26, which traverse Ashdown Forest SAC/SPA to the north of Uckfield.
	Work with our partners including public transport providers, Job Centres and GP consortia to delivery actions which improve accessibility to key facilities in the town.	There is no mechanism for this to lead to significant effects on European sites
	Working with Lewes District Council and the National Park Authority to enhance the status of Lewes as a gateway town for sustainable access by walking, cycling, public transport, community transport and rail into the South Downs National Park.	Lewes Downs SAC lies within the National Park immediately adjacent to Lewes town. An enhancement in the status of Lewes as a gateway to the National Park will therefore need to ensure that the integrity of this SAC is not affected. Some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
	Maintaining accessibility for rural communities in the National Park.	No details are given as to how this may be achieved; however, care will need to be taken to ensure that such enhanced accessibility does not compromise the integrity of Lewes Downs SAC or Castle Hill SAC both of which lie within the National Park in East Sussex. This should be easily achievable but some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
	Working with Lewes District Council to identify transport measures to support sustainable development coming forward through the Local Development Framework including the potential development of land at North Street.	There is no mechanism for this to result in a significant effect on European sites.
	Focusing on improvements for safe, coherent walking and cycling routes on key corridors in Lewes and the south coast towns.	No details are given; however, there is no reason to conclude that the provision of such walking and cycling routes are likely to have a significant effect on European sites. Care will need to be taken to ensure that such enhanced accessibility does not compromise the integrity of the Lewes Downs SAC or Castle Hill SAC both of which lie within the National Park in East Sussex. This should be easily

Section	Measure	Likely Significant Effect?
		achievable but some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
	Focusing on improvements to public transport on key routes and corridors in Lewes and the south coast towns and potential for better interchange facilities.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	Focusing on transport measures to tackle congestion and address the air quality issues in Lewes town centre.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	Work with key partners including public transport providers, Job Centres and GP Consortia to improve accessibility to key facilities in the area.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
Battle, Rye and Rural Rother	Working with Rother District Council to identify new or improvements to transport infrastructure to support sustainable development in Battle, Rye and the villages of rural Rother which emerges from the LDF.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites. It is assumed that in this instance 'new transport infrastructure' does not include new roads.
	Focusing on improvements on safe, coherent walking and cycling routes on key routes/corridors in Battle and Rye.	No details are given; however, there is no reason to conclude that the provision of such walking and cycling routes are likely to have a significant effect on European sites. Care will need to be taken to ensure that such enhanced accessibility does not compromise the integrity of the Dungeness SAC or Dungeness to Pett Level SPA/Ramsar site which lie in close proximity to Rye, or the potential future Dungeness, Romney Marsh and Rye Bay SPA/Ramsar site. This should be easily achievable but some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
	Focusing on improvements to public transport on key routes and corridors in Battle and Rye.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.

Section	Measure	Likely Significant Effect?
	Focusing on reducing traffic congestion in Battle and Rye town centres; through careful siting of new development through the LDF process, and improving access to the train stations by sustainable transport.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	Improving access to and integration at local rail stations.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
	Working with partners, including public transport providers, Job Centres and GP Consortia, to improve access to key services in the area, particularly focusing on the provision of transport and travel information.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites.
North Wealden and North Lewes District	Retaining and enhancing both Heathfield and Crowborough as service centres for the local community and surrounding settlements thereby reducing the need to travel through the provision of sustainable travel options.	The establishment of these two settlements as service centres with the intention of reducing the need to travel may have positive air quality impacts on the Ashdown Forest SAC/SPA by reducing car movements on the A22 and A26 through the SAC/SPA. However, transport assessment will need to be undertaken to ensure that the enhancements are achieved in such a way as to avoid significantly <i>increasing</i> traffic movements and/or atmospheric nitrogen/acid deposition along the A22/A26 through the SAC/SPA by increasing the status of Crowborough in particular. This should be reflected by wording in the LTP.
	Focusing on improvements on safe, coherent walking and cycling routes on key routes/corridors in Crowborough and Heathfield particularly focused on access to the town centre.	This focuses on walking and cycling within Crowborough and Heathfield town centres and is unlikely to lead to significant effects on European sites
	Focusing on improvements to public transport on key routes and corridors in and into Crowborough and Heathfield particularly focused on access to the town centre.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites and may assist in offsetting any risk of an effect on Ashdown Forest by providing opportunities to access these two service centres by modes other than private car.
	Improving access to and integration at local rail stations	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites and may assist in offsetting any risk of an effect on Ashdown Forest by providing opportunities

