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Habitat Regulations Assessment of the Regulation 18 Tunbridge Wells Local Plan

Tunbridge Wells Borough Council

60553932

Quality information

Prepared by	Checked by	Approved by
Damiano Weitowitz Consultant Ecologist	James Riley Technical Director	Max Wade Technical Director

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Prepared for:

Tunbridge Wells Borough Council

Prepared by:

Damiano Weitowitz
Consultant Ecologist
E: Damiano.weitowitz@aecom.com

AECOM Infrastructure & Environment UK Limited
Midpoint, Alencon Link
Basingstoke
Hampshire RG21 7PP
United Kingdom

T: +44(0)1256 310200
aecom.com

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1. Background

1.1 Introduction

AECOM was appointed by Tunbridge Wells Borough Council (hereafter referred to as 'TWBC') to assist the Council in undertaking a Habitats Regulations Assessment of its Regulation 18 Draft Local Plan. The objective of this assessment was to identify any aspects of the Plan that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites), either in isolation or in combination with other plans and projects, and to advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.

The Draft Local Plan seeks to meet housing and employment needs within the Borough without compromising the built and natural environment. It will identify requirements for development and growth within the District, including when and where development and growth will occur throughout the Local Plan period (2016 – 2036). It is projected within the Draft Local Plan that 14,776 homes (this includes a 9% buffer to ensure deliverability) will be needed in Tunbridge Wells Borough to accommodate the growing population between 2016 and 2036. The draft Local Plan outlines that, minus completions as of spring 2019, a total of 13,224 of these dwellings are still to be delivered, including 588 carried forward from the existing plan, 8,809 new allocations, 700 windfalls and the remainder being outstanding planning permissions. At least 90,000m^2 of new employment space and 37,500m^2 of new retail space are also to be delivered over the remainder of the Local Plan period (see Development Strategy in the draft Local Plan, p38).

An initial HRA of the emerging TWBC Local Plan was carried out by AECOM in 2016. The HRA for the Issues and Options Consultation concluded that the Issues and Options document did not provide a sufficient level of detail (i.e. quantum and location of development) to fully determine the effect of that planned level of residential growth in the borough will have upon the Ashdown Forest Special Area of Conservation (SAC) and Special Protection Area (SPA) as a result of increased recreational pressure and atmospheric pollution from increased traffic flow. However, since the Issues and Options HRA was produced, new data commissioned by TWBC, and neighbouring authorities, has emerged regarding both air quality and recreational pressure issues in Ashdown Forest. These data consist of traffic and air quality modelling undertaken for key traffic nodes in Ashdown Forest SAC and repeated on-site visitor surveys of the SAC, allowing for a much more detailed consideration of these impact pathways. In addition, a more detailed Plan specifying the quantum and location of housing and employment development has also been provided. Considering these new data, this report provides a detailed analysis of the Likely Significant Effects (LSEs) on European sites related to the Local Plan and an Appropriate Assessment considering the potential for the Plan to adversely affect the integrity of European sites where relevant.

An earlier assessment of the designated sites surrounding TWB and the potential operating impact pathways for the Tunbridge Wells Core Strategy indicated that the Ashdown Forest SAC and SPA is the sole European site requiring consideration. The Core Strategy HRA identified a potential linking pathway that could result in adverse effects upon the Ashdown Forest SAC and SPA that could act in combination with other projects and plans. The impact pathway investigated was recreational pressure. The Core Strategy HRA screened out impacts from atmospheric pollution from increased traffic flows stemming from the Core Strategy, even in combination. However, this impact pathway will be re-visited within this document and within future Local Plan HRA work given the passage of time since the Core Strategy HRA was undertaken in 2012 and a change in the practice of air quality assessment for Local Plans as a result of recent case law in the Ashdown Forest area. As such this report discusses both the linking impact pathways of recreational pressure and atmospheric pollution.

The UK is bound by the terms of the Habitats Directive (92/43/EEC). Under Article 6(3) of the Habitats Directive, an appropriate assessment is required, where a plan or project is likely to have a significant effect upon a European Site, either individually or 'in combination' with other projects. The Directive is implemented in the UK by the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations"), as amended.

The objective of this report is to identify any aspects of the Plan that would be likely to lead to adverse effects on the integrity of any sites afforded protection under the Habitats Regulations. In the UK, this comprises Special Areas of Conservation (SACs), Special Protection Areas (SPAs), candidate Special Areas of Conservation (cSACs), and potential Special Protection Areas (pSPAs). In accordance with Government policy, assessment is applied to sites designated under the Ramsar Convention on Wetlands of International Importance (Ramsar sites). These sites are referred to collectively in this Report as "European Sites".

1.2 Legislative Context

The need for an assessment of impacts on European sites is set out within Article 6 of the Habitats Directive, and transposed into UK law by the Conservation of Habitats and Species Regulations 2017. The ultimate aim of the Habitats Directive is to "*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Article 2(2)). This aim relates to habitats and species, not the European Sites themselves, although the European Sites have a significant role in delivering favourable conservation status.

The Habitats Directive applies the precautionary principle1 to European Sites. Consent should only be granted for plans and projects once the relevant competent authority has ascertained that there will either be no likelihood of significant effects, or no adverse effect on the integrity of the European Site(s) in question. Where an Appropriate Assessment has been carried out and results in a negative impact, or if uncertainty remains over the significant effect, consent will only be granted if there are no alternative solutions and there are Imperative Reasons of Over-riding Public Interest (IROPI) for the development and compensatory measures have been secured.

To ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question. The competent authority is entitled to request the applicant to produce such information as the competent authority may reasonably require for the purposes of the assessment, or to enable it to determine whether an appropriate assessment is required. Figure 1 provides the legislative basis for an Appropriate Assessment.

Habitats Directive 1992

Article 6 (3) states that:

"*Any plan of 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."*

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations state that:

"*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 … must make an appropriate assessment of the implications for the plan or project in view of that site's conservation objectives… The competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site."*

Figure 1. The legislative basis for Appropriate Assessment

Over the years, 'Habitats Regulations Assessment' (HRA) has come into wide currency to describe the overall process set out in the Habitats Regulations, from screening through to identification of IROPI. This has arisen in order to distinguish the overall process from the individual stage of

[1] The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as:
"*When human activities may lead to morally unacceptable harm [to the environment] that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis*".

"Appropriate Assessment". Throughout this Report the term HRA is used for the overall process and restricts the use of Appropriate Assessment to the specific stage of that name.

1.3 Scope of the Project

There is no pre-defined guidance that dictates the physical scope of an HRA of a Plan document. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways (called the source-pathway-receptor model) rather than by arbitrary 'zones'. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Tunbridge Wells Borough boundary; and,
- Other sites shown to be linked to development within the District boundary through a known 'pathway' (discussed below).

Briefly defined, pathways are routes by which the implementation of a policy within a Local Plan document can lead to an effect upon a European designated site. An example of this would be new residential development resulting in an increased population and thus increased recreational pressure, which could then affect European sites by, for example, disturbance of wintering or breeding birds. Guidance from the Ministry of Housing, Communities and Local Government (MHCLG) states that the HRA should be '*proportionate to the geographical scope of the* [plan policy]' and that '*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*' (MHCLG, 2006, p.6). More recently, the Court of Appeal2 ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be 'achieved in practice' to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Core Strategy document)3. In this case the High Court ruled that for '*a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of Reg 61 of the Habitats Regulations'*.

Given the findings of the Issues and Options Consultation HRA, this report will focus entirely on the following European sites:

- Ashdown Forest SAC; and,
- Ashdown Forest SPA.

The reasons for designation of these sites, together with current trends in habitat quality and pressures on the sites, are set out in chapters 3.1 and 3.2.

In order to fully inform the screening process, a number of recent studies have been consulted to determine likely significant effects that could arise from the Draft Version of the Plan. These include:

- Future development proposed (and, where available, HRAs) for Lewes, Mid-Sussex, Horsham, Wealden, Rother, and Brighton & Hove Districts.
- Ashdown Forest Air Quality Impact Assessment (undertaken in March 2018 and reproduced in Appendix 3 with text amendments);
- Ashdown Forest Visitor Survey 2016[4];
- The UK Air Pollution Information System (www.apis.ac.uk); and
- Multi Agency Geographic Information for the Countryside (MAGIC) and its links to SSSI citations and the JNCC website (www.magic.gov.uk)

[2] No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015
[3] High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015
[4] Liley, D., Panter, C. & Blake, D. (2016). Ashdown Forest Visitor Survey 2016. Footprint Ecology Unpublished report.

1.4 Quality Assurance

This report was undertaken in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, quality, environmental and Health and Safety management. All staff members are committed to establishing and maintaining our certification to the international standards BS EN ISO 9001:2008 and 14001:2004 and BS OHSAS 18001:2007. In addition, our IMS requires careful selection and monitoring of the performance of all sub-consultants and contractors.

All AECOM Ecologists working on this project are members (at the appropriate level) of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct (CIEEM, 2017).

2. Methodology

2.1 Introduction

The HRA has been carried out with reference to the general EC guidance on HRA[5] and that produced in July 2019 by the UK government[6]; Natural England has produced its own internal guidance[7]. These have been referred to in undertaking this HRA.

Plate 2 below outlines the stages of HRA according to current EC 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.

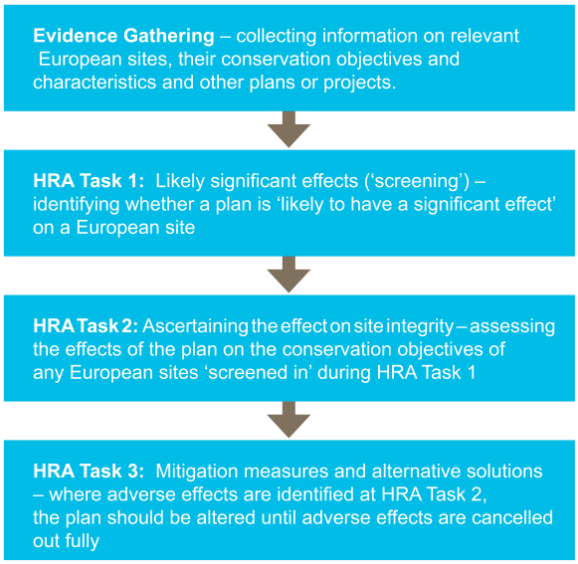

Figure 2. Four Stage Approach to Habitats Regulations Assessment. Source EC, 2001[1].

2.2 Description of HRA Tasks

2.2.1 HRA Task 1 – Likely Significant Effects (LSE)

Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

"Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"

The objective is to 'screen out' those plans and projects 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 for an adverse interaction with European sites. This stage is undertaken in Chapter 4 of this report and in Appendix A.

2.2.2 HRA Task 2 – Appropriate Assessment (AA)

Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'appropriate assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to appropriate assessment rather than determination of likely significant effects.

[5] European Commission (2001): Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive.
[6] https://www.gov.uk/guidance/appropriate-assessment
[7] http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf

By virtue of the fact that it follows Screening, there is a clear implication that the analysis will be more detailed than undertaken at the Screening stage and one of the key considerations during appropriate assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the appropriate assessment would take any policies or allocations that could not be dismissed following the high-level Screening analysis and analyse the potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on integrity (in other words, disruption of the coherent structure and function of the European site(s)).

A decision by the European Court of Justice[8] in 2018 concluded that measures intended to avoid or reduce the harmful effects of a proposed project on a European site may no longer be taken into account by competent authorities at the Likely Significant Effects or 'screening' stage of HRA. That ruling has been taken into account in producing this HRA.

Also in 2018 the Holohan ruling[9] was handed down by the European Court of Justice. Among other provisions paragraph 39 of the ruling states that '*As regards other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, … typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area*' [emphasis added]. This has been taken into account in the HRA process particularly with regard to air quality effects on the deciduous woodland habitat of Ashdown Forest SAC/SPA. Since permanent deciduous woodland of the site is not '*necessary to the conservation of the habitat types and species listed for the protected area'* (i.e. the heathland, great crested newt and populations of nightjar and Dartford warbler) it does not need considering in the HRA.

2.2.3 HRA Task 3 – Avoidance and Mitigation

Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a Local Plan document needs to contain regarding mitigation for recreational impacts on European sites. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.

In evaluating significance, AECOM has relied on professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.

When discussing 'mitigation' for a Local Plan document, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since the Local Plan document is a high-level policy document.

2.3 Physical Scope of the HRA

There are no standard criteria for determining the ultimate physical scope of an HRA. Rather, the source-pathway-receptor model should be used to determine whether there is any potential pathway connecting development to any European sites. In the case of Tunbridge Wells Borough (hereafter referred to as 'TWB') it was determined at an early stage that for an initial coarse screen, a single site comprising multiple European Designations should be looked at:

- Ashdown Forest SAC
- Ashdown Forest SPA

This was based upon a 20km zone of search around Borough boundaries, and included housing and employment development sites. These were therefore the subject of the initial screening exercise. It should be noted that the presence of a conceivable pathway linking the Borough to a European site does not mean that likely significant effects will occur.

[8] People Over Wind and Sweetman v Coillte Teoranta (C-323/17)
[9] Case C-461/17

3. European Designated Sites

3.1 Ashdown Forest Special Area of Conservation

3.1.1 Introduction

Ashdown Forest is an extensive area of common land lying between East Grinstead and Crowborough entirely within Wealden District. The soils are derived from the predominantly sandy Hastings Beds, supporting valley mires, heath and damp woodland.

Despite a recent acceleration in the development of woodland, Ashdown Forest remains one of the largest single continuous blocks of lowland heath in England. Its geology in combination with climatic factors provide soils that are typically acid, clayey and nutrient-poor, supporting a range of heathland flora, including heather (*Calluna vulgaris*), bell heather (*Erica cinerea*), cross-leaved heath (*Erica tetralix*), gorse (*Ulex europaeus*) and dwarf gorse (*Ulex minor*). In turn, these plants support a rich invertebrate flora and unique assemblages of heath and woodland birds (see introduction on Ashdown Forest SPA).

The heath woodland may be varied, including birch (*Betula sp.*, acting as primary colonisers), oak (*Quercus robur*), willow (*Salix sp.*) and pine (*Pinus* sp.). In areas where grazing management has been limited, woodland often encroaches over former heath, forming dense and shaded areas with sparse ground flora.

3.1.2 Features of European interest[10]

The site was designated as being of European importance for the following interest feature:

Annex I habitats:

- Northern Atlantic wet heathland with *Erica tetralix* (Annex I)
- European dry heathland, dominated by *Calluna vulgaris* (Annex I)

Annex II species:

- Great crested newt (*Triturus cristatus*) (qualifying feature, but not primary reason for designation)

3.1.3 Conservation Objectives[11]

With regard to the SAC and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of the qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying habitats and the habitats of the qualifying species rely

[10] Features of European Interest are the features for which a European site is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive; available at http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030080 [Accessed: 12/04/2019].
[11] Natural England (2014). European Site Conservation Objectives for Ashdown Forest SAC Site Code: UK0030080 http://publications.naturalengland.org.uk/file/6746917321048064 [accessed 12/04/2019]

- The populations of qualifying species, and,
- The distribution of the qualifying species within the site.

3.1.4 Threats & Pressures to Ashdown Forest SAC

The key environmental vulnerabilities are summarised in the section on the Ashdown SPA below, because these are the same for both European sites.

3.2 Ashdown Forest Special Protection Area

3.2.1 Introduction

The mosaic of habitats, and specifically the heath and woodland, in Ashdown Forest harbours a high species richness of birds. These include woodland specialists (e.g. woodcock, tree pipits, siskins, lesser redpoll) as well as various birds of prey (e.g. buzzards, sparrowhawk, hobby). However, most notably, Ashdown Forest harbours specialist species that critically depend on the heath for survival, including nightjar and Dartford warbler.

The Dartford warbler depends on mature, dry heath habitats (especially gorse) in good condition for surviving the winter. It is a ground-nesting bird that builds a grassy, cup-shaped nest under the protective cover of dense heather or gorse. Similarly, nightjar usually build their nests in small gaps in dry heather, which provide shelter and protection from potential predators. Both species depend on the rich invertebrate fauna that is supported by the heath.

3.2.2 Features of European interest[12]

This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:

Annex I breeding species:

- European nightjar (*Caprimulgus europaeus*) – 35 pairs (1% of the breeding population)
- Dartford warbler (*Sylvia undata*) – 29 pairs (1.8% of the breeding population)

3.2.3 Conservation Objectives[13]

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

[12] Features of European Interest are the features for which a European site is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive; available: http://jncc.defra.gov.uk/default.aspx?page=2052 [Accessed 12/04/2019].

[13] Natural England (2014) European Site Conservation Objectives for Ashdown Forest SPA Site Code: UK9012181 http://publications.naturalengland.org.uk/publication/6399918323269632 [accessed 12/04/2019]

3.2.4 Threats & Pressures to Ashdown Forest SPA / SAC[14]

The key environmental pressures for the site affecting the wet heathland are:

- Change in land management
- Air pollution: impact of atmospheric nitrogen deposition

The key environmental threat for the site affecting European nightjar and Dartford warbler are:

- Public Access/Disturbance
- Hydrological changes

[14] Natural England (2014) Ashdown Forest Site Improvement Planhttp://publications.naturalengland.org.uk/file/5534055007256576 http://publications.naturalengland.org.uk/file/6679502935556096 [accessed 12/04/2019]

4. Test of Likely Significant Effects

4.1 Introduction

The full Likely Significant Effects assessment of strategic policies within the TWB draft Local be found in Appendix 1. The full Likely Significant Effects assessment of site allocations identified within the draft Local Plan can be found in

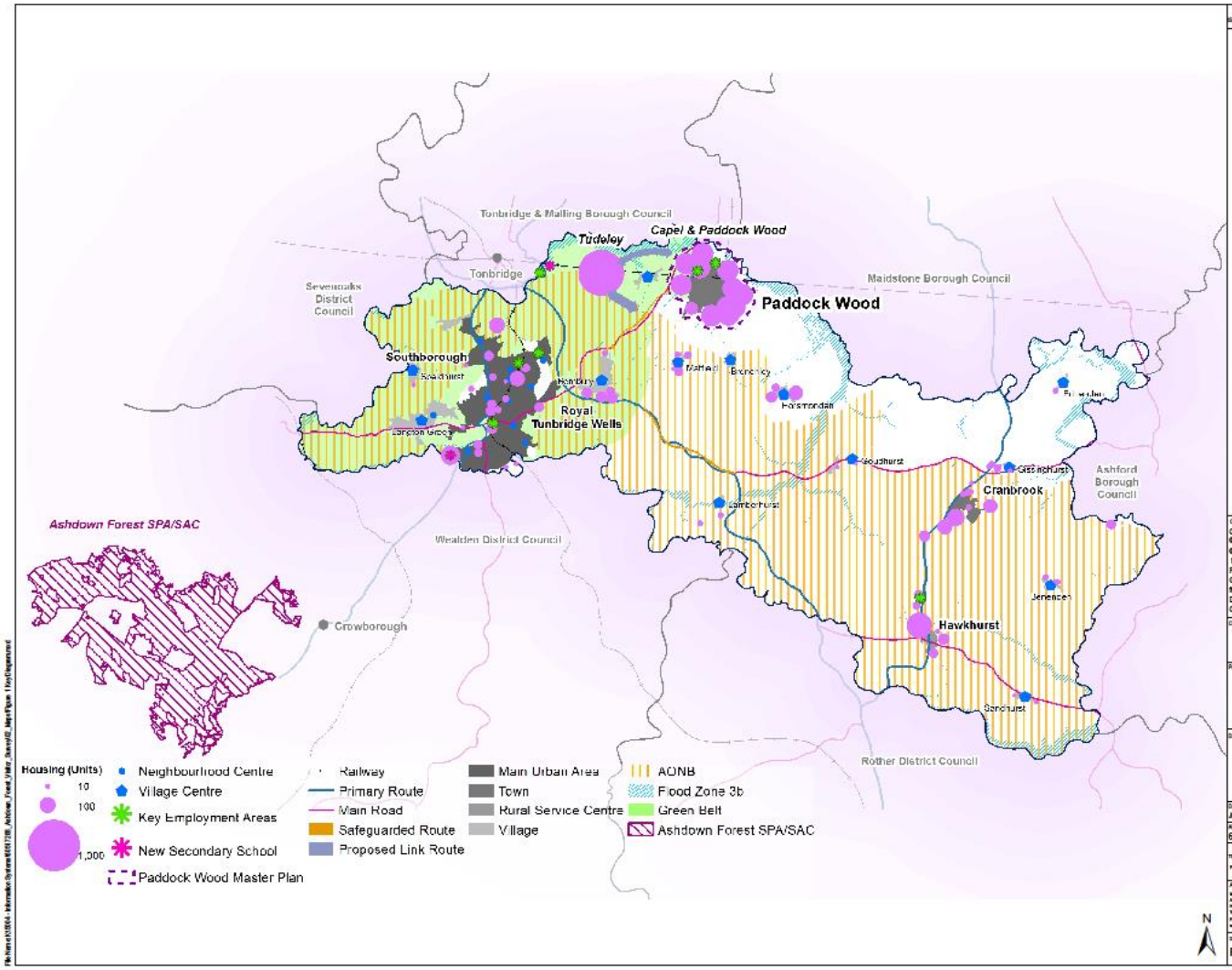

Figure 4: Traffic contribution to concentrations of pollutants at different distances from a road

Appendix 2.

The following paragraphs summarise the relevant impact pathways considered and the outcome of the Likely Significant Effects assessment, which identifies policies and site allocations that (prior to considering the role of mitigation) have potential to result in LSEs upon the Ashdown Forest SPA / SAC.

4.2 Impact Pathways Considered

The following impact pathways are considered relevant to the TWBC draft Local Plan:

- Increase in atmospheric pollution from an increase in traffic flow
- Increased recreational pressure.

4.3 Background to Atmospheric Pollution

Table 1: Main sources and effects of air pollutants on habitats and species[15]

Pollutant	Source	Effects on habitats and species
Sulphur Dioxide (SO_2)	The main sources of SO_2 are electricity generation, and industrial and domestic fuel combustion. However, total SO_2 emissions in the UK have decreased substantially since the 1980's. Another origin of sulphur dioxide is the shipping industry and high atmospheric concentrations of SO_2 have been documented in busy ports. In future years shipping is likely to become one of the most important contributors to SO_2 emissions in the UK.	Wet and dry deposition of SO_2 acidifies soils and freshwater, and may alter the composition of plant and animal communities. The magnitude of effects depends on levels of deposition, the buffering capacity of soils and the sensitivity of impacted species. However, SO_2 background levels have fallen considerably since the 1970's and are now not regarded a threat to plant communities. For example, decreases in Sulphur dioxide concentrations have been linked to returning lichen species and improved tree health in London.
Acid deposition	Leads to acidification of soils and freshwater via atmospheric deposition of SO_2, NOx, ammonia and hydrochloric acid. Acid deposition from rain has declined by 85% in the last 20 years, which most of this contributed by lower sulphate levels. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, increased N emissions may cancel out any gains produced by reduced S levels.	Gaseous precursors (e.g. SO_2) can cause direct damage to sensitive vegetation, such as lichen, upon deposition. Can affect habitats and species through both wet (acid rain) and dry deposition. The effects of acidification include lowering of soil pH, leaf chlorosis, reduced decomposition rates, and compromised reproduction in birds / plants. Not all sites are equally susceptible to acidification. This varies depending on soil type, bed rock geology, weathering rate and buffering capacity. For example, sites with an underlying geology of granite, gneiss and quartz rich rocks tend to be more susceptible.
Ammonia (NH_3)	Ammonia is a reactive, soluble alkaline gas that is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but ammonia concentrations are directly related to the distribution of 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. Due to its significantly longer lifetime, NH_4+ may be transferred much longer distances (and can therefore be a significant trans-boundary issue). While ammonia deposition may be estimated from its atmospheric concentration, the deposition rates are strongly influenced by meteorology and ecosystem type.	The negative effect of NH_4+ may occur via direct toxicity, when uptake exceeds detoxification capacity and via N accumulation. Its main adverse effect is eutrophication, leading to species assemblages that are dominated by fast-growing and tall species. For example, a shift in dominance from heath species (lichens, mosses) to grasses is often seen. 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. Half of NO_X emissions in the UK derive from motor vehicles, one quarter from power stations and	Direct toxicity effects of gaseous nitrates are likely to be important in areas close to the source (e.g. roadside verges). A critical level of NOx for all

[15] Information summarised from the Air Pollution Information System (http://www.apis.ac.uk/)

Pollutant	Source	Effects on habitats and species
	the rest from other industrial and domestic combustion processes. In contrast to the steep decline in Sulphur dioxide emissions, nitrogen oxides are falling slowly due to control strategies being offset by increasing numbers of vehicles.	vegetation types has been set to 30 ug/m3. Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) contributes to the total nitrogen deposition and may lead to both soil and freshwater acidification. In addition, NO_x contributes to the eutrophication of soils and water, altering the species composition of plant communities at the expense of sensitive species.
Nitrogen deposition	The pollutants that contribute to the total nitrogen deposition derive mainly from oxidized (e.g. NO_X) or reduced (e.g. NH_3) nitrogen emissions (described separately above). While oxidized nitrogen mainly originates from major conurbations or highways, reduced nitrogen mostly derives from farming practices. The N pollutants together are a large contributor to acidification (see above).	All plants require nitrogen compounds to grow, but too much overall N is regarded as the major driver of biodiversity change globally. Species-rich plant communities with high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication. This is because many semi-natural plants cannot assimilate the surplus N as well as many graminoid (grass) species. 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 involving NOx, volatile organic compounds (VOCs) and sunlight. These precursors are mainly released by the combustion of fossil fuels (as discussed above). Increasing anthropogenic emissions of ozone precursors in the UK have led to an increased number of days when ozone levels rise above 40ppb ('episodes' or 'smog'). 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 both humans and wildlife, and can affect buildings. High O_3 concentrations are widely documented to cause damage to vegetation, including visible leaf damage, reduction in floral biomass, reduction in crop yield (e.g. cereal grains, tomato, potato), reduction in the number of flowers, decrease in forest production and altered species composition in semi-natural plant communities.

The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH_3) and sulphur dioxide (SO_2), and are summarised in Table 1. Ammonia can have a directly toxic effect upon vegetation, particularly at close distances to the source such as near road verges[16]. NOx can also be toxic at very high concentrations (far above the annual average critical level). High levels of NOx and NH_3 are likely to increase the total N deposition to soils, potentially leading to deleterious knock-on effects in resident ecosystems. Increases in nitrogen deposition from the atmosphere can, if sufficiently great, enhance soil fertility and to lead to eutrophication. This often has adverse effects on the community composition and quality of semi-natural, nitrogen-limited terrestrial and aquatic habitats[17] [18].

Sulphur dioxide emissions overwhelmingly derive from power stations and industrial processes that require the combustion of coal and oil, as well as (particularly on a local scale) shipping[19]. Ammonia

[16] http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm.
[17] Wolseley, P. A.; James, P. W.; Theobald, M. R.; Sutton, M. A. **2006.** Detecting changes in epiphytic lichen communities at sites affected by atmospheric ammonia from agricultural sources. Lichenologist 38: 161-176
[18] Dijk, N. **2011.** Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation Global Change Biology 17: 3589-3607
[19] http://www.apis.ac.uk/overview/pollutants/overview_SO2.htm.

emissions originate from agricultural practices[20], with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO_2 or NH_3 emissions will be associated with the available Local Plan Documents. NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). A 'typical' housing development will contribute by far the largest portion to its overall NOx footprint (92%) through the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison[21]. Emissions of NOx could therefore be reasonably expected to increase because of a higher number of vehicles due to implementation of the Local Plan Documents.

According to the World Health Organisation, the critical NOx 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'[22] of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH_3).

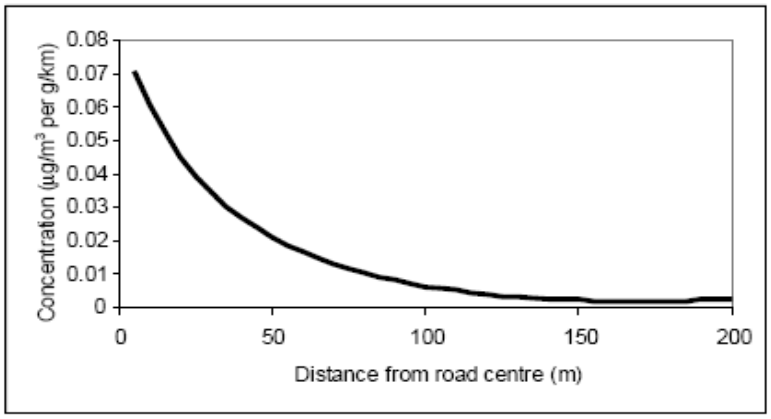

Figure 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT[23])

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[24]. This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected by development outlined in the Local Plan.

Exhaust emissions from vehicles are capable of adversely affecting heathland habitats. Considering this, an increase in net population and employment growth within the Tunbridge Wells District could result in increased traffic through Ashdown Forest SAC, which is designated both for its wet and dry heathland habitats. Appendix 3 discusses the background to this issue in more detail.

4.4 Background to Recreational Pressure

There is growing concern about the cumulative impacts of recreation on key nature conservation sites in the UK, as most sites must fulfill conservation objectives while also providing recreational opportunity. This applies to any habitat, but the key qualifying features in lowland heathland are particularly vulnerable to human disturbance. An English Nature Research Report summarizes the key urban effects on heathland as habitat fragmentation, human disturbance, disturbance by animals linked to human presence (i.e. dogs and cats), increased risk of fires and trampling damage[25]. Various

[20] Pain, B.F.; Weerden, T.J.; Chambers, B.J.; Phillips, V.R.; Jarvis, S.C. 1998. A new inventory for ammonia emissions from U.K. agriculture. Atmospheric Environment 32: 309-313
[21] 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
[22] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur
[23] http://www.dft.gov.uk/ha/standards/dmrb/vol11/section3/ha20707.pdf; accessed 13/07/2018
[24] http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013; accessed 12/05/2016
[25] Underhill-Day, J. 2005. A literature review of urban effects on lowland heaths and their wildlife. English Nature Research Reports 623. 56pp.

research reports have provided compelling links between changes in housing and access levels, and impacts on European protected sites[26] [27].

Particular concerns apply to recreation effects on ground-nesting birds, with many studies concluding that more urban sites support lower densities of key species, such as stone curlew and nightjar[28] [29] This is a direct consequence from the fact that birds are expending energy avoiding the stressor and this is time that is not spent feeding[30]. Overall, disturbance is likely to increase energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately survival of the birds.

Evidence in the literature suggests that the magnitude of disturbance clearly differs between different types of recreational activities. For example, dog walking leads to a significantly higher reduction in bird diversity and abundance than hiking[31]. Scientific evidence also suggests that key disturbance parameters, such as areas of influence and flush distance, are significantly greater for dog walkers than hikers[32]. A UK meta-analysis suggests that important spatial (e.g. the area of a site potentially influenced) and temporal (e.g. how often or long an activity is carried out) parameters differ between recreational activities, suggesting that these are factors that should ideally be considered in ecological assessments[33].

In addition, displacement of birds from one feeding site to others can increase the feeding pressure on available resources, which have to sustain greater numbers of birds[34]. Recreation disturbance in winter can be more adverse because birds are more vulnerable at this time of year due to food shortages. Disturbance can also represent a much more direct threat to survival, such as in the case of predation by dogs and cats. Dogs are often exercised off-lead and roam out of sight of their owners, and have been documented to kill ground-nesting birds.

The available baseline information suggests that Ashdown Forest SPA is vulnerable to recreational pressure because of the risk of reduced breeding success of nightjar and Dartford warbler, which are ground-nesting birds and qualifying features of the SPA. At its closest point, Ashdown Forest is approximately 4.6km from the boundary of Tunbridge Wells Borough, 7.6 km away from Speldhurst (the closest parish with residential site allocations) and 20km from Paddock Wood (the parish with the largest allocated residential site). An increase in recreational pressure due to the implementation of the Tunbridge Wells Borough Local Plan is therefore a potential concern for the populations of bird species which the SPA is designated for.

4.5 Screening of site allocations and strategic policies

The screening for this HRA report was undertaken considering the core recreational catchment of 7km that has been agreed upon for Ashdown Forest SPA / SAC by surrounding authorities and Natural England, based on a visitor survey conducted by Footprint Ecology in 2010 (the results of visitor surveys are discussed further in the Appropriate Assessment section on recreational pressure). In summary, the 2010 survey concluded that visitors to Ashdown Forest originating from beyond 7km distance to the European site, made a negligible contribution to the overall on-site recreational footprint, and thus the core catchment boundary was set at 7km. That was verified during an update survey in 2016.