Section	Measure	Likely Significant Effect?
		to access these two service centres by modes other than private car.
	Identifying potential solutions to improve the current public transport links between towns and settlements within the district to support the local economy and reduce rural isolation.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites and may assist in offsetting any risk of an effect on Ashdown Forest by providing opportunities to access these two service centres by modes other than private car.
Highway Maintenance and Transport Asset Management	Identify maintenance priorities through our hierarchies for road, footways and rights of way.	There is no mechanism for this to result in a significant effect on European sites.
	Take into consideration the need to adapt our transport infrastructure to the effects of climate change in future reviews of the asset management plans.	There is no mechanism for this to result in a significant effect on European sites.
	Move towards a proactive maintenance approach to all aspects of asset management.	There is no mechanism for this to result in a significant effect on European sites.
	Prioritise maintenance of our A and B class road network to ensure that the condition of our roads is above the national average, and improve customer satisfaction levels.	There is no mechanism for this to result in a significant effect on European sites given that it is within the context of the promotion of public transport identified elsewhere within the LTP.
	Improve the quality and notification of road works to minimise disruption to the travelling public as part of our Network Management duty.	There is no mechanism for this to result in a significant effect on European sites.
	Work with other partners to co-ordinate road works and minimise the impact on the travelling public.	There is no mechanism for this to result in a significant effect on European sites.
	Work with other partner authorities in the South East 7 (SE7) to deliver efficiencies in the procurement of highway maintenance	There is no mechanism for this to result in a significant effect on European sites.
	Incorporate measures to reduce noise on those sections of road where national indicators are exceeded.	There is no mechanism for this to result in a significant effect on European sites.

Section	Measure	Likely Significant Effect?
Road transport, education, safety and speed management	<p>Reduce the number of killed and seriously injured on our roads through a range of engineering, education and enforcement initiatives including:</p> <ul style="list-style-type: none"> • establishing a Route Management approach for bringing all A and B roads in the county up to a minimum standard of safety, • reducing the number of single-site safety schemes and investing more in overall route improvement in identified high risk areas, • looking for opportunities to provide safe crossings on rights of way, • targeting education campaigns for under 50cc moped riders, • supporting the current Safe Drive / Stay Alive education programme run by East Sussex Fire and Rescue Service (ESFRS) and targeting schools in high risk areas with follow up sessions with pupils, • roadside and biker event safety campaigns targeting high powered two wheeler riders, • joint work with the Primary Care Trusts on drink/drive campaigns, and • develop links with insurance companies locally to develop incentive schemes for young drivers, such as subsidised Pass Plus courses. 	There is no mechanism for this to result in a significant effect on European sites.
	<p>Deliver cycle training through 'Bikeability' courses Promote child pedestrian training in primary schools and maintain school crossing patrols at those sites meeting the criteria</p>	There is no mechanism for this to result in a significant effect on European sites.
	<p>Undertake programmes to retrain all blameworthy drivers and motorcyclists involved in 'driving without due care' incidents or crashes who are referred to the Driver Improvement course by Sussex Police.</p>	There is no mechanism for this to result in a significant effect on European sites.
	<p>Undertake Speed Awareness courses for drivers exceeding speed limits within certain parameters. Promote the Fleet Risk Management and Driver Training Programme.</p>	There is no mechanism for this to result in a significant effect on European sites.

Section	Measure	Likely Significant Effect?
	Introduce lower speed limits on A or B class roads and in villages where speed limits are 40mph or more, and establish 20 mph zones where they meet the current council criteria and to encourage people to shift to walking and cycling from their cars.	There is no mechanism for this to result in a significant effect on European sites.
	Continue to support Police enforcement and national/local road awareness campaigns.	There is no mechanism for this to result in a significant effect on European sites.
Bus	<p>Maintain and improve the quality of commercial services, particularly through Quality Bus Partnerships in and around Hastings, Bexhill and Eastbourne:</p> <ul style="list-style-type: none"> • promoting a stable network and coordinating service changes, • encouraging operators to invest in cleaner buses with low emissions, • encouraging integration with other forms of transport and integrating bus and train timetables where possible, and • providing safe waiting and travelling environments and dealing with anti-social behaviour on public transport. 	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	<p>Prioritise supported services within the following hierarchy:</p> <ul style="list-style-type: none"> • School services for eligible children. • Peak time services to key centres, further education and employment. • Daytime services to key centres, hospitals and GP surgeries. 	There is no mechanism for this to result in a significant effect on European sites.
	Evening and weekend services to key centres and hospitals.	There is no mechanism for this to result in a significant effect on European sites.
	<p>Enforce parking restrictions and provide bus priority measures as funding becomes available to improve journey time reliability and punctuality.</p> <p>Improve the standard of provision at bus stops and interchanges.</p>	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites

Section	Measure	Likely Significant Effect?
	<p>Provide high quality information, both in advance of an intended journey and at the time of travel, using a range of media which identifies:</p> <ul style="list-style-type: none"> • where passengers can travel to, • the time it will take, • the frequency of service, and • cost. 	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>
	<p>Deliver the national concessionary travel scheme. Encourage commercial operators to develop and promote discounted fares for children and young people and develop multi-operator ticketing schemes as well as the Plus-Bus bus/rail ticket</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>
Community Transport	<p>Maintain a comprehensive, up-to-date database of all community transport operators in the county with details of the services provided, user eligibility criteria and booking arrangements.</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>
	<p>Establish a robust analysis approach to monitor the value for money of community transport provision and assess the value of potential new and extended community transport objectives.</p>	<p>There is no mechanism for this to result in a significant effect on European sites.</p>
	<p>Foster local and countywide partnerships and engagement to share best practice between the main stakeholders, the CT operators, district and borough councils, parish and town councils and the health sector.</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>
	<p>Give CT operators the opportunity to tender for passenger transport contracts as and when they are available.</p>	<p>There is no mechanism for this to result in a significant effect on European sites.</p>
	<p>Promote the availability of CT services generally and market specific services to potential users, within the legal restrictions.</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>
	<p>Work with partners to develop affordable Community Transport pricing arrangements and consider development of a Sussex County Card concessionary bus fare scheme.</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>