[26] Liley D, Clarke R.T., Mallord J.W., Bullock J.M. 2006a. The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths. Natural England / Footprint Ecology.
[27] Liley D., Clarke R.T., Underhill-Day J., Tyldesley D.T. 2006b. Evidence to support the appropriate Assessment of development plans and projects in south-east Dorset. Footprint Ecology / Dorset County Council.
[28] Clarke R.T., Liley D., Sharp J.M., Green R.E. 2013. Building development and roads: Implications for the distribution of stone curlews across the Brecks. PLOS ONE. doi:10.1371/journal.pone.0072984.
[29] 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.
[30] Riddington, R. *et al*. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279
[31] Banks P.B., Bryant J.Y. 2007. Four-legged friend or foe? Dog walking displaces native birds from natural areas. Biology Letters 3: 14pp.
[32] Miller S.G., Knight R.L., Miller C.K. 2001. Wildlife responses to pedestrians and dogs. 29: 124-132.
[33] Weitowitz D., Panter C., Hoskin R., Liley D. The spatio-temporal footprint of key recreation activities in European protected sites. Manuscript in preparation.
[34] Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

4.5.1 Site allocations

The following strategic parish and site allocation policies within the TWB Local Plan detail the provision of new homes and / or employment space, and therefore may be relevant to the pressure and air pollution impact pathways (

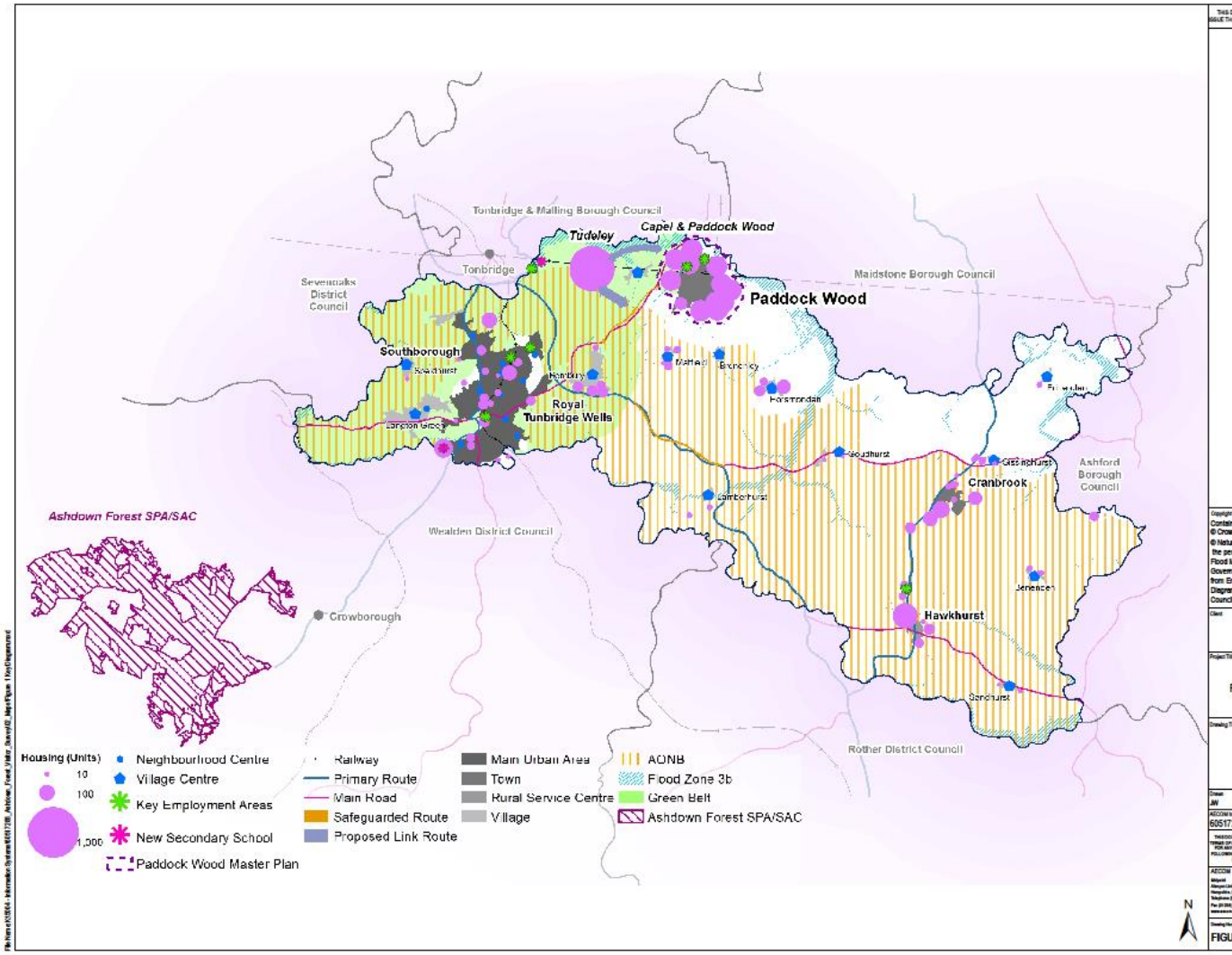

Figure 4: Traffic contribution to concentrations of pollutants at different distances from a road

Appendix 2 for screening results of strategic and site allocation policies):

Individual site allocation policies

Royal Tunbridge Wells

- AL/RTW 1
- AL/RTW 2
- AL/RTW 3
- AL/RTW 4
- AL/RTW 7
- AL/RTW 8
- AL/RTW 10
- AL/RTW 11
- AL/RTW 12
- AL/RTW 13
- AL/RTW 16

- AL/RTW 17
- AL/RTW 18
- AL/RTW 19
- AL/RTW 20
- AL/RTW 21
- AL/RTW 22
- AL/RTW 24
- AL/RTW 25
- AL/RTW 26
- AL/RTW 27
- AL/RTW 28
- AL/RTW 29
- AL/RTW 30
- AL/RTW 31
- AL/RTW 32

Southborough Parish

- AL/SO 1
- AL/SO 2
- AL/SO 3
- AL/SO 4

Paddock Wood Parish

- AL/PW 1 (4000 dwellings in combination with policy AL/CA 3)
- AL/PW 2
- AL/PW 3

Capel Parish

- AL/CA 1
- AL/CA 3 (4000 dwellings in combination with policy AL/PW 1)

Cranbrook and Sissinghurst Parishes

- AL/CRS 1
- AL/CRS 2
- AL/CRS 3
- AL/CRS 4
- AL/CRS 5
- AL/CRS 6
- AL/CRS 7
- AL/CRS 8
- AL/CRS 9
- AL/CRS 10
- AL/CRS 12
- AL/CRS 13
- AL/CRS 14
- AL/CRS 15
- AL/CRS 16

Hawkhurst Parish

- AL/HA 1
- AL/HA 2
- AL/HA 3
- AL/HA 4
- AL/HA 5
- AL/HA 6
- AL/HA 7
- AL/HA 8

- AL/HA 9
- AL/HA 10

Benenden Parish
- AL/BE 1
- AL/BE 2
- AL/BE 3
- AL/BE 4

Brenchley and Matfield Area Parish
- AL/BM 1
- AL/BM 2
- AL/BM 3
- AL/BM 4

Frittenden Parish
- AL/FR 1

Goudhurst Parish
- AL/GO 1
- AL/GO 2

Horsmonden Parish
- AL/HO 1
- AL/HO 2
- AL/HO 3

Lamberhurst Parish
- AL/LA 1
- AL/LA 2

Pembury Parish
- AL/PE 1
- AL/PE 2
- AL/PE 3
- AL/PE 4
- AL/PE 5
- AL/PE 6
- AL/PE 7

Rusthall Parish
- AL/RU 1

Sandhurst Parish
- AL/SA 1
- AL/SA 2

Speldhurst Parish
- AL/SP 1

Strategic development policies for parishes

- STR/RTW 1 (the Strategy for Royal Tunbridge Wells)
- STR/SO 1 (the Strategy for Southborough)
- STR/CA 1 (the Strategy for Capel Parish)
- STR/PW 1 (the Strategy for Paddock Wood)
- STR/CRS 1 (the Strategy for Cranbrook and Sissinghurst)
- STR/HA 1 (the Strategy for Hawkhurst Parish)
- STR/BE 1 (the Strategy for Benenden Parish)
- STR/BM 1 (the Strategy for Brenchley and Matfield Parish)
- STR/FR 1 (the Strategy for Frittenden Parish)

- STR/GO 1 (the Strategy for Goudhurst Parish)
- STR/HO 1 (the Strategy for Horsmonden Parish)
- STR/LA 1 (the Strategy for Lamberhurst Parish)
- STR/PE 1 (the Strategy for Pembury Parish)
- STR/RU 1 (the Strategy for Rusthall Parish)
- STR/SA 1 (the Strategy for Sandhurst Parish)
- STR/SP 1 (the Strategy for Speldhurst Parish)

However, when considering any proposed development within individual parishes or allocated sites in TWB, this is all located more than 7km (in many cases more than 20km) away from Ashdown Forest SPA / SAC. As mentioned before, this is relevant because 7km has been agreed as the core recreational catchment for the European site. Due to there being no LSEs of individual parish or site allocation policies on Ashdown Forest, all of the specific allocations have been screened out from appropriate assessment as being unlikely to result in significant effects on Ashdown Forest SPA / SAC due to being located outside the core recreational catchment of the site.

4.5.2 Strategic policies

The following policies have been screened in for appropriate assessment (Appendix 1 for screening of strategic policies). These policies present potential impact pathways through which a likely significant effect on the Ashdown Forest SAC and / or SPA could result, prior to any consideration of mitigation strategies:

- Policy STR 1: The Spatial Development Strategy
- Policy ED 1: The Key Employment Areas

The main reason for screening in these policies is that they address the cumulative housing or employment development in the TWB and may result in LSEs on Ashdown Forest SPA / SAC through increased motor traffic and / or recreational pressure, in the latter case due to windfall housing that may arise within the 7km zone. We therefore have considered residential and employment growth holistically across the district by screening in the overarching strategic policies.

4.5.3 Local plans to be considered 'in-combination'

It is obligatory to not only assess LSEs of a proposed plan alone, but also to investigate whether there might be 'in-combination' effects with plans proposing development in other authorities surrounding a European protected site. In practice, such an 'in-combination' assessment is of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential.

For the purposes of this HRA, we have identified several districts that have developed their own Local Plans, outlining residential and / or employment growth within their own boundary. These include Tandridge, Sevenoaks, Mid-Sussex, Wealden and Lewes. Table 2 summarises the residential growth allocated within the respective Local Plans for these districts. However, for the purposes of air quality modelling, a prediction of changes in traffic flows on relevant links through Ashdown Forest was made using the Department for Transport's National Trip End Model Presentation Program (TEMPRO), which is an industry standard database tool. TEMPRO draws upon data for each local authority district in the UK regarding changes in population, households, workforce and employment (in addition to data such as car ownership), to produce a growth factor that is applied to the measured flows to 'grow' them to the end of the plan period. As such, growth in other authorities not listed below, such as Rother and Hastings, is also included in the 'in combination' assessment of air quality.

Table 2: Number of houses that are to be delivered in other authorities surrounding Ashdown Forest SPA / SAC, according to adopted Core Strategies and Local Plans

Local Authority	Total housing provided
Mid-Sussex	16,390 (2014-2031)[35]
Wealden	14,228 (2013-2028)[36]
Sevenoaks	12,500 (2015-2035)[37]
Tandridge	6,056 (2014-2033)[38]
Lewes	6,900 (2010-2030)[39]

[35] https://www.midsussex.gov.uk/media/3406/mid-sussex-district-plan.pdf [Accessed 15/04/2019]

[36] http://www.wealden.gov.uk/Wealden/Residents/Planning_and_Building_Control/Planning_Policy/Wealden_Local_Plan/Wealden_Local_Plan_Submission_Library.aspx [Accessed 15/04/2019]

[37] https://www.sevenoaks.gov.uk/info/20069129/current_local_plan [Accessed 15/04/2019]

[38] https://www.tandridge.gov.uk/Portals/0/Documents/Planning%20and%20building/Planning%20strategies%20and%20policies/Local%20plan/Local%20plan%202033/Our-Local-Plan-2033-WEB.pdf [Accessed 15/04/2019]

[39] https://www.lewes-eastbourne.gov.uk/_resources/assets/inline/full/0/257159.pdf [Accessed 15/04/2019]

5. Appropriate Assessment: Ashdown Forest SAC & SPA

5.1 Air Quality at Ashdown Forest Special Area of Conservation and Special Protection Area

The HRA has identified the following policies in the Local Plan providing for cumulative new development within the District, and which need to be considered further:

- Policy STR 1 The Spatial Development Strategy;
- Policy ED 1: The Key Employment Areas

The qualifying features of Ashdown Forest SAC comprise different heathland habitat types (i.e. both dry and wet heaths), all of which are sensitive to air pollution (particularly nitrogen increases) due to their adaptation to nutrient-poor conditions. Increased nutrient inputs have been observed to result in changes of the community structure, such as an increased dominance of grasses[40] and reduced abundance in bryophyte and lichens[41]. Moreover, the qualifying species of Ashdown Forest SPA, the nightjar and Dartford warbler, both rely on heathland habitat for foraging and breeding, and might therefore be indirectly affected by habitat changes that are the result of air pollution.

5.1.1 Commuter traffic

Generally, the impact of air pollutants from traffic is only relevant within 200m of roads. Most of the site allocations are located far from Ashdown Forest SAC and as such there are no Likely Significant Effects on air quality to be expected from individual allocations. However, given the considerable level of planned residential development within the TWB Local Plan (expecting an additional 9,509 net new dwellings between 2016 and 2036 in addition to existing allocations and commitments) and the number of dwellings to be delivered by surrounding districts over a similar timescale, the TWB Local Plan might have significant air quality impacts alone and 'in-combination' with other Local Plans. This is because these allocations will increase the local population and / or the need for motorised travel within the District.

According to Journey to Work data from the 2011 census[42] four of the ten most common destinations for journeys to work arising from TWB are London boroughs, while the others are Tonbridge & Malling, Sevenoaks, Maidstone, Wealden, Ashford and Rother. These ten local authority areas are involved in almost 73.2% of journeys to work from TWB into surrounding districts. Of these destinations, only 1,586 outward journeys (just over 7%) of journeys to work are to Wealden (the only authority on this list likely to involve a journey through Ashdown Forest, although it can be reached via alternative routes depending on destination). However, these data do not include journeys to work that both start and end in Tunbridge Wells and the approximately 40% of commuter trips that are carried out by bike or public transport. Therefore, the actual proportion of regular commuter journeys that might traverse Ashdown Forest SAC is likely to be considerably lower than 7%.

It is clearly unlikely that much journey-to-work traffic originating from TWB will occur on roads that are relevant to Ashdown Forest SAC / SPA. Most transport routes from TWB are likely to lead passengers north up the A26 through the districts of Tonbridge and Malling, and Sevenoaks to then access the main commuting corridors along the M25 and M26. However, a portion of the traffic from Tunbridge Wells is likely to flow along the A26 in the direction of Crowborough, and beyond. We note that the A26 runs directly adjacent to Ashdown Forest SAC beyond Crowborough approx. 12.5km in actual road distance (not a straight-line distance) from TWB district boundary. As such, some of the residential and industrial traffic originating from Tunbridge Wells and destined for settlements in the south (e.g. Uckfield, Eastbourne or Brighton and Hove) may be relevant to Ashdown Forest SAC.

[40] Bobbink R., Roelofs J.G.M. 1995. Nitrogen critical loads for natural and semi-natural ecosystems: The empirical approach. Water, Air and Soil Pollution 85: 2413-2418.
[41] Pescott O.L., Simkin J.M., August T.A. Randle Z., Dore A.J., Botham M.S. 2015. Air pollution and its effects on lichens, bryophytes, and lichen-feeding Lepidoptera: Review and evidence from biological records. Biological Journal of the Linnean Society 115: 611-635.
[42] Available at https://www.nomisweb.co.uk/census/2011/wu03uk [accessed 12/04/2019]

While some 112,000 m^2 of employment space in TWB have already been allocated, it is noted that some of the forecast employment space is not allocated in the current version of the draft Plan. This includes employment space in some of the larger parishes, such as Paddock Wood and Capel. Looking at the likely inflow routes of commuter traffic from settlements in the Wealden District (e.g. Uckfield, Eastbourne and Seaford), it is likely that most journeys will take commuters up the A267 to their destinations in TWB[43]. This road is located east of Ashdown Forest, far beyond the 200m distance that is relevant to the air pollution impact pathway. Considering the general results of the air quality study and the likely routes to work taken by people commuting to TWB, the employment allocations detailed in the TWB Plan are not likely to result in adverse impacts on Ashdown Forest SPA / SAC.

5.1.2 Results of Air Quality Modelling 'in combination'

Air quality modelling was undertaken for Ashdown Forest in March 2018 by AECOM on behalf of Lewes District Council and South Downs National Park Authority for the period 2017-2033. Both Sevenoaks District Council and TWBC then also commissioned AECOM to undertake an analysis of their respective plans using the same traffic and air quality models (see Appendix 3 for the full air quality analysis report). The Tunbridge Wells Borough Air Quality Impact Assessment report aimed to analyse air quality impacts that are the result of development proposed in the TWB Local Plan, while considering the 'in-combination' effect of traffic changes due to other Local Plans (e.g. Lewes District, Sevenoaks District, and South Downs National Park). Ultimately, this exercise intended to determine whether a potential increase in traffic from TWB might affect the heathland components in Ashdown Forest SAC alone or 'in-combination' with other plans.

In summary, this report analysed three key pollutants shown to affect ecosystems, namely ammonia (NH_3), oxides of nitrogen (NO_X) and total nitrogen deposition. At the two transects where heathland is closest (< 5m) to a major road (A275 at Wych Cross), the 2033 NH_3 levels were predicted to fall below 1 μm^{-3} within 5m of the road. At these same nearest areas of heathland (where the effect of the road is therefore expected to be greatest) the annual critical level for NOx is not forecast to be breached even allowing for traffic growth. At the other link affected by traffic from Tunbridge Wells Borough (the A26), the contribution of TWB Local Plan to NO_X concentrations at the closest edge of the SAC is predicted to be 0.2 ugm^{-3} at the nearest area of heathland (40m from the road) by 2033 and once again annual NOx concentrations are not forecast to breach the critical level at this location. Furthermore, when considering the expected improvement in emission factors, all investigated roadside links are expected to experience a significant reduction in NO_X by 2033.

The worst-case total 'in combination' nitrogen dose forecast due to additional traffic at the closest areas of heathland to the A275 was predicted to be 0.3 kgN/ha/yr. The TWB Local Plan would make a negligible contribution of 0.04 kgN/ha/yr to nitrogen deposition along the A275. Furthermore, despite the projected traffic growth, nitrogen deposition rates at the closest areas of heathland along all links are expected to fall between 1.4-1.5 kgN/ha/yr, due to improvements in NOx emission factors and baseline deposition rates over the same timetable. Based on published research into dose-response relationships in heathland, a dose of 0.3 kgN/ha/yr this would be c. 25% of the nitrogen 'dose' that might result in a significant retardation of any improvement in species richness that might otherwise be observed at the forecast background deposition rates and is not expected to result in a significant change in grass cover.

Since the overall trend to 2033 is expected to be a positive one and will not be retarded to an ecologically significant extent either by all forecast traffic growth 'in combination' or by the TWB Local Plan, there is thus not considered to be an adverse effect in combination with growth arising from surrounding authorities.

The modelling demonstrates that there will be a net decreasing trend in NOx and nitrogen deposition rates to heathland within the SAC along the modelled links. Accordingly, the Local Plans will not have significant in-combination effects on the SAC by way of contributing to any net increase in nitrogen deposition. However, the conclusion of no adverse effects is not dependent simply on the fact that a net improvement in nitrogen deposition is forecast but <u>also</u> on the fact that the worst-case nitrogen dose to heathland forecast from <u>all</u> expected traffic growth in combination is small in terms of its ecological effect (i.e. not materially retarding vegetation recovery, and thus progress to favourable

[43] Based on routes suggested by popular navigation software (e.g. Google Maps, Waze)

conservation status compared to a situation without that dose) and even this worst-case dose is only forecast to occur to heathland 5-10m from one link (the A275), affecting a very small part of the SAC (c.0.9ha of heathland or 0.06% of the heathland in the SAC[44]), all of which lies in a narrow band c. 5m wide very close to the road. Even this small effect is not a net deterioration but a slight slowing in the rate of vegetation recovery that might otherwise occur. The remaining 99.94% of heathland in the SAC will be affected to a much smaller extent than even this small 'in combination' dose.

The report ultimately concludes that since a) the context for the analysis is that air quality in 2033 is forecast to be significantly better than in 2017 notwithstanding the precautionary assumptions made about both growth and improvements in vehicle emissions factors, b) no significant in combination retardation of vegetation improvement at the closest and most affected areas of heathland is expected and c) the contribution of TWB Local Plan to the 'in combination' scenario is negligible, the modelling does not provide any basis to conclude an adverse effect on integrity of Ashdown Forest SAC or SPA from growth in Tunbridge Wells Borough over that period in combination with other plans. Since no net adverse effect on integrity is forecast, no mitigation would be required.

The Tunbridge Wells Local Plan period has been adjusted since the modelling was undertaken in spring 2018, to cover the period 2016-2036 rather than 2013-2033. The 2018 air quality assessment modelled a further 12,725 dwellings in the borough excluding completions, whereas the Regulation 18 Local Plan proposes a further 13,224 dwellings excluding completions[45]. So the total number of dwellings for the borough has increased slightly (4%), although it is also spread over a slightly (3 years) longer period, as the 2018 modelling assumed this total would be achieved by 2033 rather than 2036. More importantly, the distribution of expected growth in the borough has changed significantly in preparing the Regulation 18 Local Plan.

To assess the effect of this change in both number of dwellings and distribution on the previous model results, AECOM traffic modellers re-ran the traffic distribution model. The same trip rates were applied to the increased amount of growth to determine the overall level of trips arising across each modelled distribution area across the borough (TW1 to TW4) to the relevant parts of the A26 and A275. This demonstrated that the change in number and distribution of dwellings would result in considerably more trips as a result of additional housing development in TW1, more trips in TW3, fewer trips in TW4 and considerably fewer trips in TW2, than was calculated using the 2018 distribution and growth quantum.

	Group	Proportion of All Trips		Original		Re-Run		Net Difference	
		A26	A275	A26	A275	A26	A275	A26	A275
Home to Work	TW1 (Centre)	1.8%	0.3%	93	12	237	33	+144	+21
	TW2 (West)	2.2%	0.2%	248	24	40	4	-208	-20
	TW3 (Rural East)	0.4%	0.1%	31	6	53	10	+22	+4
	TW4 (Paddock/ Pem)	0.4%	0.1%	169	27	164	26	-5	-1
Total				**542**	**69**	**495**	**73**	**-47**	**+4**

There is anticipated to be an overall reduction in trips on the A26 due to the reduced housing allocation within TW2 (West). Whilst more houses are allocated within TW1 (Centre) and TW3 (Rural East), the associated additional trips which would be expected to use the A26 are more than offset by the forecast reduction in trips associated with TW2. There are relatively modest changes associated with TW4 (Paddock/ Pembury) which does not have a significant bearing on the results. There is anticipated to be a very slight increase in trips on the A275 due to the increased housing allocation within TW1 (Centre) and TW3 (Rural East). Whilst fewer houses are allocated within TW2 (West), the associated reduction in trips on the A275 is not quite offset by the forecast increases in trips as a result of TW1 and TW3. Again, there are relatively modest changes associated with TW4 (Paddock/ Pembury) which does not have a significant bearing on the results.

[44] According to the Natura 2000 data sheet there are 1,611 ha of heathland in the SAC.
[45] Completions are excluded to avoid double-counting as they can reasonably be considered to be already contributing traffic to the network and thus be part of the baseline flows

In summary therefore, the change in distribution effectively offsets the increase in housing numbers and the 2018 model results remain essentially valid. Moreover, the forecast worst-case nitrogen dose attributable to growth in Tunbridge Wells Borough is small, and applies to a sufficiently small part of the SAC, that a rerun of the model would not materially alter the in combination dose and thus the conclusions of the assessment. The model will nonetheless be re-run for completeness to support the Regulation 19 Local Plan but it can be seen that it is not expected to change the model results.

It can therefore be concluded that no adverse effect upon the integrity of Ashdown Forest SAC is expected to result from development provided by the Tunbridge Wells Local Plan, even in combination with other plans and projects.

5.2 Recreational Pressure on Ashdown Forest Special Protection Area and Special Area of Conservation

The TWB Local Plan sets out the housing targets for individual parishes in section 5 ('Place Shaping Policies'). Due to the likely small contribution to the overall recreational pressure in Ashdown Forest SPA / SAC, these are not considered individually relevant to this HRA. Instead the cumulative housing development across the borough is considered 'alone' and 'in-combination' with other plans with regards to potentially increasing recreational pressure in Ashdown Forest SPA / SAC.

We have identified the following policy in the Local Plan that provides a quantum and the location of new residential development within the District, which needs to be considered for Appropriate Assessment:

- Policy STR 1 The Spatial Development Strategy.

5.2.1 Background to evidence base

In 2010 a visitor survey of Ashdown Forest SAC and SPA was undertaken[46]. This survey fed into HRA reports of strategic documents at the time. These essentially identified a strategy broadly analogous to that devised for the Thames Basin Heaths; namely the identification of a series of zones around the SAC/SPA each of which triggered a combination of provision of alternative greenspace and improved access management. At that time, a 7km 'outer zone' for Ashdown Forest SAC and SPA was agreed with Natural England[47]. Affected authorities that provided development within this affected 7km 'zone' were required to provide a financial contribution to Suitable Alternative Natural Greenspaces (SANGs), an access strategy (SAMM) for Ashdown Forest and a programme of monitoring and research. This approach was supported by Natural England and the Ashdown Forest Conservators.

In 2016 Footprint Ecology undertook a further visitor survey[48] on behalf of the participating Councils, to provide comprehensive and current data on recreational use of Ashdown Forest. Results from the survey were also to inform the strategic implementation of access management, to tailor the long-term management strategy, and to inform the design and management of SANGs. Ensuring the latter is done appropriately is essential for SANGs to divert recreational pressure away from Ashdown Forest. Overall, the 2016 survey has resulted in a review of the zones, but the 7km zone is still recognised as the core zone requiring mitigation delivery.

5.2.2 Overview of visitor survey results

When considering the relevance of the visitor survey results for the TWB Local Plan HRA, interviewees that visit regularly (i.e. monthly, weekly or daily) are clearly most relevant, because these potentially represent a regular disturbance issue. In the following we therefore focus on results that relate to such regular visitors.

The 2016 survey identified that the 7km zone still captured most of the visitors (including the majority of regular site users) to the SAC/SPA. The survey identified that c. 81% of survey respondents whose

[46] Clarke RT, Sharp J & Liley D. 2010. Ashdown Forest Visitor Survey Data Analysis (Natural England Commissioned Reports, Number 048)
UE Associates and University of Brighton. 2009. Visitor Access Patterns on the Ashdown Forest: Recreational Use and Nature Conservation
[47] UE Associates. October 2011. Habitat Regulations Assessment for the Mid-Sussex District Plan
[48] Liley, D., Panter, C. & Blake, D. (2016). Ashdown Forest Visitor Survey 2016. Footprint Ecology Unpublished report.

postcodes could be mapped lived within 7km of the SAC/SPA boundary[49]. 75% of interviewees that were visiting weekly, lived within 5,952km of Ashdown Forest. It was further highlighted that most interviewees (84%)[50] whose postcodes were mapped were from Wealden District or Mid-Sussex District.

5.2.3 Survey results as relevant to Tunbridge Wells Borough

Overall, of the 452 visitors surveyed, a total of 23 visitors had travelled from Tunbridge Wells Borough, accounting for 5% of the visitors interviewed. While this highlights there is a recreational flux from Tunbridge Wells to the Ashdown Forest SPA / SAC, this is clearly considerably lower than for other surrounding authorities. Furthermore, only one visitor originated within the 7km 'mitigation buffer' which has been identified and agreed with all participating local authorities and Natural England on the basis that mitigating all net new housing within that zone will render insignificant the recreational effect of all planned housing growth, irrespective of location.

This is underlined by the fact that the percentage of frequent Ashdown Forest visitors captured if the whole of Tunbridge Wells Borough was included in the mitigation strategy (78.8%) is only marginally higher than if Tunbridge Wells Borough was excluded entirely (78.6%).

Approximately 80% of the Tunbridge Wells interviewees came from the settlements Langton Green, Rusthall and Royal Tunbridge Wells, all of which lie beyond the proposed 7km buffer zone. Langton Green is the closest, located approx. 7.4km from the boundary of the SPA / SAC.

The very low overall contribution of Tunbridge Wells Borough residents to the recreational footprint in Ashdown Forest is likely to be for the following reasons:

- Residents have to travel considerable distances between their homes and Ashdown Forest (7.4km – 14km).
- There are multiple large accessible natural greenspaces closer to these settlements, including Broadwater Forest (Warren), Whitehill Wood, Oxpasture Wood, Pembury Walks, Hargate Forest, Tunbridge Wells & Rusthall Common and Tudeley Woods Nature Reserve. Residents pass some of these sites on their way to Ashdown Forest.
- As shown in several previous studies, distance is a predictor of both the likelihood and frequency of visits. People from further away are less likely to visit and, if visiting, tend to visit infrequently. As such, residents from Tunbridge Wells are less likely to contribute any meaningful recreational pressure in Ashdown Forest.
- Dog-walking, exercising and walking are the most frequently undertaken activities and tend to source their participant pool from under 5km. Therefore, it is likely that the Ashdown Forest SPA / SAC will not be the primary target for these key recreational activities.

Nevertheless, the settlements of Langton Green, Rusthall and Royal Tunbridge Wells do make a small contribution to the visitor pressure in the SPA / SAC, including 3% of all dog-walkers (9 / 302 interviewees) and frequent visitors (11 / 364 interviewees based on people visiting at least once a month).

5.2.4 Effects alone and 'in-combination'

Policy STR 1 (The Spatial Development Strategy) details proposed housing that is located at a significant distance from the SPA / SAC, being more than 7km distant at their closest. However, a small proportion of the dwellings projected to be built within the District will be classed as unallocated windfall and therefore some *could* be located within 7km of Ashdown Forest SAC/SPA, the zone within which 78% of all visitors to the Forest derive. There are several smaller settlements (e.g. Ashurst, Stone Cross and The Green) located within the 7km zone of influence for Ashdown Forest SPA / SAC. However, currently no site allocations are proposed here and, given the small size of these settlements, it is likely that only small-scale windfall applications would occur here. These could,

[49] A total of 353 respondents out of a total of 434 responses. This is a relevant statistic because the third quartile (75%) is the most widely used basis across the UK to define the primary recreational zone around European sites for which mitigation for additional residents should automatically be provided.
[50] Excluding those who were on holiday or staying with friends or family

however, operate 'in-combination' with development within 7km of the SPA / SAC set out in the Local Plans for Wealden District and Mid-Sussex District in particular.

To be consistent with other authorities and conform to the Local Planning Authority's adopted Ashdown Forest Practice Note, TWB have adopted a policy (EN 13 – Ashdown Forest Special Protection Area and Special Area of Conservation) confirming the 7km mitigation zone around Ashdown Forest SPA / SAC. This policy states that '*All development that results in a net increase in housing within the 7km defined zone of influence…, will provide a Strategic Access Management and Monitoring (SAMMs) contribution to address the impact of visitors from new development on Ashdown Forest.*' This is a positive policy because it includes any net increase in housing and considers effects on the Ashdown Forest SAC / SPA. It is considered that, given the small contribution the district makes to recreational pressure in Ashdown Forest, a larger mitigation zone would capture a disproportionately large area of the district relative to the small contribution made by TWB residents to the overall recreational footprint in Ashdown Forest without being materially more effective in addressing recreational pressure. Similarly, due to the distance of the main points of visitor origin in Tunbridge Wells Borough from Ashdown Forest SAC, it is considered that the provision of SANG would be ineffective in reducing visits to Ashdown Forest SAC by residents of Tunbridge Wells Borough. Clearly the few residents who do choose to regularly visit Ashdown Forest specifically wish to visit that site and are unlikely to be drawn to alternative locations.

While there is strong scientific evidence to conclude that TWB's contribution to recreation in Ashdown Forest is insignificant, policy EN 13 ensures that the effect of any net new housing within 7km will be subject to appropriate mitigation, according to the SAMM approach adopted by surrounding authorities. Policy EN 13 also outlines that if proposals for major development within the 7km zone of influence *'will be considered on a case by case basis in accordance with the requirements of the Habitats Directive to determine what, if any, mitigation is required, including SANGs'*. This ensures that even in the event of major housing development in the south-western tip of the borough, which is not currently proposed, effects on Ashdown Forest SPA / SAC would be mitigated appropriately.

5.2.5 Summary

Overall, it is concluded that the TWBC Local Plan will not result in an adverse effect on the integrity of the Ashdown Forest SPA / SAC through recreational pressure / disturbance either alone or 'in-combination' with other Local Plans.

6. Summary of Conclusions

6.1 Impact pathway: Atmospheric pollution

The qualifying features of Ashdown Forest SAC comprise heathland habitat types, all of which are sensitive to air pollution. Moreover, the qualifying species of Ashdown Forest SPA, the nightjar and Dartford warbler, both somewhat rely on heathland habitat for foraging and breeding, and are therefore indirectly impacted by increases in atmospheric pollution through changes to habitat. Despite several significant roads, most notably the A22, A26 and A275, traversing the SAC, the Air Quality Modelling Report found that changes to roadside air quality within 200m of Ashdown Forest SAC and SPA as a result of the projected development outlined in the TWB Local Plan in combination with other plans and projects are expected to result in a negligible impact (possibly in the form of a slight retardation effect of air quality improvement) on a small part of the designated site.

Therefore, it can be concluded that there **will be no adverse effects upon the integrity of Ashdown Forest SPA / SAC as a result of increased atmospheric pollution resulting from the Borough of Tunbridge Wells Local Plan.**

6.2 Impact pathway: Recreational pressure

Ashdown Forest SPA is vulnerable to recreational pressure because of the risk of reducing the breeding success of nightjar and Dartford warbler, which are ground nesting birds and the qualifying features of the SPA. However, Ashdown Forest is over 7km from Speldhurst parish, the nearest settlement with residential allocations in TWB, and research suggests that a very small proportion of the visitors to Ashdown Forest are from Tunbridge Wells. A visitor survey of Ashdown Forest carried out in summer 2016 found that, of 452 visitors surveyed, a total of 23 people surveyed had travelled from TWB, which accounts for 5% of the total visitors to Ashdown Forest SPA / SAC. Nonetheless, in order to be consistent with other authorities, TWB have chosen to be precautionary and confirmed in Policy EN 13 (‘Ashdown Forest Special Protection Area and Special Area of Conservation’) that a SAMMs contribution will be required for any development within the 7km zone whilst also addressing the development’s impact on the SAC/SPA.

Therefore, it can be concluded that there **will be no adverse effects upon the integrity of Ashdown Forest SPA / SAC as a result of increased recreational pressure resulting from the Borough of Tunbridge Wells Local Plan.**

7. Appendices

Appendix 1: Screening of Plan Policies

Appendix 1 presents an HRA screening assessment of all the policies within the draft Local Plan, alone and 'in-combination' with other plans. Where policies have been coloured green in the 'Likely Significant Effect' columns, this indicates that the policy does not contain potential impact pathways linking to European designated sites and has been screened out from further consideration. Where policies have been coloured orange in the 'Likely Significant Effect' columns, this indicates that the policy provides for potential impact pathways linking to European designated sites and has been screened in for further consideration in this report.

Policy number/ name	Policy detail	Likely Significant Effect Alone	Likely Significant Effect 'In-Combination' with other plans
Section 4. The Development Strategy and Strategic Policies			
Policy STR1: The Development Strategy	The broad development strategy for the borough is illustrated on the Key Diagram (Figure 4). The Local Plan will allocate land to meet the identified needs of the borough over the Local Plan period as set out in Table 3 below. The Council will review the retail capacity of the borough approximately every five years, and any future studies within the plan period will be included in any review of the Local Plan, or any updated requirements will become a material planning consideration in the interim. Development will be provided in the borough on the following basis: 1. For Royal Tunbridge Wells and Southborough: a. Planned expansion of the Main Urban Area for new residential development, extensive infrastructure, including public realm enhancements, transport provision, a new secondary school and expanded secondary and primary schools, a new sports hub, as well as a range of other community facilities, including new and expanded health facilities; b. Enhanced town centre development at Royal Tunbridge Wells, including a new theatre, a cultural and leisure hub (including art gallery, museum, and	Likely Significant Effects Presents This policy identifies the quantum and the location of 10,097 new homes, 37,500 m^2 of retail space and 90,000 m^2 of employment floorspace to be provided during the Plan period of 2013-2036. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution	Likely Significant Effects Presents This policy identifies the quantum and the location of 10,097 new homes, 37,500 m^2 of retail space and 90,000 m^2 of employment floorspace to be provided during the Plan period of 2013-2036. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution

	library), and the provision of flexible retail, leisure, and cultural uses, as well as new office provision and residential development as part of a mix of uses, in order to secure a vibrant and resilient town centre to endure over the plan period; c. A prestigious new business park will be located to the north of North Farm/Kingstanding Way that is well connected to the improved A21, providing a range of employment floorspace and jobs to meet identified needs. The site will make a substantial contribution to the need for new employment space over the plan period. Other employment, including leisure development, will be encouraged at North Farm/Kingstanding Way; 2. Expansion at the settlement of Paddock Wood (including land in the eastern part of Capel parish) following garden settlement principles to deliver housing and employment growth, new and expanded education facilities, and provide strategic flood risk solutions to reduce flood risk and provide betterment to particular existing areas. Regeneration of the town centre to provide a vibrant and viable new centre for the communities it will serve, as well as the delivery of a range of other community facilities and infrastructure, including new health facilities, a sports hub, new primary schools, expansion of the existing secondary school, and potentially the off-line A228 (i.e. the Colts Hill by-pass); 3. A new garden settlement at Tudeley Village of 2,500-2,800 houses, to deliver approximately 1,900 new homes during this plan period, as well as a package of infrastructure measures, including new education facilities to serve the settlement itself and the wider catchment area, and strategic flood risk solutions to reduce existing flood risk and provide betterment to particular areas; 4. New development at Hawkhurst to provide a range of new homes, as well as the delivery of significant infrastructure improvements in the form of a relief road from Cranbrook Road to Rye Road, providing significant improvements to the crossroads in the centre of Hawkhurst (Highgate), and associated public realm improvements. A package of other community benefits will also be provided in the form of new health and other local facilities, as well as employment growth by way of an extension to the existing Key Employment		

	Area at Gill's Green; 5. Further development at Cranbrook to provide new homes based on growth around Cranbrook itself, Sissinghurst, and at Hartley. Community benefits will be provided, to include new healthcare and other facilities; 6. Development at the other settlements across the borough within their respective Limits to Built Development boundaries and through the delivery of allocations as per Table 3 below, and other suitable windfall developments; 7. The release of Green Belt around the settlements of Royal Tunbridge Wells, Southborough, Paddock Wood, Pembury, and in the parish of Capel, to deliver development allocated in this Local Plan; and 8. Where major development is provided for at specific identified sites in the AONB, this is only where the tests set out in the NPPF are met. An overarching strategic place shaping policy for each parish and for Royal Tunbridge Wells is provided within Section 5 of this Draft Local Plan, followed by detailed site allocation/designation policies for individual parishes and settlements.		
Policy STR2: Presumption in favour of sustainable development	At the heart of the development strategy for Tunbridge Wells borough is a desire to deliver sustainable development: growth that is not for its own sake, but growth that brings benefits for the environment and all sectors of the community (for existing residents, businesses, and organisations as much as for new ones) through the following approach: 1. When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF*; 2. Planning applications that accord with the policies in the adopted Local Plan (and, where relevant, with policies in made neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise;	There are no LSEs of this policy alone. This is a policy outlining the development strategy policy of the draft Local Plan. It contains the positive provision of 'presumption in favour of sustainable development'. There are no impact pathways present and this	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	and 3. Where there are no policies relevant to the application, or the policies that are most important for determining that application are out of date at the time of making the decision, then the Council will grant permission unless material considerations indicate otherwise, taking into account whether: • the application of policies in the NPPF* that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or • any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits when assessed against the policies in the NPPF* taken as a whole. * or subsequent iteration of the NPPF, or replacement national policy.	policy can thus be screened out.	
Policy STR3: Masterplanning and use of Compulsory Purchase powers	Development of strategic and larger scale developments, as identified within this Plan, together with some other specific sites, will be planned through a comprehensive masterplanning process. Preparation of masterplans will involve the active participation and input of all relevant stakeholders, including the Council, landowners, developers, the local community, town or parish councils, service providers, environmental organisations, and other interested parties. Masterplans will be developed in consultation with the Council prior to the submission of a planning application. In order to bring forward development of the sites allocated in a timely and comprehensive way, the Council will, where appropriate, use its Compulsory Purchase Order powers to enable the sites and development to be delivered to achieve the strategic objectives and development strategy set out within the Local Plan. It will also, where appropriate, work with other authorities that are using their Compulsory Purchase Order powers.	There are no LSEs of this policy alone. This is a development management policy relating to the protection of landscape character. This is a positive policy that protects, preserves and enhances landscape character. There are no linking impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy STR 4: Green Belt	The release of Green Belt land has been undertaken through this Local Plan, and is detailed where relevant in the place shaping policies in Section 5.	There are no LSEs of this policy alone.	There are no LSEs of this policy 'in-combination' with other plans.