Section	Measure	Likely Significant Effect?
Strategic Improvements - Road	<p>We will continue to pursue the following strategic road improvements to deliver sustainable economic growth in East Sussex:</p> <ul style="list-style-type: none"> • A259 Bexhill to Hastings Link Road • A23 Handcross to Warninglid • A21 Tonbridge to Pembury dualling • A21 Kippings Cross to Lamberhurst • A21 Flimwell to Robertsbridge 	<p>None of these will affect European sites except the A259 Bexhill-Hastings Link Road which may have a positive effect on the Pevensey Levels Ramsar site by reducing private car movements on that road.</p>
Strategic Improvements – Rail	<p>We will continue to lobby for the following targeted rail infrastructure improvements which improve East Sussex’s connectivity to London, Ashford and Brighton:</p> <ul style="list-style-type: none"> • Electrification and dual tracking on the Hastings – Ashford line, • Electrification and dual tracking of the Uckfield – Hurst Green section of the Uckfield line, • Increased capacity on the wider rail network serving the county and the London termini, • New stations at Glyne Gap, Wilting, Stone Cross/North Langney and Polegate, • Reinstatement of the Lewes – Uckfield line as part of wider rail capacity improvements, • Reinstatement of the Willingdon Chord. 	<p>Rail improvements will generally lead to a reduction in road traffic which will have a positive air quality impact. None of these improvements will directly affect European sites except possibly the new Polegate station. However, the mainline through Polegate is sufficiently far from the Pevensey Levels Ramsar site (2.5km at its closest) that it should be easily possible to avoid any effects.</p>
Active Travel – Walking and Cycling	<p>Make walking more attractive for short journeys to maximise the opportunities to walk to local facilities and services</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>
	<p>Consider appropriate crossing facilities on key corridors of movement only where there is a clear demonstrable need.</p>	<p>There is no mechanism for this to result in a significant effect on European sites.</p>
	<p>Improve mobility access by providing dropped kerbs and tactile paving.</p>	<p>There is no mechanism for this to result in a significant effect on European sites.</p>
	<p>Undertake audits of all transport infrastructure improvement schemes to ensure accessibility for all, including the disabled, and to reduce severance.</p>	<p>This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites</p>

Section	Measure	Likely Significant Effect?
	Encourage high quality street design, giving priority to the needs of pedestrians, to make public places in which people want to live and spend time.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Consider potential new cycle routes and facilities in the following priority order: <ul style="list-style-type: none"> • Urban utility cycle routes under 5km, especially: <ol style="list-style-type: none"> 1. the National Cycle Network where it serves as a utility route, 2. safer routes to schools and other educational facilities, and 3. routes from residential areas to key trip attractors. • Inter-urban utility links • Rural-urban and rural-rural utility links • Recreational routes. 	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites. Each proposed scheme would need to be subject to HRA screening to confirm that there would be unlikely to be significant effects on European sites and this should be included within the LTP.
	Encourage recreational cycling and cycle tourism through promotion, guided rides and making best use of existing recreational routes.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Undertake a cycle audit of all highway schemes. Integrate cycling with public transport, where practical, through establishing links to local and national cycle routes and covered cycle parking at stations and bus stops.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Promote the health, environmental and financial benefits of walking and cycling.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Through school travel plans, promote walking to school and encourage schools to provide adequate, secure, covered cycle parking and provide on-road training for year 6 pupils.	There is no mechanism for this to result in a significant effect on European sites.
	Target vehicle drivers to raise their awareness of the safety issues which prevent people from walking and cycling	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites

Section	Measure	Likely Significant Effect?
Behaviour change	Through our Travelchoice brand, promote the wider health and CO2 reduction benefits of walking, cycling, public transport and car sharing to change people's travel behaviour by: <ul style="list-style-type: none"> • Better travel information (see Bus section) • School Travel Planning (see Sustainable School Travel section) • Voluntary and development led workplace travel plans • Travel awareness campaigns and promotions • Car sharing • Car clubs. 	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Deliver targeted behaviour change measures in communities to support the promotion of new sustainable transport schemes.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Consider how the introduction of transport schemes can support or 'nudge' communities into using more sustainable modes of travel.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
Sustainable School Travel	Facilitate the school community and governing bodies, to introduce sustainable school travel initiatives through school travel plans, which: <ul style="list-style-type: none"> • Reduce the use of cars on school journeys and increase the number of children walking, cycling , car sharing and using public transport • Reduce the negative environmental impacts of car travel • Promote the positive benefits of physically active travel • Increase and promote sustainable school travel choices, and • Raise awareness of road safety issues. 	There is no mechanism for this to result in a significant effect on European sites.
Rail	Improved accessibility, bus/rail interchange facilities and cycle parking at stations.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Work with Network Rail and the Train Operating Companies (TOCs) to deliver improved frequency of services and train rolling stock capacity serving the county.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites

Section	Measure	Likely Significant Effect?
	Work with Network Rail on future reviews of the Kent, Sussex, Electrification and London & South East Route Utilisation Strategies.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Liaise with Network Rail on tackling rail safety issues where the road and rail networks interact, especially at level crossings.	There is no mechanism for this to result in a significant effect on European sites.
	Continue to work in partnership with the Sussex Community Rail Partnership on the promotion rail usage, rail improvements on the community rail lines in the county.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Work with the TOCs to improve access to rail stations by walking, cycling and public transport. Work with the TOCs to improve car parking at rail stations and tackle issues in nearby residential areas.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
	Input into appropriate consultations and franchise renewals which determine improvements and investment on the rail network for East Sussex residents and visitors to the county, as well as freight opportunities.	This may reduce reliance on private cars and is unlikely to lead to significant effects on European sites
Parking	Explore the implementation, when appropriate, of civil parking enforcement across other areas of the county to provide local solutions to address current parking issues.	There is no mechanism for this to result in a significant effect on European sites.
	Review and introduce local solutions, as appropriate, to existing controlled parking schemes in Lewes, Hastings and Eastbourne.	There is no mechanism for this to result in a significant effect on European sites.
	Ensure new development provides appropriate levels of parking according to agreed local requirements.	There is no mechanism for this to result in a significant effect on European sites.
	Provide secure and appropriately placed cycle and motorcycle parking.	There is no mechanism for this to result in a significant effect on European sites.
	Administer the Blue Badge scheme for people with mobility difficulties as part of the nationally recognised disabled parking	There is no mechanism for this to result in a significant effect on European sites.

Section	Measure	Likely Significant Effect?
	scheme.	
Freight	Promote the use by goods vehicles of our advisory freight route network of A and B class roads.	<p>The freight route network presumably includes the A22 and A26. Both of these routes pass within 200m of Ashdown Forest SAC/SPA which is already subject to relatively poor air quality.</p> <p>To an extent the effects of this policy would be offset through the other freight initiatives. However, there isn't sufficient certainty in the LTP as currently worded to enable us to conclude that a significant effect is unlikely when considered in combination with the increase in vehicle movements on these roads which may result from the increased housing in East Sussex over the plan period.</p> <p>It will therefore be necessary to include a safeguard e.g. that proposals for new goods distribution facilities will be subject to a transport assessment to determine if they will lead to a significant increase in vehicle movements (i.e. an increase in AADT of more than 200 Heavy Duty Vehicles/day) on the A22 and A26 as they lie within 200m of Ashdown Forest SAC/SPA. If so, then they will need to confirm that the increase in deposition within the SAC/SPA will not be greater than 1% of the critical load, and if it will be greater, further assessment will be required to demonstrate that there is no adverse affect on the integrity of the designated site.</p>
	Develop Freight Quality Partnerships with industry and communities to address local freight issues.	There is no mechanism for this to result in a significant effect on European sites.
	Support the transfer of freight by rail.	This may reduce reliance on road transport and is unlikely to lead to significant effects on European sites
	Work with Ordnance Survey and the freight industry to help address inappropriate use of routes identified by satellite navigation systems.	There is no mechanism for this to result in a significant effect on European sites.
	Encourage more sustainably accessible locations for new business	This may reduce reliance on road transport and is unlikely to lead