	In order to protect the remaining Green Belt, as defined on the draft Policies Map, the Council will consider the proposal against the relevant policy in the National Planning Policy Framework, or the national planning policy at the time a planning application is being determined.	This is a development management policy relating to the preservation of the Green Belt. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy STR 5: Essential Infrastructure and Connectivity	It is essential that all new development will be supported by the provision of the necessary infrastructure, services, and facilities that have been identified to serve the needs arising from new development, and will be provided in the following ways: 1. Where development creates a requirement for new or improved infrastructure beyond existing provision, developers will be expected to provide and/or contribute significantly towards the additional requirement being provided, to the agreement of the Council; 2. Detailed specifications of the site-specific contributions required are included in the overarching place shaping policies and individual site allocation policies. Development proposals should seek to make provision for all the land required to accommodate any additional infrastructure arising from that development; 3. Dedicated planning agreements will be used to provide a range of site-specific mitigation in accordance with the Section 106 tests, which will normally be provided on-site but may, where appropriate, be provided in an off-site location or via an in lieu financial contribution. In some cases, separate agreements with utility providers may be required; 4. Infrastructure schemes that are brought forward by service providers will be encouraged and supported where they are in accordance with other policies	There are no LSEs of this policy alone. This is a development management policy relating to the provision of infrastructure and connectivity. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	in the Draft Local Plan; 5. New residential and commercial development will be supported if sufficient infrastructure capacity is either available, or can be provided in time to serve the development. For those strategic sites where the provision of infrastructure is required to provide 'betterment' to particular areas, the delivery of this will be agreed through a masterplanning process; and 6. Due to the complexity of monitoring contributions and the delivery of infrastructure, the Council will require the payment of a monitoring fee, which will be secured through Section 106 agreements. The means as to how this will be calculated will be set out in a Supplementary Planning Document or Practice Note. The following are the strategic priorities for infrastructure provision or improvements within the borough to deliver and support the growth set out in this Draft Local Plan: **Transport** This is included within Policy STR 6 below. **Education** Provision will be made for sufficient school places in the form of expanded or new primary and secondary schools, together with early years and childcare facilities, with all relevant development contributing to these through land and/or contributions, and strategic developments providing land and contributing to the cost of delivering new schools. Any new provision will be determined through consultation with Kent County Council. **Health** Ensure that essential healthcare infrastructure is provided as part of new development in the form of new or expanded healthcare facilities, including primary and acute care, and any other supporting healthcare facilities that the Council is made aware of through consultation with the West Kent Clinical Commissioning Group or other relevant providers.		

	Water Providing an adequate supply of fresh water and dealing with the removal of foul water is essential across the whole borough as part of any planned growth, and Southern Water and Southeast Water as the regulatory bodies have been fully consulted as part of the plan preparation process. Additionally, taking into account flood risk and the implications of proposed growth in areas that are at risk of flooding, and ensuring that any risk is not exacerbated but in fact improved, is a key element of the Plan. Close liaison is required with Kent County Council as the Lead Local Flood Agency and the Environment Agency to ensure that adequate consideration is given to any development in flood prone areas and that appropriate mitigation and compensatory measures are put in place where necessary. **Digital infrastructure and utilities** Ensure that the provision of digital infrastructure and other utilities is supported, including that provided strategically, and for developers to ensure that such infrastructure is provided within sites from their point of connection to the strategic network to individual buildings. **Green, grey, and blue infrastructure** Multi-functional green, grey, and blue infrastructure will be provided in both the rural and urban areas through a strategically planned and delivered network of high quality formal and informal green spaces and landscape features, including parks, open spaces, playing fields, play spaces, woodlands, green routes, water features, allotments, and community orchards. The Council will prepare a Green Infrastructure Framework to guide the provision of green, grey, and blue infrastructure. **Cultural infrastructure** Infrastructure will be provided to mitigate the impact on cultural need through the provision of buildings and spaces that allow for increased or improved cultural opportunities, and through the provision of public art. The Council's Infrastructure Delivery Plan (IDP) will support the growth in the Draft Local Plan. The IDP identifies the scope of infrastructure to be provided, the phasing of such infrastructure linked to the planned development, and the		

	mechanisms by which the Council considers that the infrastructure will be delivered, including the use of Section 106 agreements, Community Infrastructure Levy, or equivalent policy as applicable.		
Policy STR 6: Transport and Parking	Future development will be delivered within close proximity to accessible locations of existing settlements across the borough to help reduce the need to travel. Where travel is necessary, active travel (walking and cycling) will be prioritised, particularly in the urban areas, and then public transport (rail, bus, car club, car share, and taxi) as an alternative means of transport to the private car. All sustainable modes of transport (including active travel, the use of public transport, and electric vehicles) will be facilitated to reduce dependence on emissions-producing private car use, and which will also support opportunities for improving air quality within the borough in accordance with the latest Air Quality Action Plan and the developing Kent and Medway Energy and Low Emission Strategy. This will be done through working with partners to: 1. Continue to develop and provide an integrated strategic cycle network in accordance with the latest Cycling Strategy and Local Cycling and Walking Infrastructure Plan, as well as enhance routes such as Public Rights of Way for users of non-motorised transport. This will include networks within settlements, particularly Royal Tunbridge Wells, Southborough, Langton Green, Rusthall, Pembury, Paddock Wood, Five Oak Green, and the new garden settlement at Tudeley Village, but also between these and other settlements; 2. Provide improved cycle parking and e-bike charging points; 3. Encourage improvements in public transport infrastructure and services, including in terms of rail access to Gatwick and London; 4. Support the expansion of car clubs (which allow the booking/use of vehicles kept on publicly accessible land by individuals for a number of hours at a time) and opportunities for car sharing; 5. Provide bike share opportunities; 6. Incorporate electric car charging points (or any new technology	There are no LSEs of this policy alone. This is a development management policy detailing changes to the transport network and parking provision. Furthermore, it contains the positive provision of expanding the local cycling and public transport, which might lead to a reduction in the use of private motor vehicles. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact pathways present and this policy can thus be screened out ‘in-combination’.

	requirements) into new developments, and where possible into existing public and private car parks and street furniture; 7. Explore potential for incorporating innovative smart travel solutions resulting from emerging transport technology and initiatives, such as Demand Responsive Transport (DRT), and Mobility as a Service (MaaS), into transport planning and new developments; and 8. Pursue improvements to transport links in the rural areas of the borough, and conserve and enhance the rural lanes network to ensure that they are convenient and safe for users. Provision will be made for maintaining and improving transport infrastructure at the strategic and local levels through working with partners to: a. Improve the local and strategic cycle network; b. Retain and improve the strategic rail network by increasing rail capacity, reliability, and punctuality, as well as reducing overall journey times by rail. The Council, as Local Planning Authority, will also aim to provide station infrastructure improvements where necessary; c. Improve the strategic highways network, including projects on the A21 Kippings Cross to Lamberhurst, A264 bus priority measures, the Hawkhurst relief road, and the A264 junction capacity improvements (Woodsgate Corner and Halls Hole Road/Blackhurst Lane). In particular, provision will be made for the offline A228 as part of the wider strategic transport network, and to mitigate the impact of development proposed in this Plan; d. Establish rapid bus/transport links, including from Paddock Wood to Tunbridge Wells, and Paddock Wood to Tonbridge (via Tudeley Village), and Tunbridge Wells to Tonbridge, and retain and enhance existing bus services; e. Plan for, as appropriate, and take opportunities presented by, technological innovations in transport; *and* f. Ensure that transport infrastructure development or improvement schemes (including public realm and other works to historic routes, surfaces, and street furniture) take every opportunity to improve or enhance the historic		

	environment, green, grey, and blue infrastructure, and landscape connectivity in accordance with the guidance in Historic England's national and regional Streets for All: Advice for Highway and Public Realm Works in Historic Places guidance. Traffic and car parking will be carefully managed through developing innovative strategies that will both provide a sufficient level of parking in the borough as well as encourage sustainable travel. The Council, as Local Planning Authority, will be closely involved with the Council's forthcoming Parking Strategy, to ensure an integrated approach to parking, transport, and land use planning. Development proposals that have significant transport implications will be required to be accompanied by a transport assessment and travel plan showing how car based travel can be minimised (see Table 8).		
Policy STR 7: Place Shaping and Design	All new development must aim to meet high standards of urban and architectural design and have regard to any design guidance adopted by the Council. The Council will require the use of masterplanning, including the use of design codes and sustainable design standards where appropriate, for strategic and larger scale developments where identified in allocation policies in this Plan. All new development must use the following principles relevant to its location, scale, and use: 1. Respond positively to local character and context to preserve and enhance the quality of existing communities and their environs; 2. Provide buildings that exhibit individual architectural quality within well considered public and private realms; 3. Protect and enhance assets of historic, landscape, or biodiversity value; 4. Enhance the public realm through additional landscaping, street furniture, public art, and other distinctive features that help to create a sense of place; 5. Ensure all components of the proposal, such as buildings, car parking, and new connections, open space, and landscaping, are well integrated as part of	There are no LSEs of this policy alone. This is a policy outlining the standards relating to urban and architectural design. It contains the positive provision of protecting and enhancing landscape and biodiversity assets. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	the overall design, to be accessible, legible, adaptable, and inclusive to everyone, safe and well related to one another; 6. Prioritise the needs of pedestrians, cyclists, and public transport services; 7. Be based on measures to promote environmental sustainability, including energy and water efficiency measures, sustainable design and construction techniques, and provision of appropriate wastewater and flood mitigation measures; and 8. Protect the amenity of existing and future residents and users with regard to noise, vibration, smell, loss of light, privacy, and overbearing impact. Further detailed policies in relation to place shaping and design are included within the development management policies in Section 6 and also within individual site allocation policies within the place shaping policies in Section 5 of this Draft Local Plan.		
Policy STR 8: Conserving and enhancing the natural, built, and historic environment	The natural, built, and historic environment, including landscape assets, biodiversity, geodiversity, priority habitats and species, and statutory and locally designated sites, will be conserved and enhanced by the following approach: 1. The urban and rural landscapes of the borough, including the designated High Weald AONB, will be conserved and enhanced; 2. The landscape character of the borough will be protected through retention and enhancement of the key characteristics or valued landscape features and qualities, as well as through the restoration of landscape character where it has been eroded; 3. Where development proposals have an impact on the landscape, developers will be required to clearly demonstrate that any harmful effects have, where possible, been avoided. Where effects are unavoidable, suitable mitigation must be provided that identifies all important landscape features and, where possible, are incorporated into the proposal; 4. Any new landscaping must make a positive contribution to the local	There are no LSEs of this policy alone. This is a positive policy outlining the aim to conserve biodiversity, priority habitats and species, and statutory designated sites. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact pathways present and this policy can thus be screened out ‘in-combination’.

	landscape character; 5. Within the area designated as AONB and its setting, development will be managed in a way that conserves and enhances the natural beauty of the area, and developers will be expected to demonstrate (through relevant documentation submitted as part of a planning application) how proposals have had regard to the objectives of the High Weald AONB Management Plan. Proposals that would harm the natural beauty of the AONB will not be permitted unless it is clearly in the public interest to do so. In such instances, effective mitigation should form an integral part of the development proposals; 6. A hierarchical approach to nature conservation and the protection of biodiversity will be applied across the sites and habitats of national, regional, and local importance within the borough. The objective is to achieve net gains for nature and protect and enhance sites of geological interest across the whole borough; 7. Opportunities and locations for biodiversity enhancements will be identified and pursued by the creation, protection, enhancement, extension, and management of green corridors and through the development of green infrastructure networks in urban and rural areas to improve connectivity between habitats; 8. The designated and non-designated heritage assets of the borough, including historic field patterns, listed buildings, conservation areas, Scheduled Ancient Monuments, archaeological sites, and Historic Parks and Gardens, will be conserved and enhanced, and special regard will be had to their settings; 9. Regard shall be given to the Historic England Conservation Principles and the Council's Historic Environment Review, which identifies historic environment themes particular to the borough; and 10. The positive management of heritage assets through partnership approaches and measures will be encouraged, including by the use of Conservation Area Management Plans. A more detailed suite of development management policies in relation to conserving and enhancing the natural, built, and historic environment is set		

	out within Section 6 of the Draft Local Plan.		
Policy STR 9: Neighbourhood Plans	The preparation and production of neighbourhood plans will be supported by the Council, including in relation to providing environmental, economic, and social data and mapping, scoping, Strategic Environmental Assessment requirements, advice on plan production and drafting of policies to meet the 'basic conditions', as well as by providing the resources necessary to undertake the latter stages for which the Council is responsible in a timely manner. Neighbourhood plans will be given increasing weight as they progress through their formal stages. In the event of overlaps or conflicts with non-strategic Local Plan policies, particular regard will be given to the respective stages of plan making and to the locally-specific focus and evidence base of relevant neighbourhood plan policies.	There are no LSEs of this policy alone. This policy outlines the Council's support for Neighbourhood Plans. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy STR 10: Limits to Built Development Boundaries	The proposed Limits to Built Development for all settlements are shown on the draft Policies Map. New development shall be focused within the Limits to Built Development, where proposals accord with other relevant policies of this Plan. Outside the Limits to Built Development, development will normally be limited to that which accords with specific policies of this Plan and/or that for which a rural location is demonstrated to be necessary.	There are no LSEs of this policy alone. This is a development management policy detailing that development will be limited to defined boundaries. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Section 5: Place Shaping Policies			

Royal Tunbridge Wells			
Policy STR/RTW 1: The Strategy for Royal Tunbridge Wells	**Royal Tunbridge Wells Main Urban Area** At the Main Urban Area of Royal Tunbridge Wells, as defined by the Limits to Built Development on the Royal Tunbridge Wells draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 1,222-1,320 new dwellings will be delivered on 17 sites* allocated in this Local Plan in the plan period (Policies AL/RTW 3, 7-8, 11, 17-18, 20-22, 24-27 and 29-32). * Of these sites, the following already have planning permission: AL/RTW 3 for 100 dwellings, AL/RTW 7 for 12 dwellings, AL/RTW 17 for 89 dwellings, and AL/RTW 27 for 239 dwellings; 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development inside the defined Limits to Built Development; 3. One new secondary schools will be delivered at Spratsbrook Farm on land that has been released from the Green Belt through this Local Plan, as well as the expansion of a number of existing secondary schools across the town; 4. The extension of St Peter's Primary School at Hawkenbury of one FE and Skinners Kent Primary School at Knights Wood of one FE to provide two forms of entry as and when needs require based on projections of pupil numbers and advice from Kent County Council Education over the course of the plan period; 5. One new medical centre; 6. A new sports hub at Hawkenbury Recreation Ground, to include standing/seating for supporters and other ancillary structures; 7. Other sports and recreation grounds within other areas of Royal Tunbridge Wells as required to mitigate the impact of future development; 8. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes, employment land and retail space. A total of 1,222-1,320 homes (440 homes have an existing planning permission) and 127,500 m^2 of employment space is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	and recreation; 9. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 10. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 11. The following public car parks within Royal Tunbridge Wells, as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • Camden Road • Beech Street • Crescent Road • Great Hall, unless alternative provision is made under Policy AL/RTW 1 • Mount Pleasant Avenue, unless alternative provision is made under Policy AL/RTW 1 • Little Mount Sion • Town Hall Yard • Union House • Royal Victoria Place (refer to AL/RTW 2)		

	• Meadow Road • Torrington (refer to AL/RTW 4) • Linden Park Road (refer to AL/RTW 10) • Warwick Road • Stone Steet South • Stone Street North • John Street • Fairground Car Park, Major York's Road • Coach Park **Royal Tunbridge Wells Town Centre** Within the defined Royal Tunbridge Wells Town Centre, as defined on the Royal Tunbridge Wells draft Policies Map and defined within Policy ED 9, proposals shall accord with the following requirements: 1. Cultural and leisure facilities in the form of a new 1,200 seat theatre as part of the proposed Calverley Square development, as well as the redevelopment of the Library and Adult Education Centre as part of the new Cultural and Learning Hub (The Amelia Scott) to deliver a new art gallery, museum, and library; 2. Major new mixed use schemes on the former ABC cinema site, the existing civic complex site, and the area around Torrington Road car park; 3. The retention of existing office space, and the delivery of additional office (B1) space, either as part of a mix of uses on key sites or as a sole use on a site, including 5,000sqm office floorspace as part of the Calverley Square development, to contribute to the continuing economic viability of the Town Centre; 4. A1 comparison retail floorspace in the region of 20-30,000sqm (net) * to be		

	delivered as a mix of uses on Town Centre sites as detailed below, in particular a reconfiguration and expansion of the existing Royal Victoria Place Shopping Centre; 5. A1 convenience retail floorspace in the region of 6-7,500sqm (net)*; 6. Residential development as part of an appropriate mix of uses within the town centre to ensure a vibrant and viable centre throughout the plan period; and 7. Pedestrian and cycle friendly environments, with associated infrastructure. Proposals coming forward as part of mixed use schemes should demonstrate how they can be adapted over time in order to incorporate a range of uses, should changes in national policy and economic circumstances necessitate a change of approach in order to future proof the health and resilience of the Town Centre over the course of the plan period. *The amount of retail floorspace will be monitored through the five-year review of the Local Plan and possible changes to retailing and use classes at the national level. **North Farm/Longfield Road defined Key Employment Area** Within the North Farm/Longfield Road defined Key Employment Area (KEA), as defined on the Royal Tunbridge Wells draft Policies Map and within Policy ED 1, proposals shall accord with the following requirements: 1. The allocation of a new business park to be located at Land adjacent to Longfield Road and Land at Colebrook House to deliver approximately 90,000sqm floorspace of new employment (B1/B2/B8) in a parkland setting, together with the potential for some ancillary outdoor leisure use, ensuring good connections to the A21 to deliver a range of employment floorspace in accordance with Policy AL/RTW 12 below; 2. The retention, expansion, and intensification where relevant of existing employment premises within the defined KEA, to ensure a vibrant and comprehensive mix of uses within this area in accordance with Policy ED1;		

	3. The delivery of appropriate new leisure and ancillary facilities within this area to build on the established mix of uses, including through allocations in this Local Plan, subject to compliance with other policies within this Draft Local Plan in relation to town centre development and location of such uses; and 4. Additional bulky goods retail may be permitted to support the existing retail uses within the area subject to compliance with other policies within the Local Plan in relation to the retail hierarchy, the Sequential Test and appropriate location for retail use. **Contributions required** In order to mitigate the impact on infrastructure, the development of sites allocated under Policies AL/RTW 1 to AL/RTW 32, and all other development within Royal Tunbridge Wells that creates a requirement for new or improved infrastructure beyond existing provision, contributions must be provided to mitigate that impact, including for: a. Transport: a series of transport mitigation measures, including 1) enabling means of active and sustainable travel and cycling infrastructure, and/or 2) physical works to highways or signals, and/or 3) means to contribute towards town centre-wide, or town-wide strategic and local measures to improve the highway network, including through the use of new and emerging technology; b. Education: including the provision of one new secondary school at Spratsbrook Farm, as well as extensions to existing secondary schools, the extension of St Peter's Primary School at Hawkenbury, and Skinners Kent Primary School at Knights Wood to provide two forms of entry; c. A new sports hub at Hawkenbury Recreation Ground (to include standing/seating for supporters and other ancillary structures) to replace and re-provide any loss of playing pitches across the main urban area, and improved qualitative standards; d. Built sports facilities to increase and improve the existing offer; e. Health and medical facilities: including for the provision of one new medical		

	centre; f. Investigations/studies into potential community heating schemes to serve Royal Tunbridge Wells; g. Improvements to the cultural offer in the town, including 1) the provision of buildings and spaces to provide cultural opportunities and 2) through public art in accordance with the Tunbridge Wells Borough Public Art guidance 2019; h. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; and i. Social and leisure facilities, including libraries, adult education facilities, etc. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floorspace, to be discussed with the Council through pre-application discussions. The Limits to Built Development (LBD) around Royal Tunbridge Wells are defined on the draft Policies Map. The LBD now includes the sites/part sites to be allocated at Policies AL/RTW 1-11, 12 (part), 15-16 (part), 17, 18 (part), 19-20, 22, 24-31, and 32 (part, but exclude AL/RTW 13, 14 (allocated for leisure or sustainable energy use on edge of settlement), 21, and 23 (allocated for sports use on the edge of settlement).		
Policy STR/SO 1: The Strategy for Southborough	At the Main Urban Area of Southborough, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 135-205 new dwellings will be delivered on three sites* allocated in this Local Plan in the plan period (Policies AL/SO 1 to AL/SO 3. *Of these sites, the following already have planning permission: AL/SO 1 for 69 dwellings, and AL/SO 2 for 16 dwellings; 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1;	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 135-205 homes (85 of which have an existing planning permission) is to be delivered in the 2013-2036 Local Plan period.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'.

	3. The provision of one new health facility to replace the existing one; 4. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 5. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 6. The following public car park(s) within Southborough, and as defined on the Southborough draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • Yew Tree Road (refer to AL/SO 1) • High Brooms Road • Pennington Road 7. Provision of public electric vehicle charging points and car share facilities in accordance with Policy TP 2: Transport Design and Accessibility; 8. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; 9. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space	Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	and recreation. It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. The provision of sustainable and active transport mitigation measures; and/or b. Potential highway works within the vicinity of the site, including the provision of pedestrian crossings; and/or c. Potential town centre-wide, or town-wide transport mitigation measures; d. Primary and secondary education; e. Health and medical facilities; f. The provision of buildings and spaces to provide cultural infrastructure; g. A new sports hub at Hawkenbury Recreation Ground, to include standing/seating for supporters and other ancillary structures, other sports and recreation grounds and built facilities, open space, and children's play space; h. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; i. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floorspace, to be discussed with the Local Planning Authority and Southborough Town Council through pre-application discussions. The Limits to Built Development (LBD) around Southborough are defined on the draft Policies Map. The LBD now includes the sites to be allocated at Policies AL/SO 1, 2, and 4, but excludes AL/SO3 (as the extent of development is yet to be determined).		
Policy STR/CA 1: The Strategy for Capel Parish	At the parish of Capel, as defined on the draft Policies Map, proposals shall accord with the following requirements:	There are no LSEs of this policy alone.	There are no LSEs of this policy 'in-combination' with

	1. The provision of a standalone garden settlement (referred to as Tudeley Village) of 2,500-2,800 dwellings, of which 1,900 are expected to be delivered in the plan period, together with appropriate employment, including retail provision, within the settlement. This shall be developed using a comprehensive masterplanned approach; 2. The delivery of a new secondary school to the west of Tudeley Village (and to the east of Tonbridge); 3. The provision of a new primary school within Tudeley Village and the expansion of Capel primary school; 4. Together with land outside of Capel parish on the northern, eastern, and southern sides of Paddock Wood, and within the town centre, a proportion of approximately 4,000 new dwellings and associated education, leisure, and health facilities to be delivered (on the wider allocations). These wider allocations are referred to as land at Capel and Paddock Wood, and Paddock Wood Town Centre, respectively, and shall be developed using a comprehensive masterplanned approach; 5. The provision of flood storage/attenuation/mitigation areas to reduce the flood risk to particular existing residential areas in Five Oak Green and Paddock Wood; 6. Strategic transport links shall be provided between Tonbridge, Tudeley Village, the A228, Five Oak Green, Royal Tunbridge Wells/Southborough, and land at Capel and Paddock Wood and Paddock Wood Town Centre. To include the provision of an offline A228 strategic link. Links from Tudeley Village to the east should minimise the impact on the road network in the settlement of Five Oak Green and have regard to Kent County Council minerals allocations in the vicinity. The exact location of such a link has not been determined;	This policy identifies a quantum and the location of new homes. A total of up to 1,900 homes in Tudeley Village is to be delivered in the 2013-2036 Local Plan period. Furthermore, a proportion of approx. 4,000 dwellings will be delivered in conjunction with housing to be delivered in Paddock Wood. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out ‘in-combination’. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	7. Strong green infrastructure must be provided to tie in new development with the surrounding landscape. Multi-functional green infrastructure (green wedges) to be integrated with drainage and flood defence measures (see criterion 3 of Policy EN 1: design and other development management criteria, Policy EN 16: Green, Grey, and Blue Infrastructure, Landscape Policies EN 18 and EN 20, and Water Policies EN 28: Flood Risk and EN 29: Sustainable Drainage); 8. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development inside the defined Limits to Built Development of Five Oak Green; 9. Tudeley Village and land at Capel and Paddock Wood will both require the release of Green Belt land. Details of these allocations are provided below; 10. Furthermore, the northern part of the site allocation for employment at Land adjacent to Longfield Road (Policy AL/RTW 12) (which predominantly comprises land indicated as Open Space and Buffer and will not include built development on it and therefore will not be released from the Green Belt), also lies within Capel parish; 11. Zero and low carbon energy production to be considered during early design stages and incorporated to provide an exemplar scheme; 12. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 13. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the		

	designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites. **Masterplanning and Delivery** 1. The comprehensive masterplanning approach will require close liaison and involvement with local communities and organisations, infrastructure providers, statutory consultees, and county and neighbouring authorities, and will follow garden settlement principles. Proposals for the piecemeal development of individual sites will not be supported. The masterplanning approach will involve: • An overall strategic masterplan for the provision of infrastructure, which covers the parishes of Capel and Paddock Wood, and where relevant, those parts of adjacent parishes and authorities (i.e. with input from Tonbridge & Malling and Maidstone Borough Councils where it impacts on Tonbridge town centre and land to the north of Tunbridge Wells borough); • A masterplan for the area proposed to be allocated under Policy AL/CA 1 (Tudeley Village), and; • A masterplan for the area to be allocated under Policies AL/CA 3 and AL/PW 1, AL/PW 2 and other existing areas of and adjacent to Paddock Wood (including on land between the A228 and B1260 Maidstone Road within Maidstone borough and any additional land required for flood storage/attenuation/mitigation); • The creation and adoption of one or more Supplementary Planning Documents; 2. The masterplanned approach will include planning for infrastructure strategically (taking account of development at both Tudeley Village and land at Capel and Paddock Wood) and determining the appropriate phasing of development, to be linked to the relevant delivery of infrastructure. Particular regard will be had to the strategic planning and delivery of infrastructure related to foul and surface water and transport; 3. It is highly likely that the delivery of development will require land		

	equalisation agreements; 4. The Council will, if necessary, use its Compulsory Purchase Order powers to ensure the delivery of the appropriate masterplanned approach. **Contributions required** In order to mitigate the impact on infrastructure, the development of sites allocated under Policies AL/CA 1-AL/CA 3, and all other development within the parish of Capel that creates a requirement for new or improved infrastructure beyond existing provision, contributions or on/off site provision must be provided to mitigate that impact, including for: a. Transport: as detailed above; b. Education: the provision of a new secondary school to the west of Tudeley Village and to the east of Tonbridge (Policy AL/CA 2), as well as for a new primary school within Tudeley Village, the expansion of Capel primary school, and additional primary schools within land at Capel and Paddock Wood; c. Flooding: the provision of flood mitigation measures, including flood storage/attenuation/mitigation, to reduce the flood risk to particular existing residential areas in Five Oak Green and Paddock Wood; d. New outdoor sports pitches and built sports facilities; e. Health and medical facilities; f. Youth and children's play space; and g. Social and leisure facilities, including libraries, adult education facilities, etc. Please note that this is not an exhaustive list, and other mitigating infrastructure needs are identified in individual site allocations policies below, or may be identified in the future. The Limits to Built Development at Capel will be reviewed at the next Local Plan review (within five years of the adoption of this Plan) should details of the Tudeley Village (below) be known. As above at Policy STR 10, the Limits to Built Development at Brook Farm has been removed and is to be retained as a Key Employment Area.		

Policy STR/PW 1: The Strategy for Paddock Wood	At the parish of Paddock Wood, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Together with land outside Paddock Wood parish (in Capel parish, immediately to the west of Paddock Wood the settlement), provision will be made for a proportion of approximately 4,000 new dwellings, considerable employment and associated education, leisure, and health facilities to be delivered on land referred to as land at Capel and Paddock Wood (Policy AL/PW 1), and in Paddock Wood Town Centre (AL/PW 2). These shall be developed using a comprehensive masterplanned approach: • It is advised that these allocations are in addition to the residential development permitted and under construction at Mascalls Court Farm, and the development permitted at Mascalls Farm (309 dwellings) and Church Farm (300 dwellings); • A further 115 units are proposed to be allocated under Policy AL/PW 3 at Mascalls Farm above the 309 dwellings that already have planning permission. These will be in addition to the 4,000 referred to above; • Please see Policy AL/PW 1 for further information on Church Farm; 2. Development to provide for the regeneration and re-vitalisation of the town centre; 3. The provision of a community hub and a sporting hub; 4. The provision of flood storage/attenuation/mitigation areas to reduce the flood risk to particular existing residential areas in Paddock Wood, and potentially at Five Oak Green; 5. Strategic transport links shall be provided between Tonbridge, Tudeley Village, the A228, Five Oak Green, Royal Tunbridge Wells/Southborough, and land at Capel and Paddock Wood and Paddock Wood Town Centre. This will include the provision of an offline A228 strategic link. Links from Tudeley Village to the east (potentially into the centre of Paddock Wood) should minimise the impact on the road network in the settlement of Five Oak Green and have regard to Kent County Council minerals allocations in the vicinity.	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes, employment land and retail space. A total of up to 4,115 homes in Paddock Wood is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	There are no LSEs of this policy ‘in-combination’ with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out ‘in-combination’. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	The exact location of such a link has not been determined; 6. Additional housing and employment may be delivered through the redevelopment of appropriate sites and other windfall development within the defined Limits to Built Development of Paddock Wood; 7. Development at land at Capel and Paddock Wood will require the release of Green Belt Land. Details of this allocation is provided below; 8. The provision of natural and semi natural green space, a range of formal and informal open space, children's and youth play space, sports pitches and allotments/food growing areas will be made to meet the needs of a growing population; 9. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites. **Town Centre** 1. Development shall provide for the reconfiguration of the town centre, bringing forward revitalisation and regeneration of the area, which includes recognising the role of railway heritage and hop and fruit picking to the area, and any non-designated heritage assets contributing to local distinctiveness; 2. To include approximately 400-700sqm of comparison retail floorspace, one medium sized foodstore by the end of the plan period (convenience retail) and professional services (A2), food and drink (A3) and drinking establishments (A4), hot food and takeways (A5), office (B1), appropriate leisure (D2), and suitable sui generis uses. **Masterplanning and Delivery**		

	1. The comprehensive masterplanning approach will require close liaison and involvement with local communities and organisations, infrastructure providers, statutory consultees, and county and neighbouring authorities, and will follow garden settlement principles. Proposals for the piecemeal development of individual sites will not be supported. The masterplanning approach will involve: • An overall strategic masterplan for the provision of infrastructure which covers the parishes of Capel and Paddock Wood, and where relevant those parts of adjacent parishes and authorities (i.e. with input from Tonbridge & Malling and Maidstone Borough Councils where it impacts on Tonbridge town centre and land to the north of Tunbridge Wells borough) and; • A masterplan for the area to be allocated under Policies AL/CA 3 and AL/PW 1, AL/PW2 and other existing areas of, and adjacent to, Paddock Wood the settlement (including on land between the A228 and B1260 Maidstone Road within Maidstone Borough and any additional land required for flood storage/attenuation/mitigation, including that in Capel parish); • The creation and adoption of one or more Supplementary Planning Documents; 2. The masterplanned approach will include planning for infrastructure strategically (taking account of development at Tudeley Village) and determining the appropriate phasing of development, to be linked to the relevant delivery of infrastructure. Particular regard will be had to the strategic planning and delivery of infrastructure related to foul and surface water and transport; 3. It is highly likely that the delivery of development will require land equalisation agreements; 4. The Council will, if necessary, use its Compulsory Purchase Order powers to ensure the delivery of the appropriate masterplanned approach.		

	Flooding (see Policies EN 28: Flood Risk and EN 29: Sustainable Drainage): 1. All development at Paddock Wood will contribute to the provision of flood storage/attenuation/mitigation areas and flood defence works to reduce the flood risk to particular existing residential areas at Paddock Wood, Capel and potentially Five Oak Green; 2. Each site will need to provide a Flood Risk Assessment, and comply with the requirements of this and any surface water drainage schemes agreed through planning applications, to ensure flood risk is not increased materially at individual properties (even if the overall flood works will result in 'betterment' elsewhere). **Transport** To be delivered on a strategic basis, taking account of the impact of proposed development at Tudeley Village (see Policies TP 1: Transport Assessments, Travel Plans and Mitigation and Policy TP 2: Design and Accessibility): 1. Strategic transport links shall be provided between Tonbridge, Tudeley Village, the A228, Five Oak Green, Royal Tunbridge Wells/Southborough, and land at Capel and Paddock Wood and Paddock Wood Town Centre. This should include the provision of an offline A228 strategic link. Links from Paddock Wood to the west should minimise the impact on the road network in the settlement of Five Oak Green, shall provide for longer distance cycle links, and shall have regard to Kent County Council minerals allocations in the vicinity. 2. A strategic approach be taken to increase walking and cycling permeability. Development should be structured around direct walking and cycling routes,		

	linking new development with existing community facilities, public transport, employment, and commercial centres; 3. The provision of improvements to the local road network, and new roads in association with new development, to provide for improved permeability, including to land to the north of the railway line (particularly in the eastern part of Paddock Wood); 4. Provision of improvements to bus provision: frequency, linkages, using new technology. New development to be designed appropriately to facilitate provision of bus routes within allocated sites, linking into wider bus network; 5. Provision of improved vehicle and cycle parking at Paddock Wood station, and the following public car park(s) within Paddock Wood, and as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • Commercial Road East • Commercial Road West **Landscape** 1. Strong green infrastructure must be provided to tie in new development with the surrounding landscape. Multi-functional green infrastructure (green wedges) to be integrated with drainage and flood defence measures (see criterion 3 of Policy EN 1: design and other development management criteria, Policy EN 16: Green, Grey, and Blue Infrastructure, Landscape Policies EN 18 and EN 20, and Water Policies EN 28: Flood Risk and EN 29: Sustainable Drainage); 2. Avoid built development on slopes to the south to Paddock Wood. **Infrastructure** In order to mitigate the impact on infrastructure, the development of sites		

	allocated under Policies AL/PW 1-AL/PW4, and all other development within the parish of Paddock Wood that creates a requirement for new or improved infrastructure beyond existing provision, contributions or on/off site provision must be provided to mitigate that impact, including for: a. Transport: to be provided on the basis as set out above; b. Education: the expansion of Mascalls Secondary school, and the provision of additional primary schools; c. Flooding: - please see above d. A new sports hub; e. A new community hub; f. Health and medical facilities; g. Youth and children's play space; and h. Social and leisure facilities, including libraries, adult education facilities, etc. Please note that this is not an exhaustive list, and other mitigating infrastructure needs are identified in individual site allocations policies below, or may be identified in the future. The Limits to Built Development (LBD) around Paddock Wood are defined on the draft Policies Map. The LBD now includes the sites/part sites to be allocated at Policies AL/PW 1 (Church Farm only), 2, 3 (part), and 4.		
Policy STR/CRS 1: The Strategy for Cranbrook and Sissinghurst Parish	At the parish of Cranbrook and Sissinghurst, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 718-803 new dwellings will be delivered on nine sites allocated in Cranbrook* (Policies AL/CRS 1-3, 5-7 and 9) and approximately 100-115 new dwellings on five sites in Sissinghurst (Policies AL/CRS 12-16) in this Local Plan in the plan period. * Of these sites, the following already have planning permission: AL/CRS 4 for 36 dwellings and CRS 8 for 28 dwellings; 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 718-803 homes (64 homes have an existing planning permission) is to be delivered in the 2013-2036 Local Plan period.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'.

	STR 1; 3. All development proposals will be required to establish the impact of the proposed development upon Hawkhurst and the Flimwell crossroads (junction of A21 and A268); 4. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 5. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 6. All development proposals will ensure that landscape gaps between individual areas of the parish are retained to prevent coalescence of development; 7. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; to include contributions towards the proposed Bedgebury to Sissinghurst cycle path route; 8. The following public car parks within Cranbrook and Sissinghurst, and as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • Tanyard • The Regal/Co-Op	Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	• Jockey Lane 9. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation; 10. Provision of a framework for a positive heritage strategy, including enhancements in accordance with the NPPF and adherence to Policy STR 8; 11. Where necessary, undertaking a rapid Conservation Area appraisal for those absent or out of date. It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; the three existing medical practices to be combined into one practice. Provision of land and new premises to deliver one GP practice and associated services; c. New community centre; d. The provision of buildings and spaces to provide cultural infrastructure; e. The provision of allotments, amenity/natural green space, parks, and recreation grounds, children's play space and youth play space to include improvements to the cricket pavilion, improvements to the Tomlin Ground (Cranbrook Rugby Club), including to the changing rooms and club house, improvements to pitches at King George Field in Sissinghurst, including converting adult pitches to junior pitches; f. Extending the Crane Valley public access route westwards and eastwards with consideration for biodiversity and ancient woodland*;* g. A feasibility study to investigate the potential of creating pedestrian and cycle route between the settlements in the parish, building upon existing footways and Public Rights of Ways; to include contributions towards the proposed utility and leisure cycling routes within the Borough Cycling Strategy		

	and the proposed Bedgebury to Sissinghurst cycle path route; h. A replacement of St George's Hall (Sissinghurst); i. Provision of electric vehicle charging points and car share facilities in accordance with Policy TP 2: Transport Design and Accessibility; j. Bus services, including contributions towards a feasibility study to investigate the potential of creating a Demand Responsive Bus service for the parish and beyond; k. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Cranbrook and Sissinghurst Parish Council through pre-application discussions. The Limits to Built Development around Cranbrook and Sissinghurst are defined on the draft Policies Map. It is noted that these now include the sites/part sites to be allocated at Policies AL/CRS 1, 2 (part), 3 (part), 5 (part), 8, 9 (part), 10-11, 12 (part), 13 (part), and 14, 15 and 16, but exclude AL/CRS 4 (open gap/landscape buffer between existing LBD and developable part of site allocation), 6 (no existing LBD at Hartley), 7, and 17 (safeguarded land). As above at Policy STR 10, a further/separate LBD is proposed at Sissinghurst around existing built development to the west of the settlement and incorporating proposed residential site allocations AL/CR 13 (part), CR 15 and CR 16, with an open landscape gap retained between the two LBDs.		
Policy STR/HA 1: The Strategy for Hawkhurst Parish	At the parish of Hawkhurst, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 681-731 new dwellings will be delivered on seven sites* allocated in this Local Plan in the plan period (Policies AL/HA 1-4, 6 and 9). *Of these sites, the following already have planning permission: AL/HA 5 for 25 dwellings; 2. Additional housing may be delivered through the redevelopment of	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes, employment land and retail space. A total of 681-731 homes (25	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this

	appropriate sites and other windfall development in accordance with Policy STR 1; 3. For those developments expected to be delivered before the relief road (reference criteria 2 of this Policy) is fully operational, the applicant will be required to demonstrate with clear evidence that there is sufficient capacity at the Hawkhurst crossroads (junction of A229 and A268) to serve the proposed development, as at this point in time the Highway Authority does not consider that there is sufficient additional capacity at this crossroads. If it is not possible for the proposal to demonstrate sufficient capacity, then the proposed development will not be implemented until after the relief road is fully operational. In these circumstances, contributions will be required towards the provision of the relief road; 4. The Gill's Green Key Employment Area will be safeguarded for future employment (B1, B2, B8) use in accordance with Policy ED 1, in order to maintain employment opportunities in the locality. Further expansion opportunity of employment floorspace is allocated in Policies AL/HA 8, AL/HA 9 and AL/HA 10). All future development proposals will be designed and located so as to retain the existing landscape character of Gill's Green and its surrounding area, and will include landscape management schemes to deliver this requirement; 5. A small amount of housing will also be provided at Gill's Green (included in total above); 6. All development proposals will be required to establish the impact of the proposed development upon the Flimwell crossroads (junction of A21 and A268), and if necessary provide contributions towards works to this junction to mitigate that impact; 7. All development proposals will ensure that landscape gaps between individual areas of the parish are retained to prevent coalescence of development, preserve the setting of heritage assets and help protect the wider historic environment;	homes have an existing planning permission) is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	8. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 9. The following public car parks within Hawkhurst, and as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • North Grove • Fowlers Park • 10. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessiblity; to include contributions towards the proposed Bedgebury to Sissinghurst cycle path route; 11. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation; 12. Retention of appropriate mix of uses within the defined Primary Shopping Area, as defined on the draft Policies Map in accordance with Policy ED 11 in order to retain and enhance its role as a local service centre; 13. The loss of local shops, community facilities, and green spaces, will be resisted (particularly in The Moor) in accordance with Policy ED 12, and the provision of any new retail development, community services, and open space, recreation facilities, etc. will be supported to meet local needs in accordance with other policies within the Plan.		

	It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities - it is anticipated that the two existing medical practices at Hawkhurst will combine. An allocation for a new GP practice to replace and re-provide the existing services provided by the Wish Valley Surgery and the North Ridge Medical Practice is set out in Policy AL/HA 5 (Fowlers Park); c. The provision of buildings and spaces to provide cultural infrastructure; d. Improvements to highway and transportation infrastructure will be made in accordance with individual site criteria set out in Policies AL/HA 1 to AL/HA 10; e. Improvements to, and increase in provision of, public parking to serve Hawkhurst (Highgate). This public car parking could be provided on sites near the settlement centre; f. Provision of information panels and installation of public art along the Hop Pickers Line. Other locally significant historical features, events, and personalities could be recognised as part of this approach; g. The proposed Bedgebury to Sissinghurst cycle path route; h. Provision of a new community facility. Opportunities for this facility to be of a design capable of providing sports use will be explored; i. A feasibility study to consider alternative modes of public transport provision to serve Hawkhurst; for example, a Demand Responsive Bus service for the parish and beyond or community buses with subsequent contributions towards a project that delivers the preferred outcome of the feasibility study; j. A study to reconsider road classification within Hawkhurst; k. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space to include potential for expansion and improvement of sports pitch provision at King George V field; l. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on		

	greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Hawkhurst Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Hawkhurst are defined on the draft Policies Map. The LBD now includes the sites/part sites to be allocated at Policies AL/HA 2, 3 (part), 4 (part), 5, and 6 (part), but exclude Policies AL/HA 1 (as the extent of development is yet to be determined) and 7 (allocated for leisure/recreational use on edge of settlement), and 8-10 (there is no longer a LBD at Gill's Green). As above at Policy STR10, the existing LBD at Gill's Green is to be removed and retained as a Key Employment Area and therefore site allocations AL/HA 8, 9 and 10 are excluded.		
Policy STR/BE 1: The Strategy for Benenden Parish	At the parish of Benenden, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 119-129 new dwellings will be delivered on four sites* allocated in this Local Plan in the plan period (Policies AL/BE 1-4). * Of these sites, the following already have planning permission: AL/BE 1 for 12 dwellings and AL/BE 4 for 22 (net increase) dwellings. i. A significant element (approx 44-50% percent) would be provided around Benenden Hospital at East End. While the services provided at East End are considerably less than at Benenden, Benenden Hospital is a major employment site, contains significant areas of previously developed land, is not within the Area of Outstanding Natural Beauty, and there is good potential to increase the connectivity to Benenden; 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes, employment land and retail space. A total of 119-129 homes (34 homes have an existing planning permission) is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	high standards required of the other policies in this Plan for the High Weald AONB landscape; 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 5. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; 6. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation. It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. Improvements to bus services including investigations into the feasibility of a Demand Responsive bus service linking Benenden and Tenterden; e. Feasibility study to explore opportunities for a 20mph zone for Benenden village; f. Active travel link between Benenden and East End; g. Improved broadband and mobile connectivity to serve all of parish area; h. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; i. Other mitigation measures identified through the pre-application process	reached.	

	and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floorspace, to be discussed with the Local Planning Authority and Benenden Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Benenden are defined on the draft Policies Map. The LBD now includes the sites/part sites to be allocated in Benenden at Policies AL/BE 1-2, and 3 (part), but excludes Policy AL/BE 4 (there is no existing LBD at East End). As above, the LBD at Iden Green has been removed as this settlement has limited key facilities and bus services making it unsustainable in this context.		
Policy STR/BI 1: The Strategy for Bidborough Parish	At the parish of Bidborough, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 2. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 3. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 4. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility;	There are no LSEs. This policy currently does not identify a quantum and the location of new homes, employment land and retail space. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	5. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation. It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. The provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation; e. A new sports hub at Rusthall Recreation Ground, which could include open space and children's play space; f. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; g. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Bidborough Parish Council through pre-application discussions. No changes are proposed to the Limits to Built Development at Bidborough.		
Policy STR/BM 1: The Strategy for Brenchley and Matfield Parish	At the parish of Brenchley and Matfield, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 91-150 new dwellings will be delivered on four sites at Matfield allocated in this Local Plan in the plan period (Policies AL/BM 1-4);	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present

	2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 5. The following public car park within Brenchley and Matfield, as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • High Street 6. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport, Design and Accessibility. It is expected that contributions will be required towards the following if necessary to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. The provision of allotments, amenity/natural green space, parks and	91-150 homes is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	recreation grounds, children's play space and youth play space; e. A new sports hub at Paddock Wood, which could include open space and children's play space; f. The provision of information boards (or similar) and installation of public art along the Hop Pickers Line. Other locally significant historical features, events, and personalities could be recognised as part of this approach; g. Other mitigation measures identified through the pre-application process and planning application; h. Play spaces and delivery of new children's playground at Matfield; i. Provision of improvements to broadband connectivity (see criterion 10 of Policy EN 1: Design and other development management criteria and Policy ED 3: Digital Communications and Fibre to the Premises); j. Delivery of traffic calming measures at Matfield. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floorspace, to be discussed with the Local Planning Authority and Brenchley and Matfield Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Brenchley and Matfield are defined on the draft Policies Map. These now include the sites/part sites to be allocated in Matfield at Policies AL/BM 1, 2 (part), and 3 (part), but excludes Policy AL/BM 4 (a low density scheme). As above at Policy STR 10, a further/separate LBD at Brenchley around existing built development to the west of the settlement is proposed, with an open landscape gap retained between the two LBDs.		
Policy STR/FR 1: The Strategy for Frittenden Parish	At the parish of Frittenden, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 25-30 new dwellings will be delivered on one site allocated in this Local Plan in the plan period (Policy AL/FR 1); 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 25-30 homes is to be delivered in the 2013-	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of

	STR 1; 3. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites (see Policy EN 20: Rural Landscape and EN 21: High Weald AONB); 4. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2 Transport Design and Accessibility; 5. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation. It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. Provision of improvements to broadband connectivity (see criterion 10 of Policy EN 1: Design and other development management criteria and Policy ED 3: Digital Communications and Fibre to the Premises); e. Provision of additional public parking; f. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; g. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Frittenden	2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	Parish Council through pre-application discussions. Very minor changes are proposed to the Limits to Built Development at Frittenden as identified in the Topic Paper at Policy STR 10 above.		
Policy STR/GO 1: The Strategy for Goudhurst Parish	At the parish of Goudhurst, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 21-26 new dwellings will be delivered on two sites* allocated in this Local Plan in the plan period (Policies AL/GO 1-2). * Of these sites, the following already have planning permission: AL/GO 2 for 11 dwellings; 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape (see Policy EN 21: High Weald AONB); 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites (see Policy EN 21: High Weald AONB); 5. The following public car park within Goudhurst, and as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • Balcombes Hill	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 21-26 homes (11 homes have an existing planning permission) is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	6. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; 7. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation. It is expected that contributions will be required towards the following if necessary to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. Provision of community facilities (including Scout Hut) and expansion of village hall; e. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; f. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Goudhurst Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Goudhurst are defined on the draft Policies Map. The LBD now includes the sites/part sites to be allocated at Policies AL/GO 1 (part) and 2 (part). As above at Policy STR 10, the LBD at Kilndown has been removed.		
Policy STR/HO 1: The Strategy for Horsmonden Parish	At the parish of Horsmonden, as defined on the draft Policies Map, proposals shall accord with the following requirements:	There are no LSEs of this policy alone.	There are no LSEs of this policy 'in-combination' with other plans.

	1. Approximately 225-305 new dwellings will be delivered on three sites allocated in this Local Plan in the plan period (Policies AL/HO 1-3); 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape (see Policy EN 21: High Weald AONB); 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites (see Policy EN 21: High Weald AONB); 5. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; 6. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation; 7. Provision of public electric vehicle charging points and car share facilities in accordance with Policy TP 2: Transport Design and Accessibility.	This policy identifies a quantum and the location of new homes. A total of 225-305 homes is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. Provision of a new community centre; e. A feasibility study to investigate the potential of creating pedestrian and cycle routes between the settlements in the parish, building upon existing footways and Public Rights of Ways; f. The provision of information boards (or similar) and installation of public art along the Hop Pickers Line. Other locally significant historical features, events, and personalities could be recognised as part of this approach; g. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; h. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Horsmonden Parish Council through pre-application discussions. The Limits to Built Development around Horsmonden are defined on the draft Policies Map. The LBD now include the sites/part sites to be allocated at Policies AL/HO 1, 2 (part), and 3 (part).		
Policy STR/LA 1: The Strategy for Lamberhurst Parish	At the parish of Lamberhurst, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 50-60 new dwellings will be delivered on two sites allocated in this Local Plan in the plan period (Policies AL/LA 1-2); 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 50-60 homes is to be delivered in the 2013-2036 Local Plan period.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this

	STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape (see Policy EN 21: High Weald AONB); 4. The following public car park within Lamberhurst, as defined on the draft Policies Map, will also be retained in accordance with Policy TP 4: Public Car Parks: • The Broadway 5. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP2: Transport Design and Accessibility; 6. Development proposals will need to demonstrate, where appropriate, a positive contribution to Biodiversity Opportunity Area targets (See Policy EN 11: Net Gains for Nature: biodiversity); 7. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation. It is expected that contributions will be required towards the following if necessary to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure;	Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	d. Improvements to Lamberhurst Village Hall; e. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; f. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Lamberhurst Parish Council through pre-application discussions. Minor changes are proposed to the Limits to Built Development at Lamberhurst as set out in the Topic Paper referred to in Policy STR 10 above.		
Policy STR/PE 1: The Strategy for Pembury Parish	At the parish of Pembury, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 294-304 new dwellings will be delivered on five sites* allocated in this Local Plan in the plan period (Policies AL/PE 1-5). * Of these sites, the following already have planning permission: AL/PE 5 for 19 dwellings; 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape; 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 294-304 homes (19 homes have an existing planning permission) is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites; 5. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility. To include development of cycle route along Pembury High Street to link in with cycle route on Pembury Road (A264) and the wider cycle network, including the cycle/pedestrian route along the dualled part of the A21. To include improvements to the Tunbridge Wells Circular Footpath, including opportunities for its improvement and creation of additional linkages into this route; 6. The provision of the offline A228 strategic transport link; 7. Measures to be taken to reduce the impact of proposed development on the A21/Henwood Green Road junction and A21/A264 junction; 8. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation; 9. Provision of public electric vehicle charging points and car share facilities in accordance with Policy TP 2: Transport Design and Accessibility. It is expected that contributions will be required towards the following if necessary to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; to include reconfiguration and/or extension to existing facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. A new sports hub at Hawkenbury recreation ground, to include		

	standing/seating for supporters and other ancillary structures, and other sports and recreation grounds and built facilities, open space and children's play space; e. The provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; f. Improvements to public transport provision; g. Improvements to public woodlands: Marshley Harbour Wood, and Snipe and Bassetts Wood; h. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Pembury Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Pembury are defined on the draft Policies Map. The LBD now includes the sites to be allocated at Policies AL/PE 1 -5 and 7. It does not include any land allocated under Policy AL/PE 6.		
Policy STR/RU 1: The Strategy for Rusthall Parish	At the parish of Rusthall, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 15 new dwellings will be delivered on one site allocated in this Local Plan in the plan period (Policy AL/RU 1); 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes. A total of 15 homes is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and

	high standards required of the other policies in this Plan for the High Weald AONB landscape (see Policy EN 21: High Weald AONB); 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites (see Policy EN 21: High Weald AONB); 5. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; 6. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation; 7. Provision of public electric vehicle charging points and car share facilities in accordance with Policy TP 2: Transport Design and Accessibility. It is expected that contributions will be required towards the following if necessary to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. The provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space; e. A new sports hub at Rusthall Recreation Ground; f. Other mitigation measures identified through the pre-application process and planning application.	• Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	economic (ED 1) policies have been screened in.

	Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Rusthall Parish Council through pre-application discussions. No changes are proposed to the Limits to Built Development at Rusthall.		
Policy STR/SA 1: The Strategy for Sandhurst Parish	At the parish of Sandhurst, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 20-27 new dwellings will be delivered on two sites allocated in this Local Plan in the plan period (Policies AL/SA 1-2); 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape (see Policy EN 21: High Weald AONB); 4. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network, including provision of safer pedestrian routes along Back Road and Rye Road in accordance with Policy TP 2: Transport Design and Accessibility; 5. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation.	There are no LSEs of this policy alone. This policy identifies a quantum and the location of new homes A total of 20-27 homes is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	There are no LSEs of this policy 'in-combination' with other plans. The potential impact pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	It is expected that contributions will be required towards the following if necessary to mitigate the impact of the development: a. Primary and secondary education; b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. Other mitigation measures identified through the pre-application process and planning application; e. Speed reduction on roads through Sandhurst, to include changes to speed limits (20mph limits on Back Road, 40mph limits on Megrims Hill, and 30mph limit on Bodiam Road), and traffic calming measures, including within the central village area; f. Improvements to bus services including provision of bus turning facility and, where possible, bus stops on the east side of the village; g. A feasibility study to investigate options for the provision of a public car park to serve the primary school; h. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space, to include improvements to drainage for the football pitch. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Sandhurst Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Sandhurst are defined on the draft Policies Map. The LBD now includes the sites/part sites to be allocated at Policies AL/SA 1 (part) and 2 (part).		
Policy STR/SP 1: The Strategy for Speldhurst Parish	At the parish of Speldhurst, as defined on the draft Policies Map, proposals shall accord with the following requirements: 1. Approximately 15-20 new dwellings will be delivered on one site allocated	There are no LSEs of this policy alone. This policy identifies a quantum and the location	There are no LSEs of this policy 'in-combination' with other plans. The potential impact

	in this Local Plan in the plan period (Policy AL/SP 1); 2. Additional housing may be delivered through the redevelopment of appropriate sites and other windfall development in accordance with Policy STR 1; 3. Where a site is within the AONB, it should be demonstrated that the proposal will make a positive contribution towards achieving the objectives of the most recent AONB Management Plan and show how relevant guidance from the AONB Joint Advisory Committee has been considered to meet the high standards required of the other policies in this Plan for the High Weald AONB landscape (see Policy EN 21: High Weald AONB); 4. Sites outside the AONB but within the High Weald National Character Area, or close to the boundary of the designated AONB landscape, will have similar characteristics and are likely to contribute to the setting of the designated landscape. The AONB Management Plan and any supporting guidance will be a material consideration for these sites (see Policy EN 21: High Weald AONB); 5. Maintenance and enhancement of, and/or linkages to, public rights of way or the local strategic cycle network in accordance with Policy TP 2: Transport Design and Accessibility; 6. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space in accordance with the requirements of Policy OSSR 2: Provision of publicly accessible open space and recreation. It is expected that contributions will be required towards the following if necessary, to mitigate the impact of the development: a. Primary and secondary education;	of new homes. A total of 15-20 homes is to be delivered in the 2013-2036 Local Plan period. Potential impact pathways are present: • Recreational Pressure / Urbanisation • Atmospheric Pollution However, following the screening assessment a conclusion of no LSEs is reached.	pathways that are present are not considered significant at the level of individual parishes and this policy can thus be screened out 'in-combination'. However, the overarching development (STR 1) and economic (ED 1) policies have been screened in.

	b. Health and medical facilities; c. The provision of buildings and spaces to provide cultural infrastructure; d. Provision of allotments, amenity/natural green space, parks and recreation grounds, children's play space and youth play space to include upgrading the Speldhurst Recreation Ground, including provision of new showers and new fixed nets for cricket; e. A new sports hub at Rusthall Recreation Ground; f. Other mitigation measures identified through the pre-application process and planning application. Any major development larger than approximately 100 residential units on greenfield windfall sites is expected to provide suitable employment floor space, to be discussed with the Local Planning Authority and Speldhurst Parish Council through pre-application discussions. The Limits to Built Development (LBD) around Speldhurst are defined on the draft Policies Map. The LBD now includes the site to be allocated at Policy AL/SP 1, but excludes Policies AL/SP 2 (safeguarded land) and 3 (open space gap between the site allocation and the existing LBD).		
Section 6: Development Management Policies			
Policy EN 1: Design and other development management criteria	All proposals for development within the borough will be required to satisfy all of the following criteria, and consideration of the criteria should be demonstrated in any supporting statement submitted with an application. It is expected that any departure from this policy, including individual criterion, must be robustly justified in information submitted in support of this application. The key questions and checks should not be read as an exhaustive list but as an indicative guide to the main issues that need to be considered and addressed when submitting proposals for development. Additionally, the 'Planning Advice Note for Applicants/Agents: Information required when submitting a Planning Application', which is available on the Council's website (22), provides information and guidance about the type of	There are no LSEs of this policy alone. This policy outlines criteria for design and other management criteria. It includes the positive provision of achieving a net gain in biodiversity. The policy neither provides the quantum or location of new development.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	information that should be submitted to support planning application proposals. Design Aspect — Design Criteria 1. Character and site context — 1. The proposal should firstly seek to avoid the loss of buildings that contribute positively to the locality and street scene, heritage assets, open spaces, trees/vegetation, features of biodiversity/geodiversity, or other features important to the built or landscape character of the area, unless the proposed development is demonstrably improved overall; and For any new development proposals: 2. The siting, layout, density, spacing, orientation, and landscaping must respect the characteristics of the site, including its topography and any natural features, its relationship with immediate surroundings, and where appropriate, views into and out of the site; and 3. The scale, form, height, massing, proportions, external appearance, and materials should be compatible with existing buildings, building lines, landscape and treescape, roofscapes, and skylines. (See also	Therefore, there are no impact pathways present and this policy can thus be screened out.	

	Key questions / checks	Policies EN 6: Historic Environment, EN 7: Heritage Assets, Biodiversity/Geodiversity and Protection of Habitats, Policies EN 11 to EN 13, Policy EN 14: Trees, Woodlands, Hedges, and Development and Landscape Policies EN 18 to EN 21); and 4. Maximise the use of renewable energy technologies and other sustainable design measures, reducing the reliance upon less sustainable energy sources. (See also Policies EN 2: Sustainable Design and Construction, EN 4: Energy Reduction in New Buildings, EN 27: Conservation of Water Resources and EN 29: Sustainable Drainage). a. Does the proposal make best use of, and provide, mitigation where required to existing topography, site orientation, existing buildings, landscape features, trees and vegetation, and wildlife habitats? b. Are there any distinctive characteristics within the area, such as building form, styles, colours, and materials, or the character of streets and spaces, that the development should draw inspiration from?		

		c. Does the scheme reinforce existing access and connections and create new ones, and integrate into its surroundings by respecting existing buildings and land uses close by?		
	2.Water/Flooding Features Key questions/checks	The proposal should: 1. Ensure there is adequate drainage provision. This will ensure that surface water is appropriately controlled within the development site, flood risk is managed on-site and off-site, and any existing flood risk in the locality is not exacerbated; and 2. Avoid inappropriate[(34)] new development within areas at risk from flooding, or mitigate any potential impacts of new development within such areas whereby mitigation measures are integral to the design of buildings. (See also Policies EN 28: Flood Risk and EN 29: Sustainable Drainage). a. How has surface water runoff been considered in the scheme? b. Have areas at risk of flooding been avoided before mitigation measures have been considered?		
	3. Landscaping, Trees, and Amenity	1. Existing individual trees, or groups of trees, that contribute positively to		

		the area shall be retained. In accordance with Policy EN 14: Trees, Woodlands, Hedges, and Development, appropriate tree protection measures and provision for their long term management will be required; and 2. The proposal should be accompanied by an integral landscaping (both hard and soft) scheme, which contributes to, and enhances, the natural and local environment, including sympathetic boundary treatments; and 3. In rural areas, particular attention should be paid to the retention and addition of native vegetation appropriate to the local landscape character to help assimilate development into its rural setting, while in urban areas tree planting and soft landscaping, including green roofs and living walls, should be used where appropriate to green the urban environment and as part of any surface water drainage system; and 4. Any proposed new landscaping, and any existing landscaping to be retained, shall include adequate capacity for future tree growth where appropriate. (See also Policies EN 14: Trees, Woodland, Hedges, and Development, and EN 15: Ancient		

	Key questions/checks	Woodland and Veteran Trees). a. Is a tree survey to BS:5837 required to be submitted with the application? b. Has the use of hard and soft landscaping to define the difference between public and private areas been considered? c. Does the proposal responded to the Borough Landscape Character Area Assessment and the High Weald AONB Management Plan?		
	4. Biodiversity and Geodiversity	1. Within the design, the proposal must incorporate opportunities for increasing biodiversity potential, and retaining and enhancing blue/green infrastructure features, including sustainable drainage systems; and 2. Proposals that affect the existing biodiversity, geodiversity, and blue/green infrastructure of a site must be designed in a way that avoids or mitigates any potential harm, resulting in a net gain. (See also Policy EN 11: Net Gains for Nature: biodiversity, and Protection of Habitats Policies EN 12 and EN 13, Policy EN 16: Green, Grey, and Blue Infrastructure, Policy EN 28: Flood Risk, and Policy EN		

	Key questions/checks	29: Sustainable Drainage). a. Have the necessary and up to date surveys been undertaken? b. Does the scheme retain existing habitats and incorporate new ones? c. Is any mitigation or compensation required? d. Does the development proposal result in net gain of biodiversity?		
	5. Highway Safety and Access	1. Vehicular access, parking provision, and pedestrian movement should be safely accommodated and the new development should not significantly increase traffic to cause material harm to the safety of the local highway network in accordance with Policies TP 2: Transport Design and Accessibility and TP 3: Parking Standards; and 2. Any car parking or servicing should be appropriate to the context of the site, and designed and located so as not to cause material harm to visual amenity and dominate the street scene and public realm; and 3. The proposal shall include cycle storage and/or parking provision in accordance with Policy TP 3: Parking Standards.		

	Key questions/checks	a. Where should vehicles come in and out of the development? b. Is access to cycle and other vehicle storage convenient and secure? c. Are streets designed in a way that encourage low vehicle speeds and allow them to function as shared social spaces? d. How do the proposals enable active travel?		
	6. Residential Amenity	The proposal should not cause significant harm to the amenities of occupiers of neighbouring properties and uses, and should provide adequate residential amenities for future occupiers of the development by ensuring: 1. That development does not result in, or is exposed to, excessive noise, vibration, odour, air pollution, activity, or vehicular movements, or overlooking; and 2. That the built form does not create an unacceptable loss of privacy and overbearing impact, outlook, or daylight and sunlight enjoyed by the		

	Key questions/checks	occupiers of adjacent/nearby properties. (See also Policies H 15: Residential Extensions, alterations, outbuildings and annexes inside the Limits to Built Development and H 16: Residential Extensions, alterations, outbuildings and annexes in the Green Belt and outside the Limits to Built Development). a. Is the spacing between buildings adequate, and would there be any overlooking between, or loss of daylight/sunlight to, habitable room windows, resulting in an overbearing impact to any neighbouring properties?		
	7. Inclusivity and access for all Key questions/checks	New development should create designs and layouts that are accessible to all, and maintain and maximise opportunities for permeability and linkages to the surrounding area, existing public rights of way, local services, and access to amenity open space, including through public transport and opportunities for cycling. Is the development easy to navigate and does it provide easy access for all?		
	8. Internal and External Storage	New development should incorporate measures for the adequate storage		

		of waste, including provision for recyclable waste, as well as for bicycles and domestic paraphernalia.		
	Key questions/checks	a. Is there adequate external storage, or easily accessible internal storage space, for waste, so it is less likely to be left out on the street? b. Does the design, positioning and screening of bin areas provide a safe and acceptable location for bin collections?		
	9. Access to public and private spaces and crime reduction	The proposal should create a safe and secure environment, and incorporate adequate security measures and features to deter crime, fear of crime, disorder, and anti-social behaviour.		
	Key questions/checks	a. Are public and private spaces clearly defined and designed with appropriate access, which is able to be well managed and safe to use? b. What types of amenity space would be provided within the development and how will they be looked after? (See also Policy OSSR2: Provision of publicly accessible open space and recreation)		
	10. New technologies	New developments must include		

		infrastructure that meets modern communication and technology needs, and restricts the need for future retrofitting. Such infrastructure should include broadband, fibre to the premises (FTTP) where possible, high speed internet cabling/ducting, and provision of a power supply and infrastructure that would support green technology initiatives, such as electric car charging points. (See also Policies EN2: Sustainable Design and Construction, ED3: Digital Communications and Fibre to the Premises and TP2: Transport Design and Accessibility)		
	Key questions/checks	Is there appropriate broadband infrastructure and would FTTP be possible?		
	11. Design Guidance	Account must be taken of the guidance documents (and any successive guidance) listed above in paragraph 6.14, where relevant, including Supplementary Planning Documents, the Kent Design Guide, Building for Life 12, Conservation Area Appraisals, the High Weald AONB Management Plan, the High Weald AONB Design Guidance, and related supporting		

	guidance. Key questions/checks How has the relevant guidance been used to determine and assess the distinctive character and identity of the scheme and how it relates to the existing character of the borough?		
	12. Early engagement with the community and other relevant stakeholders New development should be informed by effective engagement between applicants, communities, neighbours of sites, local planning authorities, infrastructure providers and other interests throughout the planning process. Applications that can demonstrate early, proactive, and effective engagement with the community will be looked on more favourably than those that cannot. Key questions/checks a. Can the applicant demonstrate early, proactive, and effective engagement with the community, stakeholders, planning and infrastructure authorities/organisations, etc? b. How has the proposed design evolved to take account of views expressed through engagement, and to reconcile local and commercial interests?		
Policy EN 2: Sustainable	All development proposals must demonstrate that sustainable development is	There are no LSEs of this	There are no LSEs of this

Design and Construction	integral to the design, construction, and operation of the proposal, and considered from the beginning of the design process. To do this, developers must follow the 12 steps below: Site Location and Layout	1. Prioritise development in locations with frequent and easily accessible public transport services that provide useful links to key facilities such as GP surgeries, train stations, shopping areas and schools. Where necessary, enhanced public transport services should be provided through contributions. 2. Prioritise development in locations which encourage active travel such as walking and or cycling to key facilities such as local GP surgeries, train stations, shopping areas and schools. This includes consideration of local topography and the Chartered Institute for Highways and Transportation's 'Desirable Walking and Cycling Distances' (or an evidence based equivalent). Where necessary, enhanced pedestrian and cycling links should be provided through contributions. 3. Design the site layout to make the most efficient use of land and re-use existing buildings where feasible. 4. Preserve, and where possible enhance, heritage assets, ecosystem	policy alone. This policy outlines criteria for sustainable design and construction. It includes the positive element of preserving and enhancing biodiversity. The policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

		services, biodiversity and green infrastructure including food growing facilities. See Policies EN6, EN7, EN11 and EN16.		
	Development Design	5. Minimise carbon dioxide emissions through energy efficiency improvements and facilitating low and zero carbon technology. See Policies EN4, EN5, TP1 and TP2.		
		6. Ensure development can adapt to the needs of changing uses over its lifetime.		
		7. Ensure development encourages positive behaviour change such as provision of drinking fountains to discourage purchase of single use plastic.		
		8. Provide sufficient public and private outdoor and recreational space. See Policy OSSR2.		
		9. Use water efficiently by meeting or exceeding the highest national water efficiency standards and incorporating facilities to recycle, harvest and conserve water resources. See Policy EN27.		
		10. Adapt to impacts from climate change. See Policies EN5 and EN29 which includes information on SUDs.		
		11. Wherever possible, procure materials that:		

	Development Construction i. are sustainably sourced materials by using local suppliers and choosing materials with low embodied carbon such recycled or secondary aggregates. ii. can be easily reused or recycled at the end of their life. 12. Follow the waste hierarchy by first minimising the generation of waste and then maximising reuse or recycling. For all development, sending waste to landfill must be a last resort. These requirements should be clearly demonstrated within a Design and Access Statement containing detail proportionate to the size of the development. For development proposals of over 20 units or 2,000sqm floorspace new build or conversion, a Construction Environmental Management Plan will be required that provides details on all applicable topics above. Targets for diversion of waste from landfill and responsible procurement should be set by developers wherever possible. Registration with the Considerate Constructors Scheme (or equivalent) is strongly encouraged.		
Policy EN 3: Sustainable Design Standards	The following minimum design standards must be achieved for all major non-residential developments in the time frames shown. For residential developments, achieving the following minimum design standards will be strongly encouraged until national policy allows otherwise. **YEAR**	There are no LSEs of this policy alone. This policy details sustainable design standards. The policy	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this

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<tr><th></th><th></th><th>2021-2025</th><th>2026-2030</th><th>2031 onwards</th></tr>
<tr><td>Residential</td><td>10 – 150 dwellings</td><td>HQM 3 Stars</td><td colspan="2">HQM 4 Stars</td></tr>
<tr><td></td><td>> 150 dwellings</td><td colspan="3">HQM 4 Stars</td></tr>
<tr><td>Non Residential</td><td>1000 – 5000m^2</td><td>BREEAM Very Good</td><td colspan="2">BREAAM Excellent</td></tr>
<tr><td></td><td>> 5000m^2</td><td colspan="3">BREEAM EXCELLENT</td></tr>
</table>

Where, HQM is the 'Home Quality Mark' and BREEAM is the 'Building Research Establishment Environmental Assessment Method'.

Developers must begin work to obtain the required design standard at an early stage in the design process so benefits can be maximised, and this should be demonstrated in a Design and Access Statement.

Compliance with this policy should be demonstrated via:

‘pre-assessment estimator’ at application stage
‘interim design’ (HQM) or ‘design stage’ certificates prior to construction
final certificates for all schemes six months post completion.

Developers implementing an alternative standard should submit equivalent certificates for each of these stages.
</td>
<td>neither provides the quantum or location of new development.

Therefore, there are no impact pathways present and this policy can thus be screened out.</td>
<td>policy can thus be screened out ‘in-combination’.</td>
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<tr>
<td>Policy EN 4: Energy Reduction in New Buildings</td>
<td>Proposals for zero carbon and low emission development are strongly supported, subject to all other material considerations being acceptable.