Section	Measure	Likely Significant Effect?
	premises.	to significant effects on European sites
	Encourage safer, more efficient deliveries and raise awareness of freight and distribution.	There is no mechanism for this to result in a significant effect on European sites.
Rights of Way	Ensure that the footpaths, bridleways and byways around the county and in the South Downs National Park are safe and accessible for public use.	There is no mechanism for this to result in a significant effect on European sites.
	Improve access for all and make the network available to people with differing abilities, by taking the needs of disabled people into account and promoting a series of routes designed with disabled people in mind.	There is no mechanism for this to result in a significant effect on European sites.
	Improve safety and convenience through improved road crossings, making verges safer for horse riders, and seek adjustments to the network to improve safety.	This may reduce reliance on road transport and is unlikely to lead to significant effects on European sites
	Provide good quality information and education on access to the countryside to the public through the internet, including making online access to the definitive rights of way network more accessible and improving the 'on the ground' information.	This may reduce reliance on road transport and is unlikely to lead to significant effects on European sites
	Improve partnership working by encouraging volunteers, working with land managers and liaising with town and parish councils, other authorities and organisations including the SDNP. Improve and promote long distance and circular walking routes.	This may reduce reliance on road transport and is unlikely to lead to significant effects on European sites
Transport Technology	Use Intelligent Transport Systems across our network to improve decision making and enhance the level of service provided to all road users through: <ul style="list-style-type: none"> • co-ordination between traffic signals and/or pedestrian crossings to improve pedestrian and traffic flows, • promote internet-based timetables and journey planners for public transport, • development and promotion of Smart Ticketing schemes as they 	This may reduce reliance on road transport and is unlikely to lead to significant effects on European sites

Section	Measure	Likely Significant Effect?
	become feasible, • bus priority on key bus corridors, and • consider the roll out of real time bus information into other parts of the County. • Consider the implementation of electric vehicle infrastructure (i.e. charging points) in the priority areas of the county.	

4.1.3 It can be seen from this screening exercise that based upon the level of information available only six measures cannot be screened out as unlikely to lead to significant effects. In all six cases this is essentially because the infrastructure to be delivered is not precisely defined and in all three cases some additional wording within the LTP to provide safeguarding would enable the measure to be screened out at this level.

Section	Measure	Likely Significant Effect?
Lewes, South Coast Towns and South Downs	Working with Lewes District Council and the National Park Authority to enhance the status of Lewes as a gateway town for sustainable access by walking, cycling, public transport, community transport and rail into the South Downs National Park.	Lewes Downs SAC lies within the National Park immediately adjacent to Lewes town. An enhancement in the status of Lewes as a gateway to the National Park will therefore need to ensure that the integrity of this SAC is not affected. Some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
	Maintaining accessibility for rural communities in the National Park.	No details are given as to how this may be achieved; however, care will need to be taken to ensure that such enhanced accessibility does not compromise the integrity of Lewes Downs SAC or Castle Hill SAC both of which lie within the National Park in East Sussex. This should be easily achievable but some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
	Focusing on improvements for safe, coherent walking and cycling routes on key corridors in Lewes and the south coast towns.	No details are given; however, there is no reason to conclude that the provision of such walking and cycling routes are likely to have a significant effect on European sites. Care will need to be taken to ensure that such enhanced accessibility does not compromise the integrity of the Lewes Downs SAC or Castle Hill SAC both of which lie within the National Park in East Sussex. This should be easily achievable but some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.
Battle, Rye and Rural Rother	Focusing on improvements on safe, coherent walking and cycling routes on key routes/corridors in Battle and Rye.	No details are given; however, there is no reason to conclude that the provision of such walking and cycling routes are likely to have a significant effect on European sites. Care will need to be taken to ensure that such enhanced accessibility does not compromise the integrity of the Dungeness SAC or Dungeness to Pett Level SPA/Ramsar site which lie in close proximity to Rye, or the potential future Dungeness, Romney Marsh and Rye Bay SPA/Ramsar site. This should be easily achievable but some additional wording in the LTP acknowledging this internationally important constraint is required to provide confirmation of this before it can be screened out.