The Local Authority requires new development to incorporate design features that help deliver radical reductions in greenhouse gas emissions, particularly CO2 emissions, and thus help mitigate climate change impacts. This will be achieved using the measures set out below unless superseded by national</td>
<td>There are no LSEs of this policy alone.

This is a positive policy aiming for a reduction in energy usage and greenhouse gas</td>
<td>There are no LSEs of this policy ‘in-combination’ with other plans.

There are no impact pathways present and this policy can thus be screened</td>
</tr>
</table>

	policy or legislation: 1. A 'fabric first' approach in which all new development is required to reduce CO2 emissions by at least 10% reduction over the Target Emission Rate (TER) as set out in Building Regulations Part L (2013); and 2. Requirement for major development to reduce site-wide CO2 emissions by 15% using renewable energy generating technology, which would be installed on site. The 15% reduction would be calculated only after the 'fabric first' approach has been applied. The 'fabric first' approach should be based upon a consideration of U-values, thermal bridging, air permeability, and thermal mass, and also features that affect lighting and solar gains, such as building orientation and layout. Renewable energy generating technology includes photovoltaics, solar hot water, air source heat pumps, ground source heat pumps, wind turbines, hydropower, and biomass boilers. Low carbon technology presented as an alternative to renewable energy generating technology, such as Combined Heat and Power (CHP), will be considered on a case by case basis. The choice of technology to be installed will have consideration for site constraints such as shading, local air quality, and sensitive features such as the landscape and historic environment. All energy calculations should be made using recognised calculators such as the Standard Assessment Procedure (SAP) or Home Quality Mark method for residential buildings, or the Simplified Building Energy Model (SBEM) for non-residential buildings. The calculations should include all regulated emissions such as fixed heating, lighting, hot water, and ventilation. Unregulated emissions from appliances such as white goods are considered to be outside of the scope of the Local Planning Authority. Compliance with this policy should be demonstrated with a design stage Energy Strategy Report (major development) or Energy Statement (minor development), which is revisited during the construction phase to confirm its predictions are still valid and thus help avoid a 'performance gap'. Both	emissions for new buildings. The policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	out 'in-combination'.

	submissions should contain adequate information to demonstrate how the energy hierarchy has been followed and how the 10% 'fabric first' energy reduction target (all development) and 15% renewable energy target (major development only) will be achieved. The level of detail provided should be proportionate to the size of the development.		
Policy EN 5: Climate Change Adaptation	The Local Planning Authority will support proposals that allow communities, infrastructure, businesses, and the natural environment to adapt to the impacts of climate change, subject to all other material considerations being acceptable. These include, but are not limited to, the following measures: 1. Protection, and provision, of well connected, green infrastructure that facilitates native species' movements, facilitates sustainable drainage, provides natural shading, and is well adapted to summer drought and increased winter rainfall (refer to Policy EN 16: Green, Grey, and Blue Infrastructure); 2. Reduction in flood risk and provision of infrastructure to protect vulnerable communities and habitats, and minimisation of water consumption. Refer to Water Policies EN 27, EN 28, and EN 29; 3. Reduction in the urban heat island effect by consideration of road and building surface materials and the role of green infrastructure; 4. Support for proposals that allow for more resilient forestry and agricultural practices; 5. Buildings designed and built to avoid overheating, especially those for vulnerable users such as hospitals, schools, and elderly care homes, by following the cooling hierarchy below, in order of greatest preference: a. Minimise internal heat generation through energy efficient design; b. Reduce the amount of heat entering a building in summer through orientation, shading, albedo, fenestration, insulation, and green roofs and walls; c. Manage the heat within the building through exposed internal thermal mass and high ceilings;	There are no LSEs of this policy alone. This is a positive policy outlining the protection of green infrastructure to facilitate the movement of native species. The policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	d. Passive ventilation; e. Mechanical ventilation; and f. Active cooling systems (ensuring they are the lowest carbon options). The latest strategy published by the National Adaptation Programme should be referred to for advice.		
Policy EN 6: Historic Environment	Proposals for development will be required to reflect the local distinctiveness, condition (state of repair), and sensitivity to change of the historic environment as defined in the guidance listed above in paragraph 6.50. All new development shall commit to the overall conservation and, where possible, enhancement, of the historic environment of the borough, by demonstrating how it has regard to the advice set out in current government historic environment policy and guidance, including Historic England Good Practice Advice Notes and Historic Environment Advice Notes, and the themes in the Historic Environment Review. All proposals shall demonstrate: 1. How the development proposal would preserve or enhance the historic environment; 2. A clear consideration of the relationship of the proposal with the historic evolution of the borough; 3. An assessment of the historic character of the local area, including current conditions; and 4. An understanding of the presence of heritage assets and their setting and associated significance, vulnerabilities, and opportunities.	There are no LSEs of this policy alone. This policy relates to the provision of development in line with the historic character of TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 7: Heritage Assets	Proposals that affect a designated or non-designated heritage asset, or its setting, will only be permitted where the development conserves or enhances the character, appearance, amenity, and setting of the asset; and in the case of historic parks and gardens, provides, where possible, improvement of access to it.	There are no LSEs of this policy alone. This policy relates to heritage assets present in	There are no LSEs of this policy 'in-combination' with other plans. There are no impact

	Applications will be assessed with reference to the following: 1. The historic and/or architectural significance of the asset; 2. The prominence of its location and setting; and 3. The historic and/or architectural significance of any elements to be lost or replaced. Proposals should also comply with the advice set out in the Conserving and Enhancing the Historic Environment Section of the NPPF (and any subsequent versions). Any development that might directly or indirectly affect the significance of a listed building, conservation area, historic park and garden, scheduled ancient monument, historic landscape (including ancient woodland and veteran trees), archaeological site, or local heritage asset, will be required to submit a heritage statement, and/or where applicable, an archaeological assessment and/or management plan as above for historic parks and gardens, with any planning application, which can be included within a design and access statement. This includes development affecting their setting. The assessment of proposals should make reference to the Tunbridge Wells Borough Historic Environment Review, the Council's List of Local Heritage Assets, which includes buildings and historic parks and gardens of local importance, and relevant guidance. Although the Council does not hold an exhaustive list of non-designated heritage assets, it should be noted that these are often identified at the application stage of any proposal. Should permission be granted for the removal of part or all of a heritage asset, the Local Planning Authority will not permit the removal or demolition of the heritage asset until it is proven that the approved replacement development will proceed.	TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 8: Shop Fronts	Shop fronts that are of historic interest and architectural merit should be retained and those that have been lost should be reinstated. Proposals for	There are no LSEs of this policy alone.	There are no LSEs of this policy 'in-combination' with

	new shop fronts, or alterations to existing shop fronts, will only be permitted where all of the following criteria are satisfied: 1. The shop front is correctly proportioned in relation to the width of the property (or a logical vertical sub-division created by the upper storey), in sympathy with the architectural style, materials, and form of the building(s) of which it would form part, except in cases where the building itself is architecturally incompatible with the character of the area. Where a single unit of occupation has been formed by amalgamating shop units, shop front design should relate to the original unit widths; and 2. The shop front is in sympathy with the predominant architectural style and materials of neighbouring properties and the surrounding area; and 3. Any blinds and security measures (where demonstrated to be necessary) shall be designed and sited to be unobtrusive and shall not harm the character and appearance of the building nor the street frontage; and 4. Where a fascia is to be applied, it will be of an appropriate height, in scale with the overall height of the shop front and other elements of the building, and not intrude over the first floor level; and 5. Where illumination is required, it should be restrained and unobtrusively sited, within the context of the appearance of the building and its setting in accordance with the advice set out in the Professional Institute of Lighting Engineers Guidance Note 1 relating to The Reduction of Obtrusive Light; and 6. In conservation areas and premises fronting Camden Road, St John's Road, and Silverdale Road, Royal Tunbridge Wells, and London Road, Southborough, as defined on the draft Policies Map, the proposal will not result in the loss of a traditional shop front, or features and details of architectural or historic interest.	This policy details the character of shop fronts within TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 9: Advertisements	All advertisements will be required to satisfy all of the following criteria:	There are no LSEs of this policy alone.	There are no LSEs of this policy 'in-combination' with

	1. No advertisement should be obtrusive in appearance, appear dominant or overbearing in the street scene or landscape, cause visual clutter or result in a proliferation of signs, or cause significant harm to the appearance of any building or site on which it would be displayed because of its size, design, construction, or materials; 2. Where illumination is required, lighting sources should be unobtrusively sited, within the context of the appearance of the building and its setting, and the level of illumination should not cause significant harm to visual and residential amenity, having regard to the standards set out in the Institute of Lighting Professionals Guidance Note GN01: The Reduction of Obtrusive Light (or any successive guidance); 3. Any illumination shall only be in use during business open hours; 4. No advertisement should be so distracting or confusing that it would endanger highway or public safety; and 5. In conservation areas, on listed buildings and non-designated heritage assets, the advertisement and any form of illumination shall be designed, constructed, and sited so as to preserve or enhance the special character and appearance of the building and/or conservation area.	This policy details the nature of advertisement within TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 10: Outdoor Lighting and Dark Skies	In rural areas outside the Limits to Built Development there will be a presumption against outdoor lighting, except where it is for a reasonable level of safety or security, or other exceptional circumstances exist. Under such exceptional circumstances, and inside the Limits to Built Development, outdoor lighting will only be permitted where all of the following criteria are met: 1. The levels of lighting provided are the minimum amount necessary to achieve the purpose for which it is provided and is broadly consistent with the views of the local parish or town council, or otherwise justified on safety or security grounds;	There are no LSEs of this policy alone. This policy details the plan for outdoor lighting within TWB, aiming at the minimization of obtrusive light sources. It neither provides the quantum or location of new development.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	2. The design and specification of lighting would minimise obtrusive light, in accordance with the Institute of Lighting Professionals Guidance Note GN01 (or any subsequent guidance) treating all rural areas as "*intrinsically dark with natural surroundings*"; 3. There are suitable controls where necessary to allow automated switching and dimming; 4. The means of lighting would not cause an unacceptable level of impact on wildlife, local heritage assets, or the wider landscape; 5. Low energy LED lighting would be used; and 6. Where floodlighting of a landmark feature is proposed, the level and type of illumination would enhance the feature itself and be designed so as not to cause a nuisance.	Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy EN 11: Net Gains for Nature: biodiversity	Development will only be permitted where it meets all of the following criteria: 1. It can demonstrate to the satisfaction of the Council through the application of an acceptable method of measurement, or impact assessments, that completion of the development will result in a measurable long term net gain for biodiversity; 2. It can be demonstrated that the proposals have adopted a strict approach to the mitigation hierarchy (i.e. avoid, mitigate, compensate) and are able to justify all unavoidable impacts on biodiversity; and 3. The proposed measures for mitigation, compensation, and/or net gain are acceptable to the Council in terms of design and location, and are secured for the lifetime of the development with appropriate funding mechanisms that are capable of being secured by condition and/or legal agreement.	There are no LSEs of this policy alone. This is a positive policy outlining that all development must satisfy strict criteria, including biodiversity net gain and appropriate mitigation measures. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

Policy EN 12: Protection of Designated sites and habitats	Development proposals that would have a direct or indirect adverse effect on the nature conservation or geological interest of a designated site of national, regional, or local importance will only be permitted if all of the following criteria are satisfied: 1. The need for the development would clearly outweigh the affected nature conservation interest of the site; 2. There would be no reasonable, less damaging, alternative solutions, locations, or sites; 3. The design and layout of the scheme would minimise the potential impact on notable habitats, species, and any public enjoyment or access to the site; 4. That compensation is provided in accordance with Policy EN 11: Net Gains for Nature: biodiversity above; and 5. In the case of designated geological sites: a. The geological interest of the site, and access to it, is not compromised; b. Where possible, access and/or interpretation is improved.	There are no LSEs of this policy alone. This is a positive policy outlining that all development must satisfy strict criteria. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 13: Ashdown Forest Special Protection Area and Special Area of Conservation	All development that results in a net increase in housing within the 7km defined zone [45] of influence, as set out in the Council's Ashdown Forest Practice Note (2018), will provide a Strategic Access Management and Monitoring (SAMMs) contribution to address the impact of visitors from new development on Ashdown Forest. Contributions will be sought in accordance with the prevailing SAMM Strategy adopted by the Local Planning Authority and in force at the time of the application. Alternative provision(s) for mitigation to address the impact of visitors will only be considered where it can be demonstrated that it will be effective and deliverable over the lifetime of the development. Proposals for major development within, or adjacent to, the zone of influence will be considered on a case by case basis in accordance with the	There are no LSEs of this policy alone. This is a positive policy extending specific importance to the protection of Ashdown Forest SPA / SAC, including the contribution of TWB to a SAMMs strategy for housing within 7km. It neither provides the quantum or location of new development.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	requirements of the Habitats Directive to determine what, if any, mitigation is required, including SANGs.	Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy EN 14: Trees, Woodlands, Hedges, and Development	Planning permission will not normally be permitted where the proposal adversely affects important trees, woodlands, and hedgerows, especially those that are: 1. Protected by a Tree Preservation Order (TPO); and/or 2. In a conservation area; and/or 3. Ancient woodlands or ancient and veteran trees; and/or 4. In historic parks and gardens; and/or 5. Within a recognised Nature Conservation Site; and/or 6. In a recognised Area of Landscape Importance; and/or 7. Important landscape or townscape trees; and/or 8. An important contribution to green infrastructure or other important networks. There will be a presumption in favour of the retention and enhancement of existing trees, woodland, and hedgerow cover on site, unless: a. The removal of any trees would be in the interests of good arboricultural practice; or b. The desirability of the proposed development outweighs the amenity value of any trees or hedges removed. Where there is an unavoidable loss of trees on site, however, an appropriate number of suitable replacement trees (in terms of species and size) will be required to be planted on site. In exceptional circumstances; for example, where there is no appropriate space for planting on site, or the site is a constrained site within an urban setting, planting of suitable replacements (in terms of species and size) off site will be sought by way of appropriate funding mechanisms that are capable of being secured by condition and/or legal	There are no LSEs of this policy alone. This is a positive policy extending protected status to important trees, woodlands and hedges. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	agreement. Appropriate management measures will be required to be implemented to protect newly planted and existing trees, woodlands and/or hedgerows. Advice note: Where trees on, or adjacent to, the site are likely to be affected by development, tree survey information in accordance with the current recommendations of BS 5837: Trees in Relation to Design, Demolition and Construction (or subsequent revision) should be submitted with planning applications as appropriate. The tree survey information should include protection, mitigation, and management measures, including arboricultural site supervision where required.		
Policy EN 15: Ancient Woodland and veteran Trees	Loss or deterioration of irreplaceable habitats, including ancient woodland and aged or veteran trees found outside ancient woodland, resulting from development proposals shall not be allowed unless there are wholly exceptional reasons; for example, infrastructure projects (including nationally significant infrastructure projects or orders under the Transport and Works Act), where the public benefit would clearly outweigh the loss or deterioration of habitat; and in such circumstances appropriate compensatory measures and planting for loss of any ancient woodland or veteran trees will be sought. Where ancient wood pasture and historic parkland are identified, they shall receive the same consideration as other forms of ancient woodland. Where development proposals may affect ancient woodlands, including translocated woodlands (translocated ancient woodlands will be treated the same as if they are ancient woodland), veteran trees, and their immediate surroundings, the following principles shall be used to guide the design of development: 1. Avoidance of harm; and 2. Provision of unequivocal evidence of need and benefits of the proposed	There are no LSEs of this policy alone. This is a positive policy extending protected status to ancient woodland and veteran trees. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	development; and 3. Provision of biodiversity net gain; and 4. Establishment of the likelihood and type of any impacts; and 5. Implementation of appropriate and adequate mitigation, compensation, and management measures that respect the features and characteristics of the veteran trees and/or ancient woodland; and 6. Provision of adequate buffers; and 7. Provision of adequate evidence to support development proposals.		
Policy EN 16: Green, Grey and Blue Infrastructure	Development proposals will be expected to identify and protect existing green, grey, and blue infrastructure and identify opportunities for new infrastructure where it supports climate change adaptation and ecosystem services, and where it makes a positive contribution to strengthening and restoring a healthy and integrated network of habitats and green spaces for the benefit of nature, people, and the economy. Green, grey, and blue infrastructure may be a multi-functional feature, or provide improved connections for people, or stepping stones/corridors for wildlife. Proposals for new green, grey, and blue infrastructure should be informed by and respond to: 1. Biodiversity opportunity areas statements; 2. County and borough green infrastructure plans and mapping; 3. Ecological surveys and identified priority habitats; 4. Kent Nature Partnership Biodiversity Action Plan; 5. Landscape character assessments; 6. River catchment management plans. Opportunities for green (and grey and blue) infrastructure should have regard to other relevant policies for landscape, heritage, biodiversity, and trees and include, but are not limited to: a. Landscape buffers; and/or b. Green routes for walking and cycling; and/or c. Swales and attenuation ponds as part of Sustainable Drainage Systems	There are no LSEs of this policy alone. . This is a positive policy extending the responsibility to new development proposals to protect biodiversity and ecosystem services. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	(SuDS); and/or d. Woodland creation; and/or e. Reinstatement of historic field patterns and hedgerows; and/or f. Restoration of important habitats and landscape features, such as gill streams, ponds, meadows, and heaths; and/or g. Creation of ponds and wetlands for wildlife. Even in urban areas where there is little existing green and blue infrastructure, all developments are expected to maximise opportunities for green and blue infrastructure and biodiversity enhancements with a particular emphasis on water management, atmospheric pollution, and urban wildlife and can include, but are not limited to, the following measures: i. Green/brown roofs and green walls; and/or ii. Rain gardens; and/or iii. Street tree and hedge planting; and/or iv. The addition of bird and bat boxes for urban species as indicated in Policy EN 11: Net Gains for Nature: biodiversity.		
Policy EN 17: Local Green Space	A Local Green Space is a designated area of green or open space that is demonstrably special to the local community that it serves. These areas can include recreational playing fields or playgrounds, allotments, cemeteries, or local forested areas used for recreation. Development on these areas will not be permitted unless one of the following criteria is met: 1. The proposed development constitutes very special circumstances (such as essential utility infrastructure) that justify the need for development and it can be demonstrated that the need cannot reasonably be met outside the designated area or in some other less harmful way. Where this is the case, the public benefits of the development must demonstrably outweigh the harm caused to the designated area of Local Green Space; or 2. The proposed development would incorporate and preserve the main features, use, and purpose of the designated area of Local Green Space on the same development site, including, where already in existence, continued	There are no LSEs of this policy alone. This is a positive policy aiming at the preservation of local green spaces. This is important because the accessibility of such local space will reduce the likelihood of people visiting the Ashdown Forest SPA / SAC, and as such could contribute to reducing recreational disturbance. This policy neither provides the	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	community access to the area. The proposals may involve plans to expand the existing Local Green Space and/or improve its existing use and purpose, such as new recreational facilities; or 3. The proposed development does not materially reduce the community use, detract from the function, or affect the appreciation of the designated area of Local Green Space. There will be acceptable provision to offset any loss of, or detriment to, the area of Local Green Space on, or close to, the site. For a full schedule of the designated Local Green Space sites in the Tunbridge Wells borough, see Appendix 2. All sites are also defined on the draft Policies Map.	quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy EN 18: Landscape within the built environment	Proposals for development affecting Areas of Important Open Space, Areas of Landscape Importance, or the Important Landscape Approaches to settlements, as defined on the draft Policies Map, will only be permitted in limited circumstances where no significant harm would be caused to the appearance and character of the area or approach, and the development would not materially detract from the contribution that area or approach makes to the locality. Where it is considered possible, the Local Planning Authority will ensure that the area is conserved and enhanced as part of the proposal. The effects of proposals on areas of landscape interest that are not covered by the above designations will be assessed in accordance with other relevant policies, including: Policies EN 1: Design and other development management criteria, EN 11: Net Gains for Nature: biodiversity, EN 14 Trees, Woodlands, Hedges, and Development and EN 16 Green, Grey and Blue Infrastructure.	There are no LSEs of this policy alone. This is a positive policy aiming at the protection of Important Open Space. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact pathways present and this policy can thus be screened out ‘in-combination’.
Policy EN 19: Arcadian Areas	Proposals for development that would affect the character or appearance of an Arcadian Area, as defined on the draft Policies Map, will only be permitted if all of the following criteria are satisfied: 1. The proposal would result in a low density of development where building	There are no LSEs of this policy alone. This policy details the protection of Arcadian	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact

	heights, site coverage, distance from site boundaries, and front and rear building lines respect the predominant characteristics of the area; and 2. Existing and proposed landscaping, including adequate capacity for future plant growth, would dominate within the site and along boundaries; and 3. Access widths would be narrow; and 4. Buildings and parking would be well concealed in views from public places.	Areas within TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 20: Rural Landscape	Development will be required to: 1. Conserve and enhance the unique and diverse variety and juxtaposition of the borough's landscape and the special features that contribute positively to the local sense of place; and 2. Not cause significant harm to the landscape setting of settlements, including historic farmsteads and hamlets; and 3. Not result in unsympathetic change to the character of a rural lane, which is of landscape, amenity, nature conservation, or historic or archaeological importance; and 4. Restore landscape character where it has been eroded; and 5. Preserve intrinsically dark landscapes in accordance with Policy EN 10: Outdoor Lighting and Dark Skies.	There are no LSEs of this policy alone. This policy details the protection of TWB's rural landscape. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 21: High Weald Area of Outstanding Natural Beauty (AONB)	All development within, or affecting the setting of, the High Weald AONB shall seek to conserve and enhance its landscape and scenic beauty, having particular regard to the impacts on its character components, as set out in the High Weald AONB Management Plan. Development in the AONB on sites not allocated in the Local Plan will need to be of a limited scale appropriate in terms of its nature and location, and demonstrate a positive contribution to the objectives of the AONB Management Plan, and will need to:	There are no LSEs of this policy alone. This is a positive policy aimed at preserving the scenery and landscapes of the High Weald AONB. This policy neither provides the quantum or	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	1. Be sensitive to the topography and landscape features of the location; 2. Improve where possible connections between settlements and countryside through the provision of high quality green infrastructure (see Policy EN 16: Green, Grey, and Blue Infrastructure); 3. Protect, enhance, and restore ancient routeways; 4. Retain and support the distinctiveness of individual settlements; 5. Help restore the natural functioning of water courses; 6. Improve the management of associated agricultural land, woodland, and heaths; and 7. Where possible and appropriate, improve public access to the countryside providing way marking and interpretation material to assist in the public enjoyment, appreciation and understanding of the AONB. Major development in the AONB is defined in the NPPF paragraph 172 and footnote 55 (or subsequent revision). Proposals for major development in the AONB will need to demonstrate exceptional circumstances and be assessed against the three tests in the NPPF (or subsequent revisions), including the possibility of alternatives to meet the identified need.	location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy EN 22: Agricultural Land	The Local Planning Authority seeks to protect best and most versatile agricultural land from significant, inappropriate or unsustainable development. Where development of agricultural land is required, applicants should seek to use areas of poorer quality agricultural land in preference to that of higher quality except where this would be inconsistent with other sustainability objectives. Planning applications that would result in the loss of best and most versatile agricultural land will need to justify why the loss of the agricultural land is acceptable and also assess the impact of the loss of the agricultural land on the wider farming resource and ecosystem services. Where site specific ALC studies are not available the Local Planning Authority will assume that the site is classified as best and most versatile.	There are no LSEs of this policy alone. This is a policy outlining the protection of agricultural land from development. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact pathways present and this policy can thus be screened out ‘in-combination’.
Policy EN 23: Air Quality	In the interests of improving air quality borough-wide, all major and minor development* in the borough is required to install the following small-scale mitigation measures:	There are no LSEs of this policy alone.	There are no LSEs of this policy ‘in-combination’ with other plans.

	1. Low NOx boilers, i.e. those emitting less than 40mg NOx per kWh; and 2. Electric vehicle charging infrastructure (points and cabling; or any new technology requirements); and 3. Cycle storage that is sufficient and convenient (see Policy TP 3: Parking Standards). In accordance with Policy TP 1: Transport Assessments and Travel Plans, transport assessments and travel plans are required for proposals above the limits set out in Table 8. Policies STR 6: Transport and Parking, TP 1: Transport Assessments and Travel Plans, and TP 2: Transport Design and Accessibility, also set out that contributions towards mitigation measures may be considered necessary. Early (pre-application) engagement with the Local Planning Authority is required: at this stage, sensitive receptors will be considered and the Local Planning Authority will also decide if the application needs to be accompanied by a full and detailed assessment of the likely impact of airborne emissions predicted to result from the development (see Air Quality Topic Paper for further details). Where detailed assessments are required, developers should liaise with the Local Planning Authority to consider cumulative impacts. Developments are expected to be at least air quality neutral, with air quality positive proposals strongly encouraged. Development will not be permitted when it is considered that unacceptable effects will be imposed (that are incapable of being overcome by a condition or planning obligation) on the health, amenity, or natural environment of the surrounding area, taking into account the cumulative effects of other proposed or existing sources of air pollution in the locality. Sensitive receptors will be considered at all times.	This is a positive policy outlining the Local Plan's objective to improve the air quality in the borough, particularly through reducing nitrogen deposition. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	The use of sustainable transport measures, such as supporting sustainable public transport, shared transport initiatives, cycle/footways, improved connectivity and green infrastructure (for example, green roofs, hedges, and street trees) to reduce pollution concentrations and exposure, are strongly encouraged (see Policies STR 5: Essential Infrastructure and Connectivity, STR 6: Transport and Parking, and Policies TP 2: Transport Design and Accessibility, TP 3: Parking Standards, OSSR 1: Retention of Open Space, OSSR 2: The Provision of Publicly Accessible Open Space and Recreation, and EN 16: Green, Grey, and Blue Infrastructure). * please see Glossary at Appendix 4.		
Policy EN 24: Air Quality Management Areas (AQMA)	Where development is in, or able to impact upon, an AQMA, and an increase in road traffic is identified in a transport assessment or travel plan, the approach outlined in Policy EN 23: Air Quality must be followed. In addition, any development within, or close to, an AQMA that may impact on the AQMA or zone will be required to undertake an emissions mitigation assessment and cost calculation. Requirements also apply in the event that the Council designates an 'Air Quality Protection Zone' or equivalent. Subject to the results of the assessment and calculation, a Section 106 agreement will be used to secure contributions to mitigate this impact.	There are no LSEs of this policy alone. This is a positive policy outlining the provision of AQMAs in TWB. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 25: Biomass Technology	The Local Planning Authority will support the deployment of biomass technology in locations off the gas grid where coal and oil-fired plant are currently used and where no cleaner or greener feasible alternative is available. The developer will reduce potential air quality impacts from the expansion in biomass heat through the use of high quality, low emission plant. Applications for biomass burners (i.e. for those that require planning permission and are not 'permitted development') will require a detailed Air	There are no LSEs of this policy alone. This policy details the provision of biomass technology across TWB. It neither provides the quantum or location of new development.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Quality Assessment that, as a minimum, will include the following information: 1. The thermal capacity of the proposed biomass technology, and, if possible, its make and model; and 2. The type of fuel to be used (preferably locally sourced); and 3. Confirmation that it will be an approved appliance, compliant with Defra's latest guidance and the Clean Air Act; and 4. The precise location of the proposed stack(s). Applications for biomass technology that burn fuel at a rate of greater than 45.4kg/hr will be required to gain chimney height approval from the Local Planning Authority.	Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy EN 26: Water Quality, Supply and Treatment	All major development must demonstrate that there is, or will be, adequate water supply and wastewater treatment facilities in place to serve the whole development (including all phases where applicable). Improvements to supply and treatment facilities, the timing of their provision, and funding sources will be critical to the delivery of development. All development must provide a connection to the sewerage system at the nearest point of adequate capacity and follow advice from the service provider. Access to the existing sewerage system must be provided for future maintenance and upsizing purposes. Development will be only permitted where it can be demonstrated that it would not result in: 1. Unacceptable risk to the quality or quantity of surface and ground water resources (including reservoirs); or 2. Changes to ground water and surface water levels that result in adverse impacts on: a. Adjoining land; and/or b. The quality of ground water resources or potential ground water resources; and/or	There are no LSEs of this policy alone. This policy contains the positive provision of ensuring adequate water supply and wastewater treatment throughout TWB to support the anticipated increase in population. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	c. The potential yield of ground water resources, river flows, or natural habitats. Work beneath the water table will not be permitted unless there is a comprehensive ground water management scheme agreed for the construction, operation, restoration, and on-going management of the proposal.		
Policy EN 27: Conservation of water resources	All development must be planned positively to minimise its impact on water resources. This includes: 1. Minimising use of mains water; and 2. Incorporating water saving measures, such as rainwater harvesting and greywater recycling systems (in both new development and by retrofitting existing buildings). All new residential dwellings must be designed to achieve a maximum water consumption rate of 110 litres per person per day, as measured in accordance with an approved methodology. New development that supports South East Water's Water Resources Management Plan will be supported. Development that requires an abstraction licence from local watercourses will only be permitted in exceptional circumstances and where it can be demonstrated that there will be no significant adverse impact on the ecological functioning of the watercourse.	There are no LSEs of this policy alone. This policy contains the positive provision of reducing the pressure on TWB's water resources. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy EN 28: Flood Risk	Proposals for new development should contribute to an overall flood risk reduction, and development will only be permitted where it would not be at an unacceptable risk of flooding on the site itself, and there would be no increase to flood risk elsewhere. The sequential test and exception tests established by the NPPF will be strictly adhered to across the borough. Where it is demonstrated that	There are no LSEs of this policy alone. This policy outlines the Borough's aim to reduce flood risk. It neither provides the quantum or	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened

	development is unable to take place in an area of lower flood risk, essential transport or utility infrastructure, or other appropriate development may be allowed as per an exception test if the development is designed to be compatible with potential flood conditions, and: 1. Suitable flood protection and mitigation measures are incorporated into the development appropriate to the nature and scale of risk; 2. Comprehensive management and maintenance plans are in place for its effective operation during the lifetime of the development (taking account of climate change); 3. Adoption arrangements are secured (where applicable) with the relevant public authority or statutory undertaker; 4. It can be demonstrated to the satisfaction of the Council that adequate resistance and resilience measures have been put in place to avoid any increase in flooding, either on site or elsewhere. Site-specific Flood Risk Assessments (FRA) will be required for the following development proposals: a. Sites within Flood Zones 2 and 3; and/or b. Sites in Flood Zone 1 that: i. are larger than one hectare; or ii. have been identified as having critical drainage problems; or iii. have been identified in a SFRA as being at increased flood risk in the future; or iv. may be subject to other sources of flooding. The site-specific Flood Risk Assessment shall be in accordance with guidance set out within the Council's Strategic Flood Risk Assessment, including the requirement for a contribution towards any necessary new flood defence or mitigation measures. Where relevant, the assessment should also address	location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	out 'in-combination'.

	the risk of flooding from surface water, ground water, and ordinary watercourses. Where there is evidence that water from these sources either ponds or flows over the proposed site, the assessment should state how this will be managed, and what the impact on neighbouring sites will be as part of a cumulative assessment. Measures identified to mitigate effects shall be installed and maintained at the developers' own expense, or put into a management company (with associated evidence that the management company will operate in perpetuity) to ensure their long term retention, maintenance, and management. Other flood resilient and/or resistant measures may also be required, and their provision will be informed by the findings of a submitted Flood Risk Assessment (FRA).		
Policy EN 29: Sustainable Drainage	All development applications should include adequate drainage provision. This will ensure that surface water is appropriately controlled within the development site, flood risk is managed on-site and off-site, and any existing flood risk in the locality is not exacerbated. Within major development, SuDS that deliver other benefits, such as biodiversity, water quality improvements, amenity, and landscape and recreational open space, must be included, except where they are demonstrated to be inappropriate. All developments should aim to deliver a net reduction in run off, exceeding greenfield run off rates (mimic natural flows and drainage pathways), and ensure that surface water runoff is managed as close to its source as possible using the following hierarchy: 1. Discharge into the ground; 2. Discharge to a surface water body; 3. Discharge to a surface water sewer, highway drain, or other drainage system. All drainage schemes must: i. Manage all sources of surface water, including exceedance flows and	There are no LSEs of this policy alone. This policy details the provision for sustainable drainage in development applications. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	surface flows from off site; and ii. Provide for emergency ingress and egress; and iii. Ensure adequate drainage connectivity. It will not be acceptable for surface water runoff to enter the foul water system. SuDS or other appropriate measures should: a. Maintain public safety; and b. Provide sufficient attenuation to surface water flows as appropriate; and c. Ensure that there is adequate treatment of surface water flows, such that there is no diminution in quality of any receiving watercourse; and d. Ensure protection of ground water; and e. Provide or enhance wetland habitat and biodiversity where possible; and f. Use surface water features first (underground storage crates should only be used in exceptional circumstances where other measures are not possible). On sites considered to constitute major and strategic development, it should be shown how this infrastructure will be delivered over the different building phases to ensure that schemes are delivered as envisaged, and that ongoing and future flood risk is managed. Approval of the design and long term management and maintenance of SuDS will be required prior to the development commencing.		
Policy EN 30: Noise	Residential and other noise sensitive development will only be permitted where it can be demonstrated that users and occupiers of the development will not be exposed to unacceptable noise disturbance from existing or proposed uses, as set out in the Council's adopted Noise and Vibration Supplementary Planning Document. Developers of proposals on sites affected by noise and vibration issues must therefore refer to, and follow, the requirements of the Council's latest adopted	There are no LSEs of this policy alone. This policy outlines the aim of reducing noise from development to a minimum. It neither provides the quantum or	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Noise and Vibration Supplementary Planning Document prior to submitting a planning application. Noise-generating development will only be permitted where it can be demonstrated that nearby noise sensitive uses (existing or planned, either through an extant planning permission or allocation in the Local Plan) will not be exposed to noise impact that will adversely affect the amenity of existing or future users. Where appropriate, proposals will be required to mitigate noise impacts through careful planning, layout, and design. In assessing mitigation proposals, account will be taken of: 1. The location, layout, and design of the proposed development; and 2. Existing levels of background noise; and 3. Measures to reduce or contain generated noise; and 4. Hours of operation and servicing. Where noise sensitive uses are likely to be exposed to significant or unacceptable noise disturbance, the Local Planning Authority will require that applications are supported by a Noise Impact Assessment undertaken by a suitably qualified competent person (as defined by the NPPF), in accordance with the Local Planning Authority's latest adopted Noise and Vibration Supplementary Planning Document. Development that would expose noise sensitive uses to unacceptable noise levels will not be permitted. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') will be required to provide suitable mitigation before the development has been completed. Planning conditions and/or other means, such as financial contributions from Section 106 agreements, will be used to ensure that mitigation measures are satisfactorily undertaken.	location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	

Policy EN 31: Land contamination	Development proposals on a site that is known, or suspected, to be affected by contamination will only be permitted where the Local Planning Authority is satisfied that all works, including investigation of the nature of any contamination, can be undertaken without escape of contaminants that could cause unacceptable risk to health or to the environment, as set out in the Council's latest adopted Contaminated Land Supplementary Planning Document. Developers of proposals on sites affected by land contamination must therefore refer to, and follow, the requirements of the Council's latest adopted Contaminated Land Supplementary Planning Document prior to submitting a planning application. A Risk Assessment (undertaken by a suitably qualified competent person) which includes a desk study, site walkover report, and preliminary risk assessment, must be provided at the earliest stage (i.e. pre-application, or as part of the submitted application) detailing the methodology by which risks will be addressed and ensuring the treatment and/or removal of all contaminants prior to the commencement of development, or as agreed by the Local Planning Authority where phased development is proposed. In accordance with the Council's latest adopted Contaminated Land Supplementary Planning Document, development will not be permitted unless practicable and effective measures are taken to avoid: 1. Exposing the future occupiers and users of the development to unacceptable risk; and 2. Threatening the structural integrity of any existing building or structure built on, or adjoining, the site; and 3. Causing the contamination of any water course, water body, or aquifer; and 4. Causing the contamination of adjoining land, or allowing such contamination to continue; and 5. Damaging or putting at unacceptable risk the quality of the natural environment.	There are no LSEs of this policy alone. This policy contains the provision of reducing land contamination. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Planning conditions and/or other means, such as financial contributions from Section 106 agreements, will be used to ensure that such measures are undertaken.		
Policy EN 32: Minerals and Waste	Development will be assessed against the relevant policies in the adopted Kent Minerals and Waste Local Plan and with the relevant policies of any additional minerals and waste development plan documents that are adopted at the time the planning application is determined.	There are no LSEs of this policy alone. This policy identifies the minerals and waste strategy for TWB, which will assess all development against the adopted Kent Minerals and Waste Local Plan. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Housing Policies			
Policy H 1: Implementation of planning permission for new residential dwellings	Unless there are exceptional circumstances due to specific site or development constraints, a condition will be attached to any grant of planning permission for new major residential development (including change of use) requiring one or the other of the following conditions: 1. That the permission be implemented within two years from the date of decision; or 2. That groundworks and the construction of the ground floor base of at least two buildings be completed within three years of the permission.	There are no LSEs of this policy alone. This policy addresses the implementation of planning permissions for new residential dwellings. It neither provides the quantum or location of new development.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

		Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy H 2: Multi-developer delivery and piecemeal development of larger sites	Multi-developer delivery on larger major and strategic sites will be welcomed. However, proposals for 'piecemeal' development (i.e. development of individual parcels of a larger site, whether it is allocated or not) will only be permitted if: 1. The permission does not jeopardise securing the full requirements of other policies in this Local Plan, including in relation to on-site affordable housing provision (see Policy H5: Affordable Housing below), for the wider site or allocation. If necessary, a legal agreement will be required to ensure that such policy requirements will be met; and 2. It is demonstrated that this development will not prejudice the comprehensive development of the wider site; for example, in relation to access, overlooking of other parts of the site, etc. If necessary, indicative plans or information in a design and access statement should be provided as part of any application (see Policy EN1: Design and other development criteria).	There are no LSEs of this policy alone. This policy details that multi-developer delivery on major sites will be welcomed. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy H 3: Housing Mix	Proposals for residential development should include a mix that would enable the balanced development of the area, unless alternative mix and size requirements are set out in a Local Plan site allocation or in a 'made' neighbourhood plan. The mix should be informed by analysis of the area within which the site is located, which should be provided in the design and access statement. The number of bedrooms proposed in the affordable housing element shall reflect the requirements of the Housing Needs Register for that area.	There are no LSEs of this policy alone. This policy highlights that housing proposals should include a mix of dwellings. It neither provides the quantum or location of new development. Therefore, there are no	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

		impact pathways present and this policy can thus be screened out.	
Policy H 4: Housing Density	Development shall be delivered to an appropriately high density having regard to its context, including landscape, topography, surrounding built form, and any other relevant factors. Planning applications will be refused where development is found not to make efficient use of land.	There are no LSEs of this policy alone. This policy outlines the density of new housing developments. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.
Policy H 5: Affordable Housing	**Overall approach** 1. Sites comprising predominantly greenfield land (i.e. non previously developed land) delivering a net increase of more than nine dwellings will be expected to include a minimum of 40% of the gross number of residential units as on-site affordable housing provision. Where this percentage is not a whole number, it will be rounded up to the next whole number; 2. Sites comprising predominantly brownfield land (i.e. previously developed land) delivering a net increase of more than nine dwellings will be expected to include a minimum of 30% of the gross number of residential units as on-site affordable housing provision. Where this percentage is not a whole number, it will be rounded up to the next whole number; 3. Timing of affordable on-site housing provision: a minimum of 50% of the affordable housing to be delivered on site will be expected to be completed and transferred to a registered provider prior to occupation of a maximum of	There are no LSEs of this policy alone. This policy sets out TWB's goals regarding affordable housing. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	50% of the open market units to be provided on site; 4. Sites delivering a net increase of one to nine dwellings will be expected to provide a financial contribution towards the provision of off-site affordable housing (land and build costs) based on 20% of the gross number of residential units to be provided (further work will take place on the scale of financial contributions, which will inform the next, pre-submission version of the Local Plan); 5. Where a financial contribution for off-site provision of affordable housing is payable, this shall be payable upon commencement of the development. **Local Connection** Affordable housing will be provided on the basis of a 'local connection cascade'. The details of this cascade will be determined on a case by case basis, but will follow the general approach of prioritising households with an established local connection in housing need to (a) the settlement (firstly), and (b) the parish (secondly) through residence or place of work, then households from surrounding parishes in the borough, and then wider. This will be secured by a Section 106 agreement. **Tenure** The general approach to tenure provision of on-site affordable housing should be that 60% is provided as social rent and 40% as intermediate tenures. There may be instances, however, where local housing needs surveys (for example, those undertaken in support of a neighbourhood plan) indicate that a proportion should be provided as affordable rented accommodation. Regard		

	will be given to such surveys when determining the appropriate tenure provision on site. **Exceptional Circumstances** There may be exceptional circumstances where the provision of on-site affordable housing is not viable. The Council considers that the following may represent exceptional circumstances, but in each case these circumstances would need to be fully demonstrated to warrant a departure from compliance with this policy: 1. The developer has provided written evidence that no Registered Provider will take the units. This may be because: a. there are too few units for a registered provider to take; and/or b. the affordable units are located within a single block where it is difficult for a registered provider to manage the homes. In this instance, the developer must demonstrate to the satisfaction of the Council that there are no means for provision of another block on the site, or provide a second entrance for the affordable housing; and/or 2. It is demonstrated that there is no realistic prospect of providing affordable housing by another means, other than through a Registered Provider; and/or 3. In relation to the tenure mix, where it can be demonstrated that the values of shared ownership or intermediate rented units would be too high in that particular locality due to exceptionally high sales and/or rental values; and/or 4. There are specific site allocation policies in this Local Plan, or a made neighbourhood plan, which indicate that it is preferable for a greater proportion of affordable housing to be provided on an alternative site (with a consequent reduction in on-site provision at the original site); and/or 5. It can be demonstrated that the provision of the policy-compliant level of affordable housing would make the development unviable;		

	6. The onus will be on the applicant to demonstrate robustly the reasons why the policy requirements cannot be achieved, and to provide a full viability assessment to support their proposals. As part of this it will need to be shown that the correct land value was paid, as exceptional and abnormal costs should, in the first instance, be paid for through a reduced land value. The viability assessment must be provided as part of the application when originally submitted, will be made publicly available, and will be subject to review by independent viability consultants. The applicant is expected to meet the costs of this review. Where applications are made on this basis, any permission granted will be for a maximum of two years; 7. Where the Council considers that full provision of on-site affordable housing cannot be delivered, alternative delivery will be considered in the following order: a. The full affordable housing provision to be provided by the applicant on an alternative site agreed with the Council in (sequentially) (i) the settlement and (ii) the parish of the application site; and/or b. A reduced level of affordable provision on the application site; and/or c. A variation in the tenure of the affordable housing; and/or d. The applicant to make land available elsewhere in (sequentially) (i) the settlement, (ii) the parish and (iii) the borough to provide the affordable housing for a registered provider; and/or e. A financial contribution in lieu of on-site affordable housing: • The Section 106 agreement for this will stipulate that the commuted sums must be spent on affordable housing in the ward or parish in which it was collected; and • Where no project will come forward within the timescales outlined in the Section 106 agreement (normally five years), then opportunities in the adjoining ward or parish will be considered, followed by those in the borough as a whole. • **Design and layout approach to affordable housing**		

	The Council requires affordable housing to be designed and built as 'tenure blind'. Affordable housing must be well integrated into the development: integration, together with the application of high quality design, use of good quality materials, and landscaping, should mean that the affordable housing is not visually distinguishable from the market housing (see Policy EN 1: Design and other development management criteria). Homes may be 'clustered' to assist with management, but such clusters must be spread evenly across the development. In the case of developments that are flats and, where management and service charge arrangements are a practical consideration, the affordable units may be clustered together; for example, by block or staircase. Affordable housing should be sited so that it has equitable access to existing and new amenities in the locality, including recreation, leisure, open spaces, and community facilities. **Building standards for affordable housing** All affordable housing should meet, as a minimum, the Building Regulation Standard Part M4(2). Where affordable housing is designed for households with a disability, the homes should meet the higher M4(3) standards, or equivalent standards, such as 'Habinteg Design'.		
Policy H 6: Estate Regeneration	Proposals for estate regeneration will be supported where the following applies: Any net loss in affordable housing must be justified by the delivery of significant improvements to the quality, design, and form of dwellings, and other public benefits.	There are no LSEs of this policy alone. This policy contains TWB's approach to estate regeneration. It neither provides the quantum or location of new	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

		development. Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy H 7: Rural Exception Sites	Where no alternative site is available to meet local housing needs inside the Limits to Built Development, as defined on the draft Policies Map, the Council will permit development for rural exception housing outside the Limits to Built Development, provided all of the following criteria are satisfied: 1. The site would be well related in scale and location to the settlement and its services. If the site is located further away from the main settlement, the developer will need to provide evidence that this is the closest available site, and how pedestrian links will be provided to the settlement; and 2. The development would be of a suitable size and character in terms of layout, materials, and landscaping in relation to the settlement (and accords with other criteria set out in Policy EN1: Design and other development management criteria); and 3. The need for a local needs housing development can be demonstrated either through a parish or ward survey, drawing on information from the Housing Register and /or other local evidence. Information that is based on a wider geographic area will not be accepted as supporting evidence; and 4. The local needs for affordable would not otherwise be met; and 5. The development would not normally contain any open market housing. In exceptional circumstances, and in accordance with the NPPF, the inclusion within the scheme of a small proportion of open market housing may be considered acceptable in order to cross-subsidise the delivery of the affordable housing. Such proposals would require the submission of a full viability assessment to demonstrate that the market housing would only be	There are no LSEs of this policy alone. This policy provides for rural exception sites to be developed outside the Limits to Built Environment. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	built for enabling purposes. Enabling purposes would be strictly defined as allowing the affordable units to be built, with no extra profit being generated. Eligibility for rural exception housing will be determined through the Council's Housing Allocations Policy and through strict local connection criteria through residence, close family connection, and/or permanent employment in the parish or town. To ensure that the rural exception sites only provide housing for people with a local connection, eligible people will be those who: Live in the parish or town in accommodation that is unsuited to their circumstances through physical, medical, or social reasons and which is incapable of being improved or rendered suitable, including through repairs, adaptations, etc. at a reasonable cost, and satisfies one of the residential qualifications below: a. Has lived in the parish or town continuously for the last three years; or b. Has previously lived in the parish or town for a total of five years out of the last 10 years; or c. Has immediate family who have lived continuously in the parish or town for the last three years; or for a total of five years out of the last 10 years; d. Be in, or about to take up, permanent employment employment in the parish or town; or e. Provides an important service that requires residence in the parish or town.		
Policy H 8: Vacant Building Credit	Vacant Building Credit will only be applied in exceptional circumstances. When it is applied, the building should: 1. Not be in use at the time the planning application is submitted; and 2. Not be covered by an extant or planning permission, or is not subject to a planning permission that expired within the previous six months; and 3. Not be safeguarded for an alternative land use, or have been made vacant for the sole purpose of redevelopment.	There are no LSEs of this policy alone. This policy relates to vacant building credit. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	The building(s) will need to have been vacant, continuously, for at least five years prior to the planning application being submitted. In addition, the building shall also have been actively marketed for at least two continuous years out of the previous five years (to submission of the planning application) at realistic prices, both of which shall be evidenced and supported within the planning application. The Council may require the review of submitted information by an independent consultant; it is expected that the applicant will cover the cost of this.	and this policy can thus be screened out.	
Policy H 9: Housing for Older People	**Location of provision for housing for older people** Housing suitable for meeting the varying needs of older people should be integrated with all major housing schemes, particularly those that are close to local services, notably shops for day-to-day purchases, healthcare and social/community facilities, and/or regular bus routes. Depending on the scale and location of development, this may be achieved by housing that meets the higher accessibility (M4(2) standard, bungalows and sheltered or other age-specific schemes. In addition, large schemes with good access to services may be required to set land aside for residential/nursing care (C2) purposes. Independent nursing and residential care homes will be supported in accessible locations, subject to other policies on the Plan. The extension of existing nursing and care homes in rural areas will be assessed on their own merits, taking account of all relevant Local Plan policies and other material considerations. **Accessibility and design** In order to provide for inclusive communities, developers should provide for a proportion of homes to be accessible and adaptable for future residents. As a minimum, all affordable housing should be adaptable for the future and meet the requirements of Building Regulation Part 4 M(2), as set out in Policy H5: Affordable Housing.	There are no LSEs of this policy alone. This policy outlines the provision of housing for older people in TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Where a need for fully wheelchair adaptable housing has been identified, in the parish or ward, at least 5% of housing units on schemes of 20+ dwellings should meet wheelchair housing design standards, with reference to Habinteg guidance **(67)**. Also see Policy H 5: Affordable Housing for more information. The use of appropriate design criteria is encouraged, in particular The Housing our Ageing Population Panel for Innovation (HAPPI) **(68)** key criteria, notably in relation to: 1. Space standards; 2. Daylight in the home and in shared spaces; 3. Balconies and outdoor space; 4. Adaptability and 'care ready' design; 5. Positive use of circulation space; 6. Shared facilities and 'hubs'; 7. Plants, trees, and the natural environment; 8. Energy efficiency and sustainable design; 9. Storage for belongings and bicycles; 10. External shared surfaces and 'home zones'; and 11. Full compliance with the relevant building regulations. **Amenity space and parking provision** Older persons' housing should incorporate amenity, or garden, space appropriate to the nature of the scheme. Housing schemes for older people will not be required to make contributions to provide for children's play space. Sheltered housing schemes (including Extra Care or equivalent) that make an appropriate contribution to communal amenity space should not be required to make provision for open space for youth or adult use. On-site parking will be required, for both residents and visitors, and should not diminish the character of the street scene. Where appropriate, pick up and		

	drop off facilities for taxis (with suitable kerbs), minibuses, and ambulances will be required, as well as suitable on-site storage and charging facilities for mobility scooters. The level of on-site parking is set out in the Section 'Vehicle Parking Standards for Individual Land Use Classes' (Land Use Class C2: Residential Institutions) in the Kent County Council Supplementary Planning Guidance 4: Kent Vehicle Parking Standards 2006 and Policy TP 3: Parking Standards, of this Plan) or any subsequent updated guidance that the Council adopts for development management purposes. **Affordable housing** All Class C3 older persons' accommodation, Self Contained Accommodation (including age restricted), Sheltered Accommodation, Extra Care Accommodation, Assisted Living, Close Care, and Continuing Care should provide affordable housing, in accordance with the general affordable housing policy. Where a development includes a mixture of Class C2 and C3 units, regard will be given to the development as a whole, and contributions will be sought from the Class C3 provision where applicable. **For C2 housing schemes to be exempt from an affordable housing requirement, due to the level of care being provided to the residents, then, as a minimum, daily assistance should consist of help with personal care, such as washing, self care, and preparing food, and evidence provided within the planning application submission.**		
Policy H 10: Rural Workers' Dwellings	Outside the Limits to Built Development as defined on the draft Policies Map, proposals for the erection of a rural worker's dwelling will not be permitted unless all of the following criteria are satisfied: 1. A functional test will be necessary to establish whether it is essential for the proper functioning of the enterprise for a full time worker, or one who is primarily employed in the business, to reside on the site to provide essential or emergency on-site care for agricultural, or business, or forestry purposes that could not be carried out satisfactorily by the worker living off-site; even	There are no LSEs of this policy alone. This policy states that rural workers' dwellings shall only be permitted in exceptional circumstances. It neither provides the quantum or	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	with the use of up to date technology; and 2. No existing accommodation is suitable, or potentially suitable for the purpose of a rural worker, or there is no suitable building that could be converted to achieve the functional need; and 3. A dwelling has not been sold off separately from the site or holding during the previous 10 years, nor has the site formed part of a larger unit previously served by such a dwelling at any time during this period; and 4. The size and scale of the new dwelling would be appropriate for the purpose for which it would be required in relation to the income the unit can sustain and the needs of the business enterprise, and would provide reasonable family accommodation. An independent report will be required, showing the need for development and financial soundness of the business. This should cover existing and future requirements, and the number of workers that will be involved. It is expected that this report, and any assessment required to be undertaken by the Council, will be funded by the applicant; and 5. If the unit and business concerned has not been established for three years, the business will need to show it will be financially sound. If the unit and the business concerned has been established for at least three years, it should have been profitable for at least one of them, be currently financially sound, and have a clear prospect of remaining so; and 6. The location, scale, and design of the dwelling should not significantly harm the landscape and countryside character. See Policies EN 1: Design and other development management criteria, and Landscape Policies EN 20 and EN 21 for more detail; 7. In all cases, the granting of planning permission will be subject to conditions or legal agreement restricting the occupancy of the dwelling to rural workers, and permitted development rights will be removed.	location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	

	Note: Temporary permission If a new dwelling is required, it should be provided by a caravan in the first three years. There should be a firm intention and ability to continue with the business. Temporary permission will not be granted in locations that would not permit a permanent dwelling. When temporary permission is granted, it should not be assumed that permanent permission will automatically follow, as functional tests on the need for, and the ability to sustain, the residence will need to be reapplied. In all cases, the granting of planning permission will be subject to conditions or legal agreement restricting the occupancy of the dwelling to rural workers, and permitted development rights will be removed. Where the Local Planning Authority is concerned about misuse, the history of the holding will be investigated.		
Policy H 11: Self Build and Custom Housebuilding	Where a need has been identified for self-build and custom housebuilding plots in the parish or settlement by the Self-Build and Custom Housebuilding Register, plots for such development will need to be provided: 1. On sites proposing to deliver (or capable of delivering) 100 or more residential units, self-build or custom housebuilding plots will be required, comprising of at least 5% of the total number of units being proposed. The resulting number of self build units required to be provided will be required to be rounded up to the nearest whole number. This is in addition to the level of affordable housing required by Policy H 5: Affordable Housing. Once planning permission has been granted, the self-build and custom housebuilding plots will need to be marketed through relevant trade organisations for at least a year. Evidence of this marketing must be submitted. If a plot/s has been marketed for a year, and a buyer has not been found, the	There are no LSEs of this policy alone. This policy neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	plot should be offered to the Council/Registered Provider, to increase the chance of plots being developed. If at the end of this process, there has not been any interest in the plot/s, then the owner of the plot can build for sale on the open market. The marketing of plot/s, including at what point in the site's development they should begin to be marketed, may be secured through a Section 106 agreement or condition. Any residential proposals being brought forward will need to conform to other relevant policies in the Local Plan, including Policies EN 1: Design and other development management criteria and EN 2: Sustainable Design and Construction.		
Policy H 12: Build to Rent	Proposals for Build to Rent developments will need to meet all the following criteria: 1. All units should be self-contained; and 2. The tenancy will need to be at least three years long by default, unless the tenant specifically requests it to be shorter. A break clause will be in each tenancy agreement, where the tenant can end the tenancy with a month's notice after the first six months. If the rent increases for any reason during the fixed period of the tenancy, the increase will need to be based on a formula (for example, linked to the Consumer Price Index) that has been made clear to the tenant before the contract is signed. Any application for Build to Rent should include details of the proposed tenancy agreement; and 3. The Council's requirement for the provision of affordable housing as part of the Build to Rent scheme will be expected to provide 20% affordable housing to be provided as affordable rented units only; and 4. A draft Section 106 agreement should be provided at the application stage; and	There are no LSEs of this policy alone. This policy provides detail about build to rent properties. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	5. Policy H 3: Housing Mix will be applied when assessing proposals for Build to Rent.		
Policy H 13: Gypsies and Travellers	Proposals for the establishment of gypsy and traveller sites will be permitted provided all of the following criteria are satisfied: 1. The site forms part of, or is located adjacent to, an existing lawful permanent gypsy and traveller site, or is allocated within a policy in the Local Plan, or is provided as part of a wider residential or mixed use scheme; and 2. The density of pitch provision within the application site (or if relevant, adjacent site) is maximised, having regard to the minimum separation distances between mobile homes/caravans/etc, as required by any relevant legislation or guidance; and 3. The proposal would not cause significant visual harm to the landscape or streetscene generally, and must not be located within an exposed position in the landscape. It must be well-screened by existing or additional native vegetation and physically contained by landscaping. This screening should be maintained permanently, and while additional planting could supplement existing landscaping, it should not be used as the only way the impact of new development is mitigated. High fences will not be acceptable for the purposes of screening; and 4. Any accommodation provided on the site must be consistent with a nomadic lifestyle; and 5. Proposed development, when considered together with the cumulative impact of existing gypsy and traveller sites within the parish, must not visually dominate its surroundings; and 6. Foul drainage to a public sewer should be provided where possible. Where it is not, evidence will need to be provided showing that suitable alternative facilities can be provided; and	There are no LSEs of this policy alone. This policy provides details regarding gypsy and traveler sites. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	7. Parking provision must be made in accordance with the parking standards as set out in Policy TP 3: Parking Standards; and 8. There is adequate provision for storage and maintenance of equipment, where required for travelling showpeople. For intensification and/or expansion of sites to provide additional pitches, or for the provision of new sites, previously developed land (excluding curtilages of existing dwellings) and agricultural/rural sites with existing areas of hard standing will be preferred. Proposals that would result in a reduction of the number of pitches within the borough will be refused unless a suitable replacement is found, or the need no longer exists. Evidence will need to be provided if the need is disputed as part of the planning application submission. In exceptional circumstances, proposals for the development of a new gypsy and traveller site will need to demonstrate that all of the above criteria are met.		
Policy H 14: Replacement dwellings outside the Limits to Built Development	Outside the Limits to Built Development, as defined on the draft Policies Map, proposals for replacement dwellings in the same residential curtilage as an existing dwelling, will be required to satisfy all of the following criteria: 1. The existing dwelling must benefit from a lawful residential use (this does not include any form of temporary planning permission, a residential use that has been abandoned or has any planning conditions relating to occupancy restrictions). In addition, mobile homes and other forms of temporary accommodation will not be classed as an existing residential dwelling for the purposes of this policy; and 2. Demolition of all or part of the existing dwelling must be justified on the basis that the existing structure is rendered unsafe; for example, unsound construction, subsidence, or is inherently constructed to a poor quality/constructed of poor materials and it would not be viable to rectify these	There are no LSEs of this policy alone. This policy details the dimension / measurement of replacement dwellings in TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	as part of a modernisation or refurbishment project. Demolition may also be justified where a building is poorly sited, such as immediately adjacent to a highway, or is considered to be unduly obtrusive by virtue of its design and/or use of materials; and 3. The existing dwelling is not a heritage asset. Where a dwelling is to be replaced: a. The scale, form, external appearance, height, and massing of the replacement dwelling and any associated development and works, shall be no more visually obtrusive in the landscape than the original dwelling (the building as it existed on 1 July 1948, or, in the case of a building constructed after 1 July 1948, as it was first built) and shall be compatible with its rural location in terms of architectural and visual amenity, landscape setting, and any existing surrounding development; and b. Any proposed increase in volume, including any previous additions to the property, will not result in an increase of more than 50% of the gross volume of the original dwelling (the gross volume will be ascertained by external measurements taken above ground level and include the volume of the roof), subject to a maximum of 250 cubic metres (gross). All other existing detached buildings, including garages, will be excluded from the calculation of the volume of the original dwelling. If the existing dwelling has already been extended by 50% (or more) above the original, then no further increase in volume will be permitted for the replacement dwelling; and c. The replacement dwelling shall be located on the footprint of, or as close as practically possible to, the existing dwelling, unless an alternative location would result in clear landscape, access, or local amenity benefits. In the event that the dwelling is relocated, the removal of the existing dwelling upon completion of the new dwelling will be secured by way of planning condition or legal agreement; and		

	d. The proposal shall not cause significant harm to the amenities of occupiers of neighbouring properties and uses in terms of loss of privacy immediate outlook, daylight, and sunlight. In order to protect the character of the dwelling and the landscape, and particularly in sensitive locations, such as the Area of Outstanding Natural Beauty and Green Belt, permitted development rights for any further extensions, alterations, outbuildings, hardstanding, and boundary treatments may be removed and external lighting strictly controlled.		
Policy H 15: Residential extensions, alterations, outbuildings, and annexes inside the Limits to Built Development	Extensions, alterations, outbuildings, and annexes to existing dwellings inside the Limits to Built Development, as defined on the draft Policies Map, will only be permitted where: 1. They are compatible with the character and appearance of the main dwelling, the rhythm and character of the streetscene, and the visual amenities of the wider locality in terms of design, siting, layout, size, bulk, mass, height, roof form, external finishing materials, and detailing; and 2. They do not significantly harm the amenities of neighbouring properties in terms of direct overlooking to main room windows and/or private amenity areas resulting in loss of privacy; and 3. They do not significantly harm the amenities of neighbouring properties in terms of loss of immediate outlook/dominance, resulting in an overbearing impact, loss of daylight/sunlight, and overshadowing of habitable (as defined above) room windows and private amenity areas; and 4. They would retain usable and reasonable external space for garden/amenity, refuse, recycling, and cycle storage, and the parking and turning of vehicles to meet the continuing needs of the dwelling. In all cases, the proposal will be ancillary to the main dwelling in terms of use and scale, and shall not be used for separate occupation or be capable of being sold separately. Where appropriate, these restrictions will be secured by	There are no LSEs of this policy alone. This policy addresses changes to existing housing in TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	way of planning condition or legal agreement.		
Policy H 16: Residential extensions, alterations, outbuildings, and annexes in the Green Belt and outside the Limits to Built Development	Residential extensions in the Green Belt and outside the Limits to Built Development, as defined on the draft Policies Map, shall only be permitted where: 1. The scale, form, and massing of the proposal would not result in a disproportionate addition over and above the size of the original dwelling (the building as it existed on 1 July 1948, or, in the case of a building constructed after 1 July 1948, as it was first built) and would not detract from its rural setting and the visual amenities of the surrounding countryside; and 2. Proposed extensions, including any previous additions to the property, should not result in an increase of more than 50% of the gross volume (based on external measurements taken above ground level and including the volume of the roof) of the original dwelling, subject to a maximum of 250 cubic metres (gross). All other existing detached buildings, including garages, will be excluded from the calculation of the volume of the original dwelling. In the case of a dwelling already having been extended by 50% (or more) above the original, then no further increase in volume will be permitted and permitted development rights for further extensions/structures may be removed; and For both extensions and any other structures/outbuildings: 1. The proposal should appear subservient and be ancillary to the main dwelling in form, use, and scale, designed to be in keeping with its character and external appearance and sited so as not to appear visually obtrusive in the surrounding landscape; and 2. The proposal would not lend itself to future sub-division to form a separate dwelling; and 3. The proposal should not significantly harm the amenities of neighbouring properties as set out in criteria 2 and 3 of Policy H15 above.	There are no LSEs of this policy alone. This policy relates to design changes of existing residential dwellings outside the Limits to Built Development. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Proposals should satisfy all the criteria requirements set out in Policy H15 above.		
Policy H 17: Extensions to residential curtilages (domestic gardens) outside the Limits to Built Development	Outside the Limits to Built Development, as defined on the draft Policies Map, extensions to residential curtilages will not be permitted unless it can be shown that all of the following criteria can be met: 1. It is reasonably necessary for the safe access and proper management of a dwelling, such as the provision of sufficient outside space for the servicing and maintenance of the property; and it is demonstrated in a design and access statement that all other alternative options to address a particular issue have been investigated, with the reasoning for discounting those set out; and 2. The proposed means of enclosure and any gates would be sympathetic to the character of the adjoining countryside; and 3. It would be an appropriate size in the context of the site and would not result in an unacceptable impact on the landscape character of the area; and 4. It would not result in unacceptable harm to the amenity of users of publicly accessible open spaces and Public Rights of Way in the surrounding landscape; and 5. The proposal would not adversely affect the proper functioning or use of adjoining agricultural land. In exceptional circumstances, extensions to residential curtilages may be permitted where, as a direct result, there would be clear landscape and/or biodiversity benefits through the realignment of the boundary, restoration of landscape features, or the removal of elements that detract from the landscape. In order to protect landscape character, and particularly in sensitive locations, such as the Area of Outstanding Natural Beauty and Green Belt, permitted	There are no LSEs of this policy alone. This policy relates to conversion of domestic gardens outside the established urban areas. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact pathways present and this policy can thus be screened out ‘in-combination’.

<table>
<tr><td></td><td>development rights for extensions to the dwelling, outbuildings, hardstandings, and boundary treatments may be removed and external lighting strictly controlled.</td><td></td><td></td></tr>
<tr><td colspan="2">Economic Policies</td><td></td><td></td></tr>
<tr><td>Policy ED 1: The Key Employment Areas</td><td>The Key Employment Areas, as defined on the draft Policies Map, are defined for the provision of employment uses to serve the borough over the plan period. The retention of existing, and proposals for new, employment provision, to include the following uses, will be acceptable within these defined areas.

<table><tr><th>Defined Key Employment Area</th><th>Mix of uses appropriate</th></tr><tr><td>Royal Tunbridge Wells Town Centre</td><td>Retail (A1), Financial and Professional services (A2), Food and drink (A3), Drinking establishments (A4), Hot food takeaways (A5), Business (B1), Hotels (C1), Dwelling houses, (C3), Residential Institutions (C2), Non Residential Institutions (D1), Assembly and Leisure (D2) as well as Education and Health and other sui generis uses</td></tr><tr><td>Royal Tunbridge Wells North Farm/Longfield Road area</td><td>Business (B1), General Industry (B2), Storage and Distribution (B8) Leisure (D2) and limited</td></tr></table></td><td>Likely Significant Effects Presents

This policy identifies the location of new employment areas to be provided during the Plan period of 2013-2036.

Potential impact pathways are present:
• Urbanisation
• Atmospheric Pollution</td><td>Likely Significant Effects Presents

This policy identifies the location of key new employment areas to be provided during the Plan period of 2013-2036.

Potential impact pathways are present:
• Urbanisation
• Atmospheric Pollution</td></tr>
</table>

		retail (A1) (in the form of appropriate extensions to the existing A1 buildings) and Food and Drink (A3) provision where part of a mix of uses or as part of an extension of existing provision		
	Southborough High Brooms Industrial Area	Business (B1), Storage and Distribution (B8) and other leisure (D1) uses of an appropriate type and scale		
	Paddock Wood Eldon Way and West of Maidstone Road	Business (B1), General Industry (B2), Storage and Distribution (B8)		
	Paddock Wood Transfesa Road East and West	Business (B1), General Industry (B2), Storage and Distribution (B8)		
	Gill's Green Business Park	Business (B1), General Industry (B2), Storage and Distribution (B8)		
	Capel Brook Farm	Business (B1), General Industry (B2), Storage and Distribution (B8)		
	Proposals for the retention of existing floorspace and the encouragement of new floorspace in the Key Employment Areas on allocated and non-allocated			

	and vacant sites, and through the intensification or redevelopment of existing sites, will be supported in principle.		
Policy ED 2: Retention of existing employment sites and buildings	Existing employment sites and buildings will be retained in their existing use or an alternative employment generating use to support the vibrant and balanced economy of the borough, taking the following into account: 1. If they are well located to a main road and public transport networks; and 2. They provide, or are physically and viably capable of providing, through redevelopment, good quality modern accommodation attractive to the market; and 3. Are capable of meeting a range of employment uses to support the local economy. Applicants seeking to redevelop/convert existing employment buildings and sites must demonstrate the following: a. Provide robust evidence to show that the site has been proactively marketed, at the appropriate price, and using relevant publications, for the existing use or other potentially suitable employment generating uses; and b. Provide evidence that there is no prospect of the existing buildings, or the partial or comprehensive redevelopment of the existing buildings, continuing for the current use; and c. Marketing must be for a period of at least two years at a time when the site is available, or will be available shortly, with an appropriate agent; and d. Where it has been demonstrated to the Council's satisfaction, through an independent assessment, that the current use is no longer viable and that there is no reasonable prospect of continued use or take up of other employment generating uses during the plan period, proposals for redevelopment must consider alternative uses in the following order: i. Other business uses; ii. All other non-residential, employment generating uses;	There are no LSEs of this policy alone. This economic policy contains the provision of retaining key employment areas in TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	iii. Residential employment generating uses (C1, C2); iv. A mixture of residential and employment generating uses, including 'live/work' units; v. Wholly residential schemes (C3). Redevelopment of employment buildings and sites for mixed use may be permitted where such development: 1. Would facilitate the regeneration of the site to more effectively meet the needs of modern business; and 2. Where the employment capacity of the site, represented by commercial floorspace, is maintained; and 3. Where a mixed use development would represent a sustainable approach consistent with the general distribution of development. The Council may require the review of submitted information by an independent consultant: it is expected that the applicant will cover the cost of this.		
Policy ED 3: Digital communications and fibre to the premises (FTTP)	Proposals to improve the digital communications network in Tunbridge Wells borough, including through the provision of mobile data networks (such as 5G mobile data), will be supported, subject to compliance with relevant policies in this Plan, and with national policy. All residential and employment developments within the Limits to Built Development of Royal Tunbridge Wells, Southborough, Paddock Wood, Hawkhurst, Cranbrook, Pembury, and Tudeley Village, including site allocations promoted in this Plan, will enable FTTP. In other areas, all residential developments over five dwellings and employment proposals of 500sqm or more (including through conversion) will enable FTTP.	There are no LSEs of this policy alone. This economic policy contains the provision of digital communications and fibre internet to TWB homes. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	For schemes under these thresholds, the Council's expectation is that provision for FTTP will be achieved, where practical. For sites of less than five dwellings or 500sqm of employment space, or where it can be demonstrated that FTTP is not practical due to special circumstances, (such as issues of viability, the inability to provide the appropriate physical trench, and proximity to the nearest breakout point on the fibre network), then other non-Next Generation Access technologies, including wired and wireless infrastructure, providing all-inclusive internet access speeds in excess of 24Mbps, should be delivered wherever practical.	be screened out.	
Policy ED 4: Rural Diversification	Development that forms part of a farm diversification scheme, or otherwise helps maintain the viability of rural businesses engaged in sustainable land management, will be permitted where the following criteria are met: 1. A diversification/farm business plan is submitted, which demonstrates that the proposed development does not cause severance or disruption to the agricultural holding and would not necessitate the need for additional buildings to continue farm operations as a result of the reuse of existing buildings for other uses; and 2. The proposed development will need to demonstrate that the proposals will stimulate new economic activity with a use appropriate to its rural location; and 3. The development reuses or replaces existing buildings where feasible. Where this is not feasible, the development should be related physically and functionally to existing buildings, be of an appropriate scale, and retain agricultural character; and 4. Any new building should respond sensitively to its rural setting in terms of its scale, layout, design, and use of materials, and have regard to the Farmsteads Assessment Guidance for Tunbridge Wells Borough SPD (2016),	There are no LSEs of this policy alone. This economic policy encourages development that diversifies farming / agricultural uses in TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	where relevant; and 5. The proposed development would not create an unacceptable impact on the local road network, or require highway improvements that would harm the landscape or ecological value of rural roads in the area. Where the above requirements are satisfied, the Council will, where appropriate: a. Remove permitted development rights for any new buildings; and/or b. Use conditions attached to the planning permission, or require the applicant to enter into a legal agreement to ensure that any new building is tied in perpetuity to the existing agricultural holding; and/or c. It may also be appropriate to enter into a land management agreement/plan.		
Policy ED 5: Conversion of Rural Buildings outside the Limits to Built Development	The Local Planning Authority will give priority to the retention and conversion of existing agricultural or other rural buildings for business, recreation, and tourism uses. The conversion of such buildings to residential use will only be permitted in exceptional circumstances in accordance with the criteria set out below. Proposals for the conversion of an existing agricultural or other rural building outside the Limits to Built Development, as defined on the draft Policies Map, will be required to satisfy all of the following criteria: 1. Conversions to alternative uses shall not compromise the existing or likely future operation or management of the land for farming or forestry, or result in the need for further buildings as a result of displacement; and 2. The building is of permanent, substantial and sound construction and capable of conversion to the proposed use without significant reconstruction, modification, or additions. Any required extensions will be modest in size, and the minimum necessary for the use proposed; and 3. The proposed use will not be harmful to the character, amenity, and	There are no LSEs of this policy alone. This economic policy outlines the plans for prioritizing the conversion of existing buildings for business use. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy ‘in-combination’ with other plans. There are no impact pathways present and this policy can thus be screened out ‘in-combination’.