Section	Measure	Likely Significant Effect?
North Wealden and North Lewes District	Retaining and enhancing both Heathfield and Crowborough as service centres for the local community and surrounding settlements thereby reducing the need to travel through the provision of sustainable travel options.	The establishment of these two settlements as service centres with the intention of reducing the need to travel may have positive air quality impacts on the Ashdown Forest SAC/SPA by reducing car movements on the A22 and A26 through the SAC/SPA. However, transport assessment will need to be undertaken to ensure that the enhancements are achieved in such a way as to avoid significantly <i>increasing</i> traffic movements and/or atmospheric nitrogen/acid deposition along the A22/A26 through the SAC/SPA by increasing the status of Crowborough in particular. This should be reflected by wording in the LTP.
Freight	Promote the use by goods vehicles of our advisory freight route network of A and B class roads.	<p>The freight route network presumably includes the A22 and A26. Both of these routes pass within 200m of Ashdown Forest SAC/SPA which is already subject to relatively poor air quality.</p> <p>To an extent the effects of this policy would be offset through the other freight initiatives. However, there isn't sufficient certainty in the LTP as currently worded to enable us to conclude that a significant effect is unlikely when considered in combination with the increase in vehicle movements on these roads which may result from the increased housing in East Sussex over the plan period.</p> <p>It will therefore be necessary to include a safeguard e.g. that proposals for new goods distribution facilities will be subject to a transport assessment to determine if they will lead to a significant increase in vehicle movements (i.e. an increase in AADT of more than 200 Heavy Duty Vehicles/day) on the A22 and A26 as they lie within 200m of Ashdown Forest SAC/SPA. If so, then they will need to confirm that the increase in deposition within the SAC/SPA will not be greater than 1% of the critical load, and if it will be greater, further assessment will be required to demonstrate that there is no adverse affect on the integrity of the designated site.</p> <p>We recommend that the monitoring proposals for noise and air pollution associated with the LTP include monitoring of designated sites within 200m of major roads, particularly the A22 and A26.</p>

4.1.4 Individual schemes to be brought forward subsequent to the adoption of the LTP document would themselves require HRA screening in order to ensure that the conclusion reached at this stage was still valid.

4.2 Other Plans and Projects

- 4.2.1 Given that only a high level screening exercise has been possible up to this point, and as a result of the lack of a list of specific schemes that the LTP intends to deliver, a detailed 'in combination' assessment would not be meaningful at this stage. However, a high level consideration of key plans and projects in East Sussex is appropriate. In practice this largely resolves itself into consideration of impacts from the housing and commercial development throughout East Sussex as set out in the various Local Development Framework Core Strategies for Rother, Wealden, Hastings and Eastbourne.
- 4.2.2 There will be increased traffic associated with new housing development over the same timeframe in Rother, Wealden, Hastings and Eastbourne. However, an assessment of the air quality impacts of development in these four districts upon Pevensy Levels Ramsar site identified that even when considered 'in combination' nitrogen deposition due to road traffic should fall below the critical load for the Ramsar site. For this reason, no 'in combination' effects exist.
- 4.2.3 Equally, an HRA of the Wealden Core Strategy undertaken by UE Associates (February 2011) identified that the additional road journeys on the A22 and A26 through Ashdown Forest could be scoped out of consideration with regard to air quality impacts on the basis that the level of additional traffic anticipated on those roads fell below the DMRB thresholds for 'affected roads'. The same HRA did identify that recreational disturbance impacts may occur but provided the amendments to the LTP recommended above are made and that individual schemes for increasing sustainable visitor movement in the Ashdown Forest area are subject to HRA screening no 'in combination' effects should arise.
- 4.2.4 The HRA for the Hastings Core Strategy undertaken by Scott Wilson in 2010 identified that there would be no adverse effects on Hastings Cliffs SAC from additional housing to be delivered in Hastings over the period until 2026. There will therefore be no in combination effects.
- 4.2.5 The East Sussex Minerals and Waste HRA is currently in draft form, but has also concluded that the minerals development proposed for East Sussex would be unlikely to have a significant effect on European sites provided safeguards are included within the Waste & Minerals policies. As such, no in combination effects would result.
- 4.2.6 Based on the information available at this stage, it is therefore unlikely that significant effects will arise on European sites, when the Local Transport Plan is considered in combination with other projects and plans.

5 Conclusion

- 5.1.1 At this stage some further amendments to wording in the LTP is required before we are able to conclude that significant effects are unlikely. Once these amendments have been made, the LTP will be reassessed and this conclusion can be amended.