	tranquility of the area; and 4. Proposed alterations to the building and provision of, or changes to, access arrangements shall be in keeping with the character and appearance of the building and its wider landscape setting in terms of materials, design, and form, and shall not cause harm to the local landscape character or features; and 5. A full programme of works detailing exactly what the conversion entails, from initial structural survey and analysis work through to completion, shall be submitted with any planning application. The programming of the work to be undertaken will be controlled by way of a planning condition attached to any permission granted; and 6. The building should be capable of conversion without requiring additional outbuildings or a material or significant change to the setting of the building; and 7. The curtilage of the building shall be drawn as tightly as possible, while allowing adequate space for parking/turning for the proposed use, and the storage of business equipment where applicable, without detriment to the visual amenities of the countryside or the local landscape character; and 8. The new development shall not significantly increase traffic to cause material harm to the safety of the local highway network; and 9. Landscaping proposals (hard and soft landscaping), including details of sensitive boundary treatments and any changes in levels, shall be designed to enhance both the immediate landscape setting of the building and the wider rural locality. Additionally, for residential conversions: a. The building shall be worthy of retention for its historic or architectural value and makes a positive contribution to the landscape character, or is required		

	as part of a whole farm plan and no other use is viable; and b. The building should be in a sustainable location in relation to existing services and facilities and provide safe options for non-motorised forms of transport to these services; and c. It shall be demonstrated that the living conditions of future occupiers will not be harmed by proximity in relation to existing neighbouring uses, including farm activity (such as the movement of farming equipment, livestock, crop spraying), noise, and odours; and d. It has been clearly demonstrated that reasonable attempts have been made, without success, to secure a business reuse for the building and that uses other than residential are not viable. This should include details of active marketing at an appropriate value/rate and any interest received for a minimum period of two years. Where a conversion is permitted for tourism accommodation, a holiday occupancy condition will be attached preventing the use as a sole or main residence. In order to protect the character of the building and the landscape, and particularly in sensitive locations, such as the Area of Outstanding Natural Beauty and Green Belt, permitted development rights for extensions, alterations, outbuildings, hardstanding, and boundary treatments may be removed and external lighting strictly controlled.		
Policy ED 6: Commercial and Private Recreational (Including Equestrian) Uses in the Countryside	Proposals for the development of commercial recreational uses in the countryside will only be permitted where: 1. Priority is given to the conversion of existing buildings over newly built development; and in the case of a new facility, it is satisfactorily integrated with existing buildings where they are present; and 2. All new development is appropriate and sympathetic to its surroundings in	There are no LSEs of this policy alone. This economic policy contains detail about development of recreational sites in the countryside. It neither	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	terms of design, scale, siting, external materials, and appearance to avoid an adverse impact on the wider landscape, and the application demonstrates how it has regard to the advice documents listed in the supporting text above; and 3. Proposals are not sited in prominent or isolated locations; and 4. The proposal would not have a detrimental impact on the landscape setting of the area (including any existing trees and hedges), protected species and biodiversity, sites of nature conservation interest, archaeological, or heritage assets; and 5. Proposals sited in the High Weald AONB conserve and enhance its special landscape character and setting; and 6. There is no significant detrimental impact on residential amenity; and 7. Consideration is given to the cumulative impact of such development and their associated facilities; for example, access and hardstanding, storage and utilities, on landscape character and features; and 8. The proposal is accompanied by an integral landscaping scheme, including sympathetic boundary treatments that reflect the character of the adjoining countryside; and 9. Access and parking provisions are acceptable and the use does not significantly increase traffic to the detriment of the rural area or highway safety; and 10. Where appropriate, adequate provision is made for the security of the site in terms of the proposed development in relation to the manager/owner of any animals; and 11. Adequate provision is made for foul and service water drainage; and	provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	

	12. The proposal would not result in any excavation or engineering works, such as pond and lake excavation, where the deposition and use of any surplus spoil on site; for example, earth bunds, would be harmful to the character, appearance, and landscape setting of the area. Proposals will only include external lighting where it is demonstrated to be necessary, and designed so as not to impact any neighbouring properties or the wider countryside; the details, design, siting, and intensity of which should be submitted with any development proposal. External lighting will not normally be permitted in Dark Sky areas.		
Policy ED 7: Retention of, and promotion of new, tourist accommodation and attractions	**Retention of existing tourist accommodation** The retention of existing tourism accommodation (both serviced and non-serviced) will be supported where it is well located and attractive to the market. Where proposals are brought forward for the change of use of existing tourism accommodation, the following criteria will be applied: 1. Location: evidence that the character of the area has changed to such an extent that it is no longer a suitable location for tourism accommodation and not attractive for staying visitors; and 2. Evidence of marketing the building as an operational tourist facility over the last three years, or number of years trading if less. This should include brochures, advertisements, websites, entries in accommodation guides, etc.; and 3. Evidence that the property has been marketed for sale for at least two years at a market price, which reflects the existing use as tourism accommodation, and the condition of the building. Evidence of marketing the property should be submitted to the Council: to include details of agent/s used, copies of brochures and advertisements and dates, records of response, interest shown, and offers received with reasons for being rejected, if appropriate; and	There are no LSEs of this policy alone. This economic policy contains the provision of retaining and promoting new tourism opportunities within TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	4. Evidence of business planning and performance against targets; and 5. Evidence of any upgrading of the premises by the present owner to increase its attractiveness to the market. The Council may require the review of this submitted information by an independent consultant: it is expected that the applicant will cover the cost of this. **New tourism accommodation and visitor attractions** New visitor accommodation and visitor attractions will be supported, as well as the upgrading of any provision where it increases the range and/or quality of tourist facilities. Proposals to provide new sustainable tourism accommodation development, including hotels, guesthouses, bed and breakfast establishments, outdoor accommodation, self catering accommodation, and new visitor attractions will be supported subject to the following: a. The anticipated traffic generation will not harm highway safety and whether the location is readily accessible by a range of means of transport, including walking and cycling, and by public transport; and b. Acceptable impact on local and landscape character, particularly in relation to impact on the designated Area of Outstanding Natural Beauty; c. Consideration of the relationship to existing tourism development and facilities, including whether the proposal will contribute to the diversification of tourist attractions in the borough; and d. The impact on residential amenity in the locality.		

<table>
<tr><td></td><td>The proposal will be assessed against all other relevant policies in the Local Plan.</td><td></td><td></td></tr>
<tr><td>Policy ED 8: Town, Rural Service, Neighbourhood and Village Centres Hierarchy</td><td>To ensure the long term vitality and viability of the centres across the borough, the Council will apply a ‘town centre and allocated site first’ approach to proposals for retail, leisure, and other main town centre uses. Development should be appropriate to the size and function of the centre within which it is to be located. The defined centres hierarchy for the borough includes the defined primary regional, town, rural service, neighbourhood, and village centres.

<table><tr><th>Type of Centre</th><th>Centre</th></tr><tr><td>Primary Regional Town Centre</td><td>1. Royal Tunbridge Wells</td></tr><tr><td>Town Centre</td><td>1. Cranbrook
2. Paddock Wood
3. Southborough</td></tr><tr><td>Rural Service Centre</td><td>1. Hawkhurst</td></tr><tr><td>Neighbourhood Centre</td><td>1. Hawkenbury
2. High Brooms
3. Knights Wood
4. North Southborough
5. Sherwood
6. Showfields
7. Silverdale
8. St Barnabas
9. St Johns
10. St Peters
11. Tudeley Garden Village (to be defined)*
12. Paddock Wood (to be defined - subject to masterplanning)*</td></tr></table></td><td>There are no LSEs of this policy alone.

This economic policy details the settlement hierarchy within TWB. It neither provides the quantum or location of new development.

Therefore, there are no impact pathways present and this policy can thus be screened out.</td><td>There are no LSEs of this policy ‘in-combination’ with other plans.

There are no impact pathways present and this policy can thus be screened out ‘in-combination’.</td></tr>
</table>

	Village Centres 1. Benenden 2. Bidborough 3. Brenchley 4. Five Oak Green 5. Frittenden 6. Goudhurst 7. Hawkhurst (The Moor) 8. Horsmonden 9. Iden Green 10. Kilndown 11. Lamberhurst 12. Langton Green 13. Matfield 14. Pembury 15. Rusthall 16. Sandhurst 17. Sissinghurst 18. Speldhurst *New neighbourhood and village centres will be designated as part of the extension of Paddock Wood/including on land in the east of Capel Parish based on garden settlement principles and the creation of the new garden settlement at Tudeley Village.		
Policy ED 9: Defined Town and Rural Service Centres	Within the town and rural service centres, as defined on the draft Policies Map, planning permission will be granted for development of a range of appropriate uses where they contribute to the vitality and viability of the centre and/or respond to changing needs/trends over the life of the Local Plan. The Council will seek to enhance the established character and diversity of centre uses, and may resist the over-concentration of particular uses that would be detrimental to the character and function of an area, or to the vitality	There are no LSEs of this policy alone. This economic policy outlines the service needs for town and rural service centres. It neither provides the quantum or	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	or viability of the centre. Development proposals within the defined centres should be of an appropriate scale in accordance with its functional position in the retail hierarchy as set out above in Policy ED 8.	location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	
Policy ED 10: Sequential test and local impact test	**Sequential Test** 1. Proposals for retail, office, and leisure uses should be located in a defined centre, unless: a. by means of a sequential approach, it is demonstrated that the proposal could not be accommodated first on a site within an existing centre and the proposal is located at the edge of an existing centre; or second, it is demonstrated that the proposal could not be accommodated on a site within, or at the edge of, an existing centre and the proposal is located on an accessible out-of-centre site; and b. by means of an impact assessment it is demonstrated that a retail, office, or leisure proposal would not result in a significant adverse impact, cumulative or otherwise, on the vitality and viability of an existing centre or undermine the delivery of a site allocated for the use proposed; or c. the development is on a site allocated for that use in the Plan; or d. the development is designed to only serve the needs of the neighbourhood 2. Proposals located at the edge of an existing centre or out of centre should ensure the provision of specific measures that will improve the quality and function of sustainable connections to the centre, in particular walking and cycling routes, and public transport links. The nature and extent of the measures will be directly related to the scale of the proposal. **Local Impact Test**	There are no LSEs of this policy alone. This is an economic policy relating to impact testing of town centre proposals. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	3. Applications for development above the following thresholds should be accompanied by an impact assessment: a. Royal Tunbridge Wells Town Centre: 1,000sqm (net) b. Southborough, Paddock Wood, Cranbrook, and Hawkhurst: 280sqm (net) 4. The impact assessment should include: a. the impact of the proposal on existing, committed, and planned (where this information is publicly available) public and private investment in a town centre or town centres in the catchment area of the proposal; and b. the impact of the proposal on town centre vitality and viability, including local consumer choice and trade in the town centre and wider area, up to five years from the time the application is made. For major schemes where the full impact will not be realised in five years, the impact should also be assessed up to 10 years from the time the application is made; and c. the impact test should be undertaken in a proportionate and locally appropriate way, commensurate to the scale of development proposed; 5. Applicants should demonstrate flexibility on issues such as format and scale, and will be expected to provide the Council with robust evidence of this. 6. Where an application fails to satisfy the sequential test, or is likely to have an adverse impact, it will be refused.		
Policy ED 11: Primary Shopping Areas and Retail Frontages	Primary Shopping Areas and primary retail frontages are defined at Royal Tunbridge Wells, Southborough, Paddock Wood, Cranbrook, and Hawkhurst, as defined on the draft Policies Map. 1. To ensure that retail and complementary town centre uses remain the predominant uses within the defined Primary Shopping Area and defined	There are no LSEs of this policy alone. This is an economic policy addressing the development of shopping	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this

	primary retail frontages, new development, including that with residential above ground floor, will be permitted where: a. The proposal is for retail (A1) use at ground floor (or ground floor plus higher storeys); or b. The proposal is for a café and restaurant use (A3), leisure (D2) or community use (D1), a drinking establishment (A4), professional and financial services, or sui generis use that has similar characteristics to A1, A2, A3, D1, D2, or A4, at ground floor (or ground floor plus higher storeys). 2. Change of use of ground floor premises in these areas will be permitted where the proposed use: a. Retains an active shop front and maintains or enhances the vitality, attractiveness, and viability of the primary shopping frontage and the wider shopping area; or b. Is complementary to the shopping function of the area and provides a direct service to the public; and c. Does not result in an over-concentration of sui generis uses such as betting agents, pay-day loan shops and casinos within one area, and contributes to an appropriate mix and diverse offer. Change of uses of ground floor premises to residential or other non-retail/leisure type uses as listed above will not normally be permitted, although changes of use to residential at first floor in such locations generally will be supported, subject to conformity with other policies in the Local Plan.	areas in town centres. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	policy can thus be screened out 'in-combination'.
Policy ED 12: Retention of Local Services and Facilities Within Defined Neighbourhood and Village Centres	Proposals that would result in the loss of a local facility from within a defined Neighbourhood or Village Centre, or within a 400 metre distance from a Neighbourhood or Village Centre boundary, as defined on the draft Policies Map, will not be permitted unless it can be clearly demonstrated that: 1. Suitable and/or comparable alternative provision is available within the defined centre or close locality; and	There are no LSEs of this policy alone. This economic policy contains the provision of retaining local services near identified centres. It neither provides the	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	2. For commercial uses, it is: a. not viable, or unlikely to become commercially viable, to operate the number of existing services/facilities within the centre, and b. it has been the subject of appropriate marketing for a period of two years and consideration has been given to other alternative commercial uses; and 3. In the case of public facilities, demand within the locality no longer exists, or there are clear operational reasons for closing, or moving the facility and the wider importance of the facility to the community has been taken into account. The Council may require the review of any submitted information by an independent consultant; it is expected that the applicant will cover the cost of this.	quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	
Transport and Parking Policies			
Policy TP 1: Transport Assessments, Travel Plans and Mitigation	Development proposals must: 1. Demonstrate that the impacts of trips generated to and from the development are accommodated, remedied, or mitigated to prevent significant residual impacts, including where necessary an exploration of delivering mitigation measures ahead of the development being occupied; and 2. Provide a satisfactory transport assessment for proposals that reach the required threshold levels set by Kent County Council's Guidance on Transport Assessments and Travel Plans and in Highways England guidance (see Table 8 above); and 3. Demonstrate that the development complies with the requirements of Policy EN 23: Air Quality and the 'emissions mitigation assessment and cost calculation'. Furthermore, all development will be required to be accompanied by a transport assessment and a travel plan if the location of the development has existing traffic issues or lack of transport infrastructure, as identified by the	There are no LSEs of this policy alone. This policy details that all new development must be accompanied by a transport assessment. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Local Highway Authority. Where adequate transport infrastructure is not available to serve the development, the Local Planning Authority will seek the provision of, or contributions towards, appropriate measures that will address the identified inadequacy, and which will enable active travel and provide other highway improvements. As such, where a proposal necessitates highway improvements, the developer will be required to meet the cost of the improvements where these are fairly and reasonably related to the development.		
Policy TP 2: Transport Design and Accessibility	Development proposals will only be permitted provided all of the following criteria are met: 1. The development is accessible to all and permeable by all relevant modes of transport, with priority given to active forms of travel in accordance with Kent County Council's Design Guide. This will include suitable arrangements for access by large vehicles. This will take account of public transport (buses), goods, emergency, and waste collection vehicles for delivery, servicing, and drop-off. The development must also be able to accommodate the swept path of vehicles on proposed new infrastructure. This should include the largest vehicles expected to access the area; and 2. There is public transport service and infrastructure provision within reasonable close proximity; and 3. If located on, or adjacent to, a cycle route, the development will maintain and enhance, or provide a segregated link to (via the development site), the cycle route with reference to the Council's latest Cycling Strategy. Maintenance will be delivered through commuted sums to Kent County Council; and 4. Where already in existence, the public rights of way network should be safeguarded. Re-routing of existing public rights of way will be permitted provided that the network is overall enhanced. If there is an opportunity to do so, the development should also consider creating a new public right of way	There are no LSEs of this policy alone. This policy establishes the transport infrastructure requirements for all new developments. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	to improve connections to, and/or within, the site, or to enhance the existing local network, including improvements to signage. Where appropriate, financial contributions to improvements to off-site public rights of way will be sought; and 5. Roads within the development are designed and delivered in accordance with the Manual for Streets guidance and, in historically sensitive areas, Historic England's national and regional Streets for All: Advice for Highway and Public Realm Works in Historic Places guidance; and 6. All facilities and services open or provided to the public within the development will be made available for use by persons with disabilities in accordance with Article 9 (accessibility) and 19 (living independently and being included in the community) of the United Nations Convention on the Rights of Persons with Disabilities; and 7. The development incorporates self-enforcing measures into the design that encourages vehicle speed reduction and if appropriate the developer will be required to investigate amending external speed limits adjacent to, and in the vicinity of, the site's access; and 8. Suitable provision is made for car club facilities, car share, and/or cycle share as deemed appropriate; and 9. Suitable provision is made for electric car charging points (or any new technology requirements). The developer must refer to the minimum standards set out in the Local Planning Authority's latest Electric Vehicle Charging Points for New Development Guidance Note for Applicants [(79)]. Shared space schemes, where there is a level surface, will also only be permitted in the following instances: a. Raised junctions, speed tables, speed bumps, and other related traffic		

	calming features; and/or b. Pedestrian crossings; and/or c. Cul-de-sacs servicing 25 properties or less; and/or d. Schemes where the contract to construct has already been awarded (or planning/technical design has been approved).		
Policy TP 3: Parking Standards	**Size of parking spaces** Car parking spaces are expected to be provided in accordance with the following sizes: 1. If parking space does not have a wall on any side = 2.6m (width)/5m (length); 2. If parking space has a wall on one side = 2.7m (width)/5m (length); 3. If parking space has a wall on both sides = 2.9m (width)/5m (length). In new residential development at least 15% of all proposed parking spaces must be 3.5m (width)/7.5m (length) in size in order to accommodate light goods vehicles. **Layout and landscaping of parking spaces/areas** All parking will be expected to be delivered on site in a suitable layout. Tandem parking will not be considered acceptable unless it can be demonstrated that the design of the development does not allow for parking on the road/street. Car barns will also only be considered when they are open on three sides and permitted development rights will be removed to prevent subsequent alteration. Additionally, all communal parking facilities must have at least two entry/exit points for pedestrians (to encourage activity and pedestrian movement through these), and must be subject to passive surveillance. Ideally these will be linked to, or located at, the edge of open spaces. It is also essential that new development is not dominated by parking. Proposals must therefore indicate how robust and appropriate soft landscaping will be incorporated into,	There are no LSEs of this policy alone. This policy provides for the standard of parking (e.g. number of spaces) within TWB. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

and around, parking areas.

(See Policy EN1: Design and other development management criteria)

Residential parking standards

The residential parking standards detailed within the table below will apply to proposals that are classed under Use Class C3 (dwellings) in accordance with the Council's Residential Parking Standards Topic Paper, unless there are exceptional circumstances, which are listed within the policy.

When considering whether a room is a 'bedroom', regard will be given to its position within the property, whether there is a window to the room, and whether it can accommodate a single adult bed, which can be accessed through an internally opening door with space for storage of domestic items/clothes, etc., within that room.

	Zone A	Zone B	Zone C
Zone Definition	Royal Tunbridge Wells Town Centre Area	Inside the Limits of Built Development of: Royal Tunbridge Wells (excluding Zone A), Southborough (within Southborough parish), Rusthall (within Rusthall and part of Speldhurst parish), Pembury, Paddock Wood,	Everywhere in the borough excluding Zone A and Zone B

		Cranbrook, and Hawkhurst (Highgate and The Moor)	
Parking Standard Definition	Mandatory	Minimum	Minimum
1 Bed Flat	1	1	1
1 Bed House	1	1	1
2 Bed Flat	1	1	1.5
2 Bed House	1	1	1.5
3 Bed Flat	1	1.5	2
3 Bed House	1.5	1.5	2
4+ Bed Flat	1.5	1.5	2
4+ Bed House	2	2	2.5
Additional Visitor Parking	0.2 per unit	0.2 per unit	0.2 per unit

* Garages will not be counted within parking standards unless they are of a minimum 3.6m (width)/7m (length) in size. If a garage of this minimum size is to be incorporated into the proposal, a condition may be applied that removes permitted development rights for conversion of the garage. Car ports, car barns, and communal parking courts will also be counted towards the overall parking provision.

Within Zone A (Royal Tunbridge Wells Town Centre Parking Area, as defined on the Royal Tunbridge Wells draft Policies Map), proposals shall deliver mandatory parking provision per residential unit. Within Zones B and C, as

	defined in the table above, developers will be required to provide minimum parking standards per residential unit. It is expected that all provision of parking space should be delivered on site. Residents of new residential developments that are within a Controlled Parking Zone will not be eligible for parking permits. Traffic Regulation Orders will therefore be amended so that new residential developments are excluded from Controlled Parking Zones. It is expected that the cost of advertising and administering any change to the Traffic Regulation Order in association with this will be met by the developer. This will also apply to suitable areas deemed eligible for car club development, including new significant developments, within any Zone, that would benefit from a 'Community Car Club'. The developer of these proposals will also be expected to make an appropriate contribution to, or provide at least one parking space and support a car club car for a specified period of time for, the Local Planning Authority's Car Club programme. Developers are advised to refer to the Local Planning Authority's latest Guidance for Developers, Planners and Sustainability on Car Club Set Up (*add link)* document and Section 106 Planning Obligations Good Practice Guide [(81)]. Equally, the provision of a cycle share/hire scheme may be deemed appropriate and decided on a site by site basis. Residential Institutions (Use Class C2) will be required to provide parking standards in accordance with the maximum standards outlined within Kent County Council's SPG4 or in later guidance if superseded. Safe and secure cycle parking provision within all new residential development will be required at the minimum standards outlined within Kent County Council's SPG4 or in later guidance if superseded. **Non-Residential Parking Standards** All proposals for non-residential development within the borough shall apply the maximum parking standards in accordance with the standards outlined within Kent County Council's SPG4 or in later guidance if superseded. These standards are listed in the table below:		

Use Class	Maximum Parking Standard per Use Class
A1 Food Retail up to 1,000m²	1 space per 18m²
A1 Food Retail of 1,000m² and over	1 space per 14m²
A1 Non-Food Retail	1 space per 25m²
A2 Use Class	1 space per 20m²
A3 Use Class	1 space per 6m²*
A4 Use Class	1 space per 10m²*
A5 Use Class	1 space per 8m²*
B1 Office Use (up to 500m²)	1 space per 20m²
B1 Office Use (up to 2,500m²)	1 space per 25m²
B1 Office Use (2,500m² and over)	1 space per 30m²
B1 High Tech/Research/Light Industrial	1 space per 35m²
B2 Use Class	1 space per 50m²
B8 Storage and Distribution	1 space per 110m²
B8 Wholesale Trade	1 space per 35m²
C1 Hotels	1 space per bedroom*

* These use classes are also required to deliver one space per two staff in addition to the standard set out above.

All floorspace references in this table refer to gross external floorspace.

The parking standards, parking space design and dimensions, and guideline walking distances to facilities for persons with impaired mobility for all non-

	residential development will be in accordance with those outlined within Kent County Council's SPG4 or in later guidance if superseded. Safe and secure cycle parking provision within all new non-residential development will also be required at the minimum standards outlined within Kent County Council' s SPG4 or in later guidance if superseded. Contributions/provision towards car club and/or cycle share/hire may be deemed appropriate and decided on a site by site basis. **Exceptional circumstances** In exceptional circumstances, the Local Planning Authority may require proposals to depart from the parking standards of both residential and non-residential developments if any of the following apply: 1. A bespoke parking standard is included as part of a site-specific allocation policy in this Local Plan, including in those to be determined by a masterplanning approach, or in a made neighbourhood plan that seeks to take into account specific local circumstances in that area. These parking standards will have primacy over the requirements within this policy. In relation to masterplanning this is especially recommended as there is the potential that Paddock Wood (including land in Capel parish) and particularly Tudeley Village could be designed with highly sustainable transport links/permeability/accessibility; and/or 2. Where there is a relevant parking standards policy in a made neighbourhood plan; and/or 3. Where an operator or potential occupier requires either more or less parking spaces to cater for their specific operational needs, such requirements can be clearly evidenced, and where their presence has wider planning benefits; and/or		

	4. To ensure the successful restoration, refurbishment, and reuse of listed buildings, or buildings affecting the character of a conservation area; and/or 5. To allow the appropriate reuse of the upper floors of existing buildings in town centres or above shop units, where it can be demonstrated that this reuse will have wider planning benefits; and/or 6. Should independently verified viability evidence demonstrate that achieving the required parking standard would both render the scheme unviable, and that there are overriding planning benefits to justify that the development should proceed; and/or 7. Where approval is obtained from both Kent County Council and the Local Planning Authority for the development of advanced technology vehicle systems (including those that are autonomous) that will provide for transport needs within the community being served, and which may link and contribute to existing or new similar systems servicing other nearby towns, town centres, and transport services. The promoter of such a system must show a compelling justification that the removal or substantial reduction or modification in the need for parking spaces in accordance with the requirements within this policy can be sustained without detriment to the local road network or town centres. Where appropriate, the Local Planning Authority will pursue the use of Controlled Parking Zones (CPZs) to support the wider strategy for the management of on-street parking in accordance with the approach outlined in this policy.		
Policy TP 4: Public Car Parks	The Local Planning Authority will seek to retain public car parks in the borough, as defined on the draft Policies Map. Development will only be permitted on these public car parks provided at least one of the following criteria is met: 1. The proposed development would result in net additional, or no net loss of,	There are no LSEs of this policy alone. This policy provides for the retention of all public car parks within TWB. It neither provides the	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened

	public car parking space on site and will not reduce accessibility. This may be achieved by providing additional storeys and/or underground parking, or if the proposed developed area is exterior to the area of the site that is used for public car parking; or 2. The car park could be relocated elsewhere within close proximity, which would both not result in net loss of car parking places, unless the car parking demand was considered less than that which was provided on the proposed development site, and which would not result in an increase in on-street car parking or have any significant negative impacts on the traffic within the area; Or 3. The demand for car parking places in the car park being proposed for development is evidenced to be, and with regard to likely future trends, easily accommodated within an existing nearby public car park, which would not result in an increase in on-street car parking or have any significant negative impact on the traffic within the area, or on accessibility to the alternative car park; or 4. The community benefits arising from development on the public car park is considered to be greater than that of the harm caused from the loss of public car parking spaces.	quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	out 'in-combination'.
Policy TP 5: Railways	**Safeguarding Railway Land** Development that is located adjacent to Network Rail's land, assets, and/or operational railway infrastructure will not be permitted if the development will have a negative impact on the safe and continuous operation of the associated railway service(s) in accordance with Network Rail's standard guidelines. Land surrounding railway stations that are suitable for development for the purpose of commuter car and/or cycle parking, bus interchanges, or station facilities, will be safeguarded to make way for potential future provision, expansion, and/or proposals promoted by National Rail policies, by Network	There are no LSEs of this policy alone. This policy details plans regarding the safeguarding of railway land. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	Rail, by train operators, or by the Local Planning Authority. **Tunbridge Wells Central to Eridge Railway Line** The Local Planning Authority will safeguard the Tunbridge Wells Central to Eridge railway line, as defined on the draft Policies Map, by refusing proposals that would compromise the re-opening of the rail line and/or its use as a green infrastructure corridor. **The Former Paddock Wood to Hawkhurst (Hop Pickers) Line** The Local Planning Authority will also safeguard the Paddock Wood to Hawkhurst former railway line, as defined on the draft Policies Map, by refusing proposals that would compromise its use as a green infrastructure corridor.	and this policy can thus be screened out.	
Policy TP6: Safeguarding Roads	1. The three locations detailed below, as defined on the draft Policies Map, are safeguarded for the widening, alteration, improvement, or dualling of existing roads, or the provision of new roads. 2. The Local Planning Authority will refuse proposals for development that would compromise the implementation of either proposed schemes (e.g. the off-line A228), or potential road improvements/widening (e.g. at Halls Hole Road) in these locations. **Land for 'offline' A228 strategic link** Land is safeguarded for the provision of an 'offline' A228 strategic transport link and junctions, as indicated on the draft Policies Map. **A21 Kippings Cross to Lamberhurst Improvements** The Highways Agency proposes to construct an upgrade of the A21 from Kippings Cross to Lamberhurst Bypass, as defined on the draft Policies Map, and the Local Planning Authority will safeguard the preferred alignment by	There are no LSEs of this policy alone. This policy details plans regarding the safeguarding of roads. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

	refusing proposals. **Land at Halls Hole Road** This site is safeguarded for future road improvements/widening.		
Open Space, Sport, and Recreation Policies			
Policy OSSR 1: Retention of Open Space	Existing open space, sports, and recreational buildings and land, including playing fields, as defined on the draft Policies Map, unless allocated for another purpose/use/development in this Local Plan, should be retained and not be built on unless it can be demonstrated that: 1. An assessment has been undertaken that has clearly shown the open space, buildings, or land to be surplus to requirements in terms of quantity, contribution to local character, and setting, and that there is no need for an appropriate alternative community, sports, or recreational use; or 2. The loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or 3. The development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use; or 4. The proposal is a mixed use scheme with demonstrable open space, sports, and recreational provision, and healthy living benefits that mitigate the loss; or 5. In relation to recreational buildings, it can be demonstrated that there is suitable alternative provision on the site, or in the vicinity of the site, or if operated on a commercial basis, the facility is no longer viable and has been marketed for 12 months by appropriate agents for the use, and has been advertised at an appropriate level.	There are no LSEs of this policy alone. This is a positive policy detailing the retention of open space for recreational purposes. This could be important in reducing recreational pressure on Ashdown Forest SPA / SAC. It neither provides the quantum or location of new development. Therefore, there are no impact pathways present and this policy can thus be screened out.	There are no LSEs of this policy 'in-combination' with other plans. There are no impact pathways present and this policy can thus be screened out 'in-combination'.

<table>
<tr>
<td>Policy OSSR 2: The Provision of Publicly Accessible Open Space and Recreation</td>
<td>1. For new housing or mixed use development sites, the Local Planning Authority will seek to deliver the following categories of publicly accessible open space, sports, and recreation provision in accordance with the specified minimum standards as set out below, and further detailed within the Open Space Supplementary Planning Document:

Eligible types of residential development

<table>
<tr><th>Category</th><th>Open Market housing/flats</th><th>Affordable Housing</th><th>Housing for the active elderly</th><th>Permanent mobile homes</th></tr>
<tr><td>Play Space</td><td>Y</td><td>Y</td><td>N</td><td>Y</td></tr>
<tr><td>Outdoor Sports Space</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr>
<tr><td>Parks and Gardens</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr>
<tr><td>Amenity Open Space</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr>
<tr><td>Natural Green Space</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr>
<tr><td>Allotments</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr>
</table>

Requirement for open space, sport and recreation facilities

<table>
<tr><th>Type of Provision</th><th>1-19 dwellings</th><th>20-49 dwellings</th><th>50-99 dwellings</th><th>100+ dwellings</th></tr>
<tr><td>Allotments</td><td>N</td><td>N</td><td>N</td><td>Y</td></tr>
<tr><td>Amenity / Natural Green</td><td>N</td><td>Y</td><td>Y</td><td>Y</td></tr>
</table>
</td>
<td>There are no LSEs of this policy alone.

This is a positive policy detailing the provision standards (in terms of area and distance) of recreational greenspace for new development. This could be important in reducing recreational pressure on Ashdown Forest SPA / SAC. It neither provides the quantum or location of new development.

Therefore, there are no impact pathways present and this policy can thus be screened out.</td>
<td>There are no LSEs of this policy ‘in-combination’ with other plans.

There are no impact pathways present and this policy can thus be screened out ‘in-combination’.</td>
</tr>
</table>

Space

Parks and Recreation Ground	N	N	N	Y
Play Space (Children)	N	N	Y	Y
Play Space (Youth)	N	N	N	Y

Key: Y - on-site provision normally sought, N - improvements to existing (off-site provision normally required

* the minimum size of amenity natural green space considered acceptable as part of new development is 0.15 ha , i.e. for developments that require on-site provision, but which would result in less than 1.15 ha of amenity/natural green space against the standard, the minimum size of amenity/natural green space is 0.15 ha.

Open Space Type	Quantity standard for new provision (HA/1000)*	Access standard (radius from open space)**
Amenity Green Space (above 0.15 ha in size) e.g. Areas of informal open space and general recreational areas	0.8	600 metres or 12-13 minutes straight line walk time
Natural Green Space e.g. meadows, woodlands, river valleys, wetlands)	0.8 to include natural and amenity green space for new provision	Accessible Natural Greenspace Standard (ANGST) At least one accessible 20ha site within 2km of home

			One accessible 100ha site within 5km of home One accessible 500ha site within 10km of home A minimum of 1ha statutory Local Nature Reserve per 1000 population		
	Park and Recreation Grounds e.g. General recreation grounds which may also include other facilities, play space, outdoor sports space	1.1	600 metres or 12-13 minutes straight line walk time		
	Play Space (Children) e.g. Equipped play areas catering up to the age of around 12	0.04	480 metres or 10 minutes straight line walk time		
	Play Space (Youth) e.g. Skateboard parks, basketball courts, hangouts and shelters and Multi use games areas catering for age 13-17	0.04	720 metres or 15 minutes straight line walk time		
	Allotments e.g. Land used for growing of own produce – does not include private gardens	0.3	720 metres or 15 minutes straight line walk time		

	*/** The Access Standards are set out within Section 6 of the Open Space, Sport and Recreation Study and will be explained fully within the Open Space Supplementary Planning Document. 2. If open space, sports, and recreation provision cannot be provided in full on development sites due to site constraints or location, or other site specific factors, then provision should be provided off site where it is within the distance from the development site identified in the accessibility standard; 3. If other schemes and projects have been identified that would better meet the need for open space provision in the locality as part of new development, contributions may be sought in lieu of applying the access standards where relevant; 4. Exceptionally, a financial contribution in lieu of open space will be acceptable, provided: a. The proposed development site would be of insufficient size in itself to make the appropriate new provision; or b. The open space cannot be accommodated on site due to site constraints or location, and alternative appropriate off-site provision cannot be identified; 5. Where it can be demonstrated that existing open space provision can either wholly or partially mitigate the impacts of development in accordance with the above standards, the Local Planning Authority may seek a reduced level of provision or financial contribution. Developers should take full account of open space requirements at an early stage of the development management process, and are encouraged to engage with the Local Planning Authority to determine the most appropriate quantum, type, and location of open space provision; 6. The Local Planning Authority will seek to ensure the provision of the typologies of open space that are most needed in the relevant area, taking account of the above standards and the quality assessment set out in the relevant study, as well as the suitability of the site to accommodate the identified needs;		

	7. Proposals for, and including, new publicly accessible open space and recreation provision will, where feasible, seek to reinforce existing landscape character, as defined in the Borough Landscape Character Assessment SPD where appropriate; 8. Proposals for, and including, new publicly accessible open space and recreation provision shall respect the amenities of neighbouring occupiers, by ensuring that development does not result in excessive levels of noise or light pollution. 9. Opportunities for formal community use agreements of existing and proposed facilities should be explored to increase existing provision to the general public. The Open Space Supplementary Planning Document will contain further detail on how the policy will be applied and implemented, and quality standards that the Local Planning Authority will have regard to in all new developments and for the improvement of existing provision where relevant.		

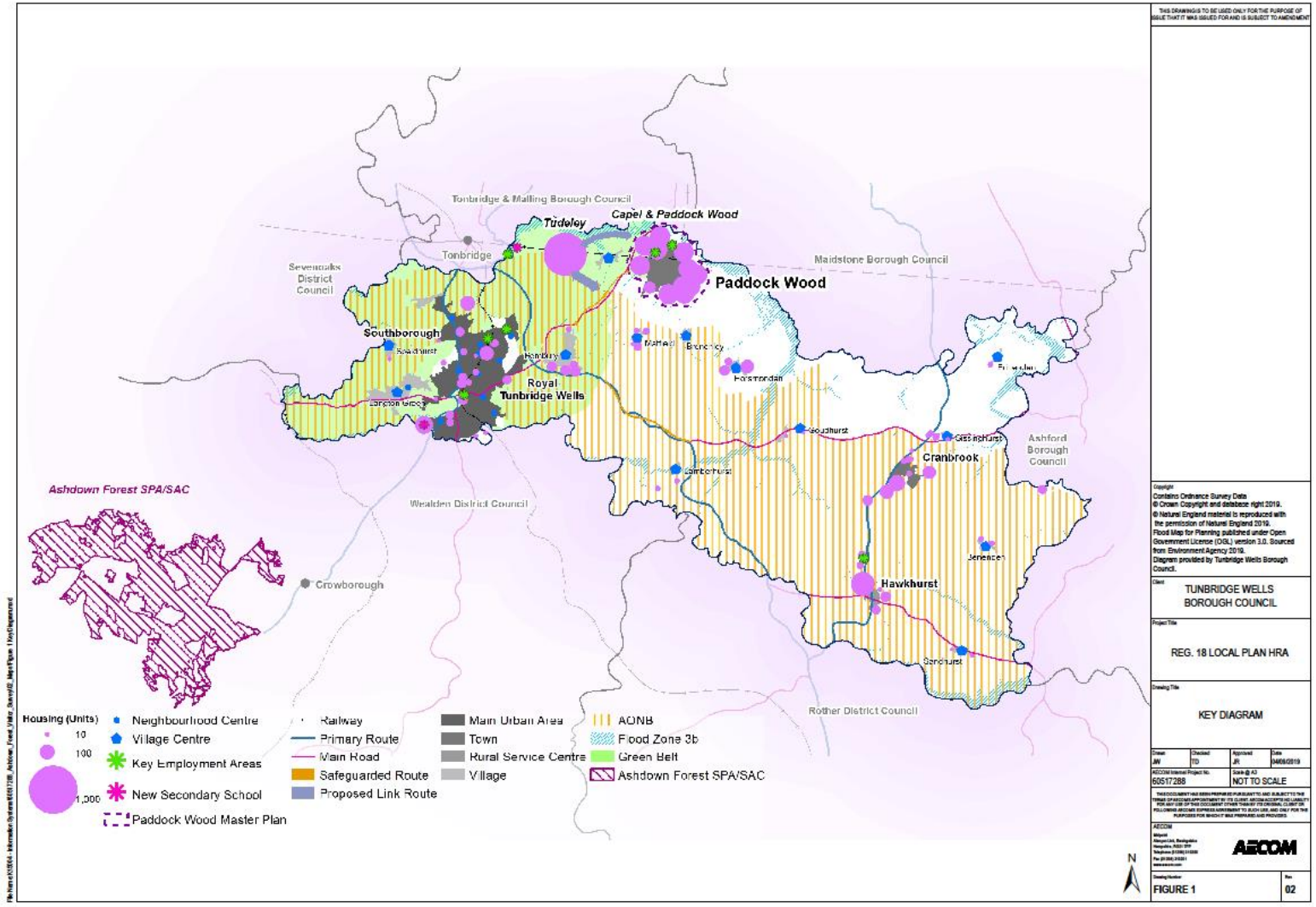

Figure 4: Traffic contribution to concentrations of pollutants at different distances from a road

Appendix 2: Initial screening process of individual site allocations.

Appendix 2 presents an initial sift of proposed residential and employment site allocations within the Local Plan from the point of view of HRA. All site allocations have been coloured green in the 'HRA implications' column, this indicates that the allocations do not contain potential impact pathways linking to European designated sites and have been screened out from further consideration both alone and 'in-combination'. Individual residential site allocations have been screened out with regards to recreational pressure because they are located more than 7km from Ashdown Forest SAC and SPA. Individual residential and employment site allocations have been screened out with regards to air pollution because they are located more than 200m from a European designated site.

Site Ref	Settlement/ Site Allocation name	No of Residential Units	Amount of Employment Space	Distance from Internationally Designated Sites	HRA Implications
Royal Tunbridge Wells Area Policies AL/RTW Residential and Employment Site Allocations.					
AL/RTW 1	Mount Pleasant car park and surgery, Mount Pleasant Road and Great Hall car park and surgery, Mount Pleasant Road	None	5,000 m^2	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 2	Land at Royal Victoria Place Shopping Centre, Calverley Road	None	13,000 m^2	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 3	Former Cinema Site, Mount Pleasant Road	100	Not Specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall

					strategic policies for the different areas.
AL/RTW 4	Torrington and Vale Avenue	100	Not Specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 5	Cultural and Learning Hub (The Amelia Scott)	None	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 6	The Civic Complex: The Town Hall, Assembly Hall Theatre and Police Station	None	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 7	Land at Goods Station Road	10-15	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 8	Land at Lifestyle Ford, Mount Ephraim, Culverden Street, Rock Villa Road	80	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little

					employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 9	Land at 1 Meadow Road and 8 Upper Grosvenor Road	None	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 10	Land at the Auction House, Linden Park Road	None	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 11	Former Plant & Tool Hire, Eridge Road	37-60	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 12	Land adjacent to Longfield Road	None	80,000 m^2	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

AL/RTW 13	Land at Colebrook House, Pembury Road	None	10,000 m^2	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 14	Land at the former North Farm landfill site, North Farm Lane and land at North Farm Lane, North Farm Industrial Estate	None	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 15	Land at Knights Park	None	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 16	Land at Wyevale Garden Centre, Eridge Road	Not specified	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 17	Land at 36-46 St. John's Road	65-90	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

AL/RTW 18	Land to the west of Eridge Road at Spratsbrook Farm	270	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 19	Land at 77 Mount Ephraim	None	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 20	Land at Tunbridge Wells Telephone Engineering Centre, Broadwater Down	50	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 21	Land at Culverden Stadium, Culverden Down	30	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 22	Land at Bayham Sports Field West	20-25	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present.

					We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 23	Land to the north of Hawkenbury Recreation Ground	None	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 24	Land at Cadogan Sports Field, St. John's Road	30-40	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 25	Land at Colebrook Sports Field, Liptraps Lane	60	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 26	Land at Cemetery Depot, Benhall Mill Road	20	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 27	Land at Hawkenbury, off Hawkenbury	220-250	None	More than 10km away	No HRA implications.

	Road, Maryland Road			from Ashdown Forest SPA/SAC.	Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 28	Land at Rowan Tree Road, Showfields Road	Not specified	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 29	Land at former Gas Works, Sandhurst Road	170	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 30	Land at Medway Road	35	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/RTW 31	Land at 123-129 Silverdale Road	13	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall

					strategic policies for the different areas.
AL/RTW 32	Land at Beechwood Sacred Heart School	69	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Southborough Area Policies AL/SO Residential and Employment Site Allocations					
AL/SO 1	Southborough Hub, London Road	69	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/SO 2	Speldhurst Road former allotments (land between Bright Ridge and Speldhurst Road)	16	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/SO 3	Land at Mabledon and Nightingale	50-120	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall

					strategic policies for the different areas.
AL/SO 4	Land at Mabledon House	Not specified	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Paddock Wood Area Policies AL/PW Residential and Employment Site Allocations					
AL/PW 1	Land at Capel and Paddock Wood	4,000 + 3 pitch gipsy traveler site	Not specified	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PW 2	Paddock Wood Town Centre	None	400-750 m^2	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PW 3	Land at Mascalls Farm	425	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different

					areas.
AL/PW4	Land at the Memorial Field, west of Maidstone Road	None	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Capel Area Policies AL/CA **Residential and Employment Site Allocations**					
AL/CA 1	Tudeley Village	1,900	Not specified	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CA 2	Land to east of Tonbridge / west of site for Tudeley Village	None	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CA 3	Land at Capel and Paddock Wood	4,000	Not specified	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

Cranbrook and Sissinghurst Area Policies AL/CRS Residential and Employment Site Allocations					
AL/CRS 1	Land adjoining Wilsley Farm, adjacent to Angley Road and Whitewell Lane	15-20	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 2	Big Side Playing Field, adjacent to Quaker Lane and Waterloo Road	10-15	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 3	Jaegers Field, Angley Road	30-35	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 4	Turnden Farm, Hartley Road	160-170 (124-134 net new housing)	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

AL/CRS 5	Land adjoining Cranbrook Primary School, Quaker Lane	35-45	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 6	Gate Farm, adjacent to Hartley Road and Glassenbury Road, Hartley	90	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 7	Land off Golford Road	150	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 8	Former Cranbrook Engineering Site and Wilkes Field	28	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 9	Land adjacent to the Crane Valley	200-250	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there

					are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 10	Cranbrook School	None	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 11	Sissinghurst Castle Garden	None	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 12	Land on the east side of Mill Lane	5-10	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 13	Land east of Camden Lodge, adjacent to Mill Lane and Sissinghurst Road	40	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 14	Land south of The Street	20	None	More than 25km away	No HRA implications.

				from Ashdown Forest SPA/SAC.	Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 15	Oak Tree Farm, The Common, Wilsley Pound	15-20 + 2 gypsy ptches	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 16	Land at Boycourt Orchards, Angley Road, Wilsley Pound	20-25	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/CRS 17	Land adjacent to Orchard Cottage, Frittenden Road, and land at junction of Common Road and Frittenden Road	None	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Hawkhurst Area Policies AL/HA Residential and Employment Site Allocations					
AL/HA 1	Land forming part of the Hawkhurst Golf Course to the north of the High	400-450	None	More than 25km away from Ashdown Forest	No HRA implications. Due to the relatively long

	Street			SPA/SAC.	distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 2	Land at the White House, Highgate Hill	15	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 3	Land to the east of Heartenoak	28	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 4	Land at Fowlers Park	100	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 5	Brook House, Cranbrook Road	25	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall

					strategic policies for the different areas.
AL/HA 6	Land off Copthall Avenue and Highgate Hill	70-79	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and relatively little additional housing involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 7	Sports Pavilion, King George V Playing Fields, The Moor	None	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 8	Hawkhurst Station Business Park	None	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 9	Land at Santers Yard, Gills Green Farm	38	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HA 10	Site at Limes Grove	None	Not specified	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there

					are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Benenden Area Policies AL/BE Residential and Employment Site Allocations					
AL/BE 1	Land at Walkhurst Road	12	None	More than 30km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/BE 2	Land adjacent to New Pond Road (known as Uphill)	18-20	None	More than 30km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/BE 3	Feoffee Cottages and land, Walkhurst Road	23-25	None	More than 30km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/BE 4	Land at Benenden Hospital	66-72 (44-50 net new homes)	None	More than 30km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there

					are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Brenchley and Matfield Area Policies AL/BM Residential and Employment Site Allocations					
AL/BM 1	Land between Brenchley Road, Coppers Lane, and Maidstone Road	30-45	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/BM 2	Matfield House orchards and land, The Green	20-30	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/BM 3	Ashes Plantation, Maidstone Road	30-60	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/BM 4	Land at Maidstone Road	11-15	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there

					are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Frittenden Area Policies AL/FR Residential and Employment Site Allocations					
AL/FR 1	Land at Cranbrook Road	25-30	None	More than 32km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Goudhurst Area Policies AL/GO Residential and Employment Site Allocations					
AL/GO 1	Land east of Balcombes Hill and adjacent to Tiddymotts Lane	10-15	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/GO 2	Land at Triggs Farm, Cranbrook Road	12 (11 net new homes)	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

Horsmonden Area Policies AL/HO Residential and Employment Site Allocations					
AL/HO 1	Land adjacent to Furnace Lane and Gibbett Lane	45-55	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HO 2	Land south of Brenchley Road and west of Fromandez Drive	80-100	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/HO 3	Land to the east of Horsmonden	100-150	None	More than 20km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Lamberhurst Area Policies AL/LA Residential and Employment Site Allocations					
AL/LA 1	Land to the west of Spray Hill	25-30	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present.

					We have 'screened in' the overall strategic policies for the different areas.
AL/LA 2	Misty Meadow, Furnace Lane	25-30	None	More than 15km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Pembury Area Policies AL/PE Residential and Employment Site Allocations					
AL/PE 1	Land rear of High Street and west of Chalket Lane	78-80	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PE 2	Land at Hubbles Farm and south of Hastings Road	90	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PE 3	Land north of the A21, south and west of Hastings Road	90	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present.

					We have 'screened in' the overall strategic policies for the different areas.
AL/PE 4	Land at Downingbury Farm, Maidstone Road	25	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PE 5	Land at Sturgeons fronting Henwood Green Road	19	None	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PE 6	Land at Tunbridge Wells Hospital, Pembury and adjacent to Tonbridge Road	None	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/PE 7	Woodsgate Corner	None	Not specified	More than 10km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

Rusthall Area Policies AL/RU 1 **Residential and Employment Site Allocations**					
AL/RU 1	Lifestyle Motor Europe, Langton Road	15	None	More than 7km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Sandhurst Area Policies AL/SA **Residential and Employment Site Allocations**					
AL/SA 1	Land on the south side of Sayville, Rye Road and west of Marsh Quarter Lane	10-15	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/SA 2	Land adjacent to Old Orchard and Stream Pit Lane	10-12	None	More than 25km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
Speldhurst Area Policies AL/SP **Residential and Employment Site Allocations**					
AL/SP 1	Land to the west of Speldhurst Road	15-20	None	More than 7km away from	No HRA implications.

	and south of Ferbies			Ashdown Forest SPA/SAC.	Due to the relatively long distances and few units / little employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/SP 2	Land north of Langton House	None	None	More than 7km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.
AL/SP 3	Land adjacent to Rusthall recreation ground, Southwood Road	None	None	More than 7km away from Ashdown Forest SPA/SAC.	No HRA implications. Due to no additional housing or employment space involved, there are no impact pathways present. We have 'screened in' the overall strategic policies for the different areas.

Appendix 3: Ashdown Forest Air Quality Impact Assessment as relevant to the Borough of Tunbridge Wells Local Plan

Submitted to Client:
Tunbridge Wells Borough Council

Submitted by:
AECOM
Midpoint
Scott House
Alençon Link
Basingstoke
Hampshire
RG21 7PP
United Kingdom

Tunbridge Wells Borough: Ashdown Forest Air Quality Impact Assessment 2018

Traffic-Related Effects on Ashdown Forest SAC

Prepared by: Dr James Riley
Associate Director (Ecology)
Elisha Coutts
Principal Consultant (Air Quality)
Richard Corbin
Senior Consultant (Transport)

Checked by: Dr David Deakin
Technical Director (Air Quality)
Colin Romain
Associate Director (Transport)

Approved by: Max Wade
Technical Director (Ecology)

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Midpoint, Alençon Link, Basingstoke, Hampshire, RG21 7PP, United Kingdom
Telephone: 01256 310 200 Website: http://www.aecom.com

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Contents

1 Introduction

1.1.1 Ashdown Forest is an extensive area of common land lying between East Grinstead and Crowborough entirely within Wealden District. The soils are derived from the predominantly sandy Hastings Beds. It is one of the largest single continuous blocks of heath, semi-natural woodland and valley bog in south-east England, and it supports several uncommon plants, a rich invertebrate fauna, and important populations of heath and woodland birds. It is both a Special Area of Conservation (SAC) and Special Protection Area (SPA)

1.1.2 The SPA is designated for its populations of breeding Dartford Warbler *Sylvia undata* and Nightjar *Caprimulgus europaeus*. The SAC is designated for its Annex I habitats, namely Northern Atlantic wet heaths with *Erica tetralix* and European dry heaths; as well as for its Annex II species, namely Great Crested Newts.

1.1.3 Exhaust emissions from vehicles are capable of adversely affecting the protected heathland found in Ashdown Forest. Accordingly, in September 2017 AECOM undertook an air quality impact assessment for Lewes District Council and South Downs National Park Authority, which modelled forecast traffic growth on key roads within 200m of Ashdown Forest SAC over the period 2017 to 2033, including that expected due to the quantum and distribution of growth in the adopted Lewes Joint Core Strategy (as it relates to Lewes District outside the South Downs National Park) and the South Downs Local Plan. Tunbridge Wells Borough Council subsequently commissioned AECOM to use the same traffic and air quality models to undertake an analysis for the emerging Tunbridge Wells Local Plan. Sevenoaks District Council also commissioned an analysis.

1.1.4 The methodology used in this analysis is compliant with the requirement of the Conservation of Habitats and Species Regulations 2017 (as amended) to consider whether an adverse effect on the integrity of a European site will result either alone, or in combination with other plans and projects.

1.1.5 In addition to determining the total cumulative 'in combination' effect on roadside air quality at Ashdown Forest SAC, the calculations presented in this analysis also consider the contribution of Tunbridge Wells Local Plan to that 'in combination' effect. This is necessary to determine whether the contribution is ecologically material and thus whether mitigation of that contribution is required.

2 Methodology

2.1.1 Vehicle exhaust emissions generally only have a local effect within a narrow band along the roadside, within 200m of the centreline of the road. Beyond 200m emissions are considered to have dispersed sufficiently that atmospheric concentrations are essentially background levels. Within 200m, the rate of decline is steeply curved rather than linear. In other words concentrations will decline rapidly as one begins to move away from the roadside, slackening to a more gradual decline over the rest of the distance up to 200m. This means that the impacts are always worse at the side of key roads, so by focussing there a worst-case assessment is undertaken using long road lengths (800m to 4,000m).

2.1.2 Traffic on every road will make a very small contribution to the 'background' air pollution across a large geographic area, as well as its much greater contribution to changes in roadside air quality. AECOM have represented this background component through the use of background pollutant maps in line with Defra guidance. However, these emissions can disperse hundreds of kilometres from the source. As such, the incremental contribution that all vehicles make to background NOx and nitrogen deposition is properly considered at the national and international scale and is being addressed through national and international initiatives such as improved emissions technology, the government's Clean Air Strategy etc. AECOM takes the view that the purpose of a plan-level HRA is to determine whether there is a significantly elevated local effect which therefore needs addressing at the local level above and beyond the national/international measures that are being implemented.

2.1.3 There are two measures of particular relevance regarding air quality impacts from vehicle exhausts and which are modelled using standard forecasting. The first is the concentration of oxides of nitrogen (known as NOx) in the atmosphere. In extreme cases[1] NOx can be directly toxic to vegetation but its main importance is as a source of nitrogen, which is then deposited on adjacent habitats[2]. The guideline atmospheric concentration advocated by Government for the protection of vegetation is 30 micrograms per cubic metre (μgm^{-3}), known as the Critical Level, as this concentration relates to the growth effects of nitrogen derived from NOx on vegetation. There is also a 24hr critical level available but the Centre for Ecology & Hydrology among others have noted that the '*UN/ECE Working Group on Effects strongly recommended the use of the annual mean value, as the long-term effects of NOx are thought to be more significant than the short-term effects*'[3] and Natural England have previously advised that the annual mean should be used.

2.1.4 The second important metric is a measure of the rate of the resulting nitrogen deposition. The addition of nitrogen is a form of fertilization, which can have a negative effect on heathland and other habitats over time by encouraging more competitive plant species that can force out the less competitive species that are more characteristic. Unlike NOx in atmosphere, the nitrogen deposition rate below which we are confident effects would not arise is different for each habitat. The rate (known as the Critical Load) is provided on the UK Air Pollution Information System (APIS) website (www.apis.ac.uk) and is expressed as a quantity (kilograms) of nitrogen over a given area (hectare) per year ($kgNha^{-1}yr^{-1}$).

[1] Figure 2 of WHO (2000) indicates that biochemical or physiological effects have been demonstrated in vascular plants from exposure to annual average concentrations of more than 100 $\mu g/m^3$. Das et al (2011) recorded evidence of chlorophyll changes in lichens correlated with NOx at very high concentrations (over 260 $\mu g/m^3$). The modelling discussed does not forecast concentrations close to these levels.

References: Das K, Dey U, Bhaumik R, Datta JK and Mondal NK. 2011. A comparative study of lichen biochemistry and air pollution status of urban, semi-urban and industrial area of Hooghly and Burdwan district, West Bengal. Journal of Stress Physiology & Biochemistry Vol 7, No. 4 pp311-323

WHO 2000 Air Quality Guidelines for Europe, WHO Regional Publications, European Series No. 91 ISBN 92 890 1358 3

[2] For example, the APIS website states that *'It is likely that the strongest effect of emissions of nitrogen oxides across the UK is through their contribution to total nitrogen deposition…'*

[3] Sutton MA, Howard CM, Erisman JW, Billen G, Bleeker A, Grennfelt P, van Grinsven H, Grizzetti B. 2013. The European Nitrogen Assessment: Sources, Effects and Policy Perspectives. Page 414. Cambridge University Press. 664pp. ISBN-10: 1107006120

June 2011. Manual on Methodologies and Criteria for Modelling and Mapping Critical Loads & Levels and Air Pollution Effects, Risks and Trends. Chapter 3: Mapping Critical Levels for Vegetation

2.1.5 A third pollutant included in this assessment is ammonia emissions from traffic. In ecological terms ammonia differs from NOx in that it is not only a source of nitrogen but can also be directly toxic to vegetation in relatively low concentrations. Using the process set out in Design Manual for Roads and Bridges, ammonia emissions for traffic are not normally calculated. However, for completeness, and in response to representations made by Wealden District Council, they have been included in this iteration of AECOM's modelling, both in terms of atmospheric concentrations and as a source of nitrogen.

2.1.6 Finally, and for completeness, rates of acid deposition have also been calculated. Acid deposition derives from both sulphur and nitrogen. It is expressed in terms of kiloequivalents (keq) per hectare per year. The thresholds against which acid deposition is assessed are referred to as the Critical Load Function. The principle is similar to that for a nitrogen deposition Critical Load but it is calculated very differently.

2.2 Traffic modelling

2.2.1 A series of road links within 200m of Ashdown Forest Special Area of Conservation (SAC) were identified for investigation. These links were chosen as they are all representative points on the busiest roads through the SAC and are also the roads likely to experience the greatest increase in flows over the period to 2033. As such, these are the roads where an air quality effect due to additional traffic growth is most likely to be observed.

2.2.2 Traffic data were generated for each of these links for three scenarios, described in this report as:

- Base Case
- Do Nothing (DN)
- Do Something (DS)

2.2.3 The Base Case uses measured flows, percentage Heavy Duty Vehicles (HDVs) and average vehicle speeds on the relevant links, as provided by Wealden District Council (WDC). The Wealden traffic counts were for 2014 (either undertaken in that year, or adjusted to that year). For the purposes of consistency with wider traffic modelling used to inform the Habitat Regulations Assessment (HRA) of the South Downs Local Plan, which use measured traffic counts from 2017, these data were 'grown' by AECOM transport planners to 2017. Since the emerging Sevenoaks Local Plan is backdated to 2015, the emerging South Downs Local Plan and emerging Tunbridge Wells Local Plan to 2014 and the Joint Core Strategy to 2010, this means that housing and employment development that has been delivered and occupied prior to 2017 is allowed for in the measured baseline flows. However, this is also true for all other local authorities, so there is no disparity in treatment of local authorities in the modelling. Development that has been consented but not actually completed/occupied does not appear in the baseline flows.

2.2.4 The Do Nothing scenario is the term used in this report to describe the future flows on the same roads at the end of the Tunbridge Wells Local Plan period (2033), without consideration of the role of the Tunbridge Wells Local Plan, South Downs Local Plan, Sevenoaks Local Plan or Lewes Joint Core Strategy. This therefore presents the expected contribution of other plans and projects to flows by 2033, outside these four authorities. The end of the Local Plan period has been selected for the future scenario as this is the point at which the total emissions due to Tunbridge Wells Local Plan/Sevenoaks Local Plan/South Downs Local Plan/JCS traffic will be at their greatest. The scenario is calculated by extrapolating the observed traffic data. The Do Nothing scenario adds all traffic growth from 2017 to 2033 that will result in additional journeys on the modelled road links.

2.2.5 For the purposes of 'in combination' assessment (i.e. incorporating growth into the model due to multiple Local Plans and Core Strategies for surrounding authorities) it was decided that modelling the adopted Local Plans directly would not reflect actual housing growth in those authorities between 2017 and 2033 because:

1. Since most commence in 2006 they include a large number of allocations that are historic (i.e. already delivered and occupied) and these are already part of the measured base flows.
2. Adopted plans for these authorities may not accurately reflect growth over the period 2017 to 2033 because, with the exception of Lewes Joint Core Strategy, all the adopted plans for the boroughs/districts immediately around Ashdown Forest SAC finish seven years before the South Downs Local Plan, which runs to 2033 whereas the adopted plans (other than the

Lewes JCS) all run to 2026 or 2027. This means that there will be 6-7 years of growth which is not covered by most adopted plans.

2.2.6 Expected development in these authorities over the period 2017 to 2033 was therefore included in the model by using the National Trip End Model Presentation Program (TEMPRO). TEMPRO produces a growth factor that is applied to the measured flows. It is based on data for each local authority district in the UK (distributed by statistical Middle Layer Super Output Area[4]) regarding future changes in population, households, workforce and employment (in addition to data such as car ownership) but is not limited to a given period of time. Traffic growth factors are utilised for the statistical Middle Layer Super Output Areas (MSOAs) within which the modelled links are located. TEMPRO has the advantages of being forecastable to 2033 and beyond, using growth assumptions that are regularly updated and distributed to the level of Middle-Layer Super Output Area (of which there are 21 in Wealden District alone) and of being an industry standard database tool across England meaning that modelling exercises that use TEMPRO will have a high degree of consistency.

2.2.7 The other authorities immediately surrounding Ashdown Forest are those in which development is most likely to influence annual average daily traffic flows through the SAC. For those authorities (Wealden, Mid-Sussex and Tandridge) scrutiny of the relevant adopted Local Plans or Core Strategies and the associated housing growth rates in TEMPRO resulted in the conclusion that the adopted plans (and TEMPRO) may currently underestimate growth to 2033 and this could in turn materially affect the estimation of 2033 AADT flows on the relevant roads. The decision was therefore made to raise the growth allowances for these authorities to reflect their most recent Objectively Assessed Need (OAN) at time of traffic modelling[5]. The OAN figure was derived from published information released by the Councils themselves or (in the case of Mid-Sussex) by their Local Plan inspector. Although housing growth rates were adjusted upwards, expected broad housing distributions were not altered. Employment growth assumptions in TEMPRO for these authorities were not adjusted. The authorities and their quanta and broad distributions of housing growth as considered in our analysis are as follows:

- **Wealden** –The most recent Objectively Assessed Need for Wealden is 832 dwellings per annum. Since this is a substantial difference from that in the published Core Strategy the higher rate was used in the model.

- **Mid-Sussex** – The adopted Local Plan (2014 – 2031) plans for 16,390 dwellings. During the plan's Examination in Public, the Inspector identified in February 2017 that he was minded to increase the growth rate from 800 per annum to 1,026 per annum. Although in the adopted Local Plan this has been amended to a stepped trajectory of 876 dwellings from 2014/15 until 2023/24 and thereafter, 1,090 dwellings per annum, the 1,026 figure has been used in this analysis to be precautionary.

- **Tandridge** –The most recent Objectively Assessed Need for Tandridge is 470 dwellings per annum. The submitted Local Plan states that Tandridge expects to be able to deliver 303 homes per year, including a Garden Community in South Godstone. However, the higher rate was used in the model as a precaution.

2.2.8 The Do Nothing (and thus Do Something) Scenario is therefore intentionally precautionary and allows for growth over the period to 2033 beyond that in adopted Local Plans in those authorities immediately surrounding Ashdown Forest SAC. Both scenarios assume a consistent rate of housing delivery over the plan period. A Statement of Common Ground was produced between the various authorities around Ashdown Forest and included in that SoCG were detailed

[4] Middle Layer Super Output Areas are a geographical hierarchy designed to improve the reporting of small area statistics in England and Wales. They are a series of areas each of which has a minimum population of 5,000 residents. They have a mean population of 7,200 residents.

[5] Note that the Objectively Assessed Need figures in the Do Nothing component of the model date from June 2017. For Wealden District this broadly matches the growth rates that authority has used in its own modelling. In September 2017 the Government released a new Objectively Assessed Housing Need for each local authority. Other than Tunbridge Wells and Sevenoaks (whose elevated OAN is taken into account in this updated modelling), only 1 of the relevant authorities has a higher OAN using the Government method than the figure used in the previous Do Nothing modelling: Tandridge's OAN increases from 470 to 645. On the other hand, two of the authorities modelled in Do Nothing have OAN's lower than those used in the model (Wealden and Mid-Sussex). Therefore, given that the Government method is still out to consultation, and for consistency with the previous Lewes/South Downs work, the housing growth rates for Tandridge, Mid-Sussex and Wealden have been left as per the South Downs/Lewes model.

proposals for future modelling regarding traffic numbers that should be assumed. However, the traffic modelling used in this report was undertaken before that aspect of the agreement was devised. Therefore, this modelling may overestimate growth rates in some authorities, particularly Mid-Sussex District.

2.2.9 TEMPRO provides a consistent and standard approach to traffic forecasting when a large number of sources (e.g. local authority areas) are involved. However, a more nuanced forecast can be obtained by creating a bespoke model that manually distributes trips according to journey to work data. This approach provides a better understanding of where traffic associated with the proposed Local Plan development is likely to be most concentrated. Tunbridge Wells Borough Council therefore commissioned AECOM to extend the bespoke model already created for Lewes District, Sevenoaks District Council and South Downs National Park to cover Tunbridge Wells Borough. At this point, Tunbridge Wells Borough Council are at an early stage of plan development and therefore do not have definitive site allocations. However, they do have an Objectively Assessed Need and provided guidance on an appropriate broad distribution of development across the Borough, which was broken down into a number of sectors for traffic modelling purposes. AECOM was asked to model a housing delivery rate of 790 dwellings per annum in Tunbridge Wells Borough, including a possible 5,500 dwellings new settlement along the A21 between Pembury and Kippings Cross[6].

2.2.10 In order to update the bespoke AECOM model, growth due to Tunbridge Wells Local Plan was essentially moved from the Do Nothing scenario (forecast using TEMPRO) to the Do Something scenario (forecast using the bespoke AECOM model). In order to minimise modelling artefacts that can be caused through moving growth between scenarios in new model runs, growth expected due to the JCS, Sevenoaks Local Plan and South Downs National Park Local Plan between 2017 and 2033 was left in the Do Something scenario. The 2033 Do Something scenario therefore includes bespoke modelling for Lewes District, Sevenoaks District, South Downs National Park and Tunbridge Wells Borough, although the relative contribution of Tunbridge Wells Borough to that Do Something forecast is identifiable.

2.2.11 The Do Something scenario reflects the combined role of the Tunbridge Wells Local Plan, Sevenoaks Local Plan, South Downs Local Plan, Lewes Joint Core Strategy and subsidiary Neighbourhood Plans by 2033, in addition to growth in other authorities. Detailed modelling of Local Plan/Neighbourhood Plan growth locations undertaken by the AECOM transport planning team was added to the adjusted TEMPRO growth for all other authorities. To build the Local Plan model, housing and employment sites in Tunbridge Wells, Sevenoaks District, Lewes District and the National Park (allocations in the Local Plan, Joint Core Strategy, allocations in Neighbourhood Plans, unimplemented planning permissions and windfall) were geographically assigned to 'distribution groups' across Tunbridge Wells Borough, Sevenoaks District, the National Park and Lewes District using GIS software. The distribution of each of these groups was calculated using Census 2011 journey to work data, and the trips associated with each distribution group then manually assigned across the network.

2.2.12 The 'in combination' growth scenario is therefore the Do Something flows, as these include existing traffic, all future journeys arising from within Tunbridge Wells Borough, the South Downs National Park, Sevenoaks District and Lewes District due to the Local Plan, Joint Core Strategy or Neighbourhood Plan proposals (from AECOM's model), and future traffic arising from all other authorities (from TEMPRO, adjusted for expected higher growth rates in some authorities). The difference between the Do Something scenario and the Do Nothing scenario illustrates the role of the Tunbridge Wells Local Plan, Sevenoaks Local Plan, JCS and South Downs Local Plan (and Neighbourhood Plans) in changing future flows compared to what would be expected without the Local Plan/Joint Core Strategy proposals.

2.3 Air quality calculations

2.3.1 Using these scenarios and information on total traffic flow, average vehicle speeds and percentage Heavy Duty Vehicles (which influence the emissions profile), AECOM air quality specialists calculated expected NOx concentrations, nitrogen deposition rates, ammonia concentrations and acid deposition rates at receptor points along each modelled road link. The predictions for NOx and nitrogen deposition are based on the assessment methodology presented in Annex F of the Design Manual for Roads and Bridges (DMRB), Volume 11, Section

[6] This settlement and its location are not definitive since the plan is at an early stage of development. However, it was modelled as a worst-case since placing the new settlement further to the east of the borough would likely much reduce journey to work flows on the A26 through Ashdown Forest compared to that included in the AECOM model.

3, Part 1 (HA207/07)[7] for the assessment of impacts on sensitive designated ecosystems due to highways works[8]. Background data for NOx and NO_2 were sourced from the Department of Environment, Food and Rural Affairs (Defra) background maps[9]. Background data for ammonia was sourced from monitoring undertaken at Ashdown Forest[10].

2.3.2 The DMRB does not provide a method for forecasting ammonia emissions from traffic. A method has therefore been devised for this modelling. The methodology for this is presented in detail in Appendix D. The research undertaken in Ashdown Forest indicates that beyond 20m from the roadside ammonia contributions are expected to tend towards background and so the contribution of road sources would be limited beyond this point.

2.3.3 Given that the assessment year (2033) is a considerable distance into the future, it is important for the air quality calculations to take account of improvements in background air quality and vehicle emissions that are expected nationally over the plan period. Making an allowance for a realistic improvement in background concentrations and deposition rates is in line with the Institute of Air Quality Management (IAQM) position[11] as well as that of central government[12]. Background nitrogen deposition rates were sourced from the Air Pollution Information System (APIS) website[13]. Although in recent years improvements have not kept pace with predictions, the general long-term trend for NOx has been one of improvement (particularly since 1990) despite an increase in vehicles on the roads[14]. Examination of background nitrogen dioxide (NO_2) monitoring sites in the region within which Ashdown Forest is situated show a general reduction since 1991. While some background sites in the region show a more static trend since c.2012 (notably Lullington Heath near Eastbourne) this is likely to partially result from differences in climatic/meteorological conditions from year to year, rather than increases in nearby traffic flows as these latter would not be expected to significantly influence an area relatively remote from significant roads. There has also been a long-term improving trend for nitrogen deposition, although the rate of improvement has been much lower than for NOx[15]. According to Plantlife, '*There is an overall decreasing trend in the percentage of UK habitats affected by nitrogen deposition, with levels exceeding critical loads dropping from 75% of UK sensitive habitats in 1996, to 62.5% in 2011-2013'*[16]. The trend has also been observed and documented by the European Union and has been recently used by them to develop a tool to monetise the biodiversity benefit of such improvements[17]. These results are the (inter)national manifestation of a trend which can also be discerned locally as is shown for example in the graphs below.

[7] Design Manual for Roads and Bridges, HA207/07, Highways Agency

[8] DMRB advocates a nitrogen deposition velocity of 0.1 cms^{-1} for non-woodland vegetation and that velocity is therefore used in AECOMs modelling.

[9] Air Quality Archive Background Maps. Available from: http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html

[10] Ashdown Forest SAC, Air Quality Monitoring and Modelling, October 2017

[11] http://www.iaqm.co.uk/text/position_statements/vehicle_NOx_emission_factors.pdf

[12] For example, The UK Government's recent national Air Quality Plan also shows expected improvements over the relevant time period (up to 2030) https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017

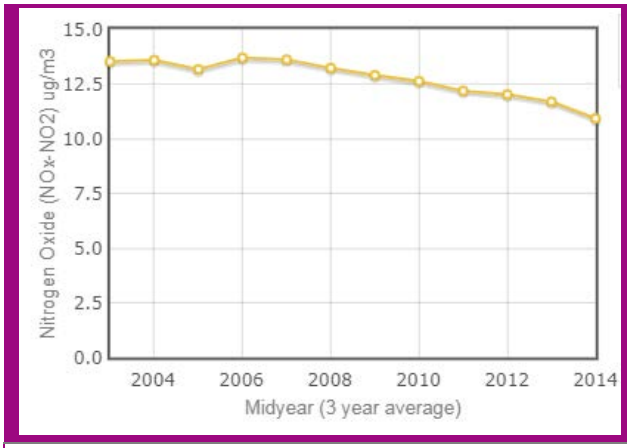
[13] Air Pollution Information System (APIS) www.apis.ac.uk

[14] Emissions of nitrogen oxides fell by 72% between 1970 and 2017. Source: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/778483/Emissions_of_air_pollutants_1990_2017.pdf [accessed 24/04/19]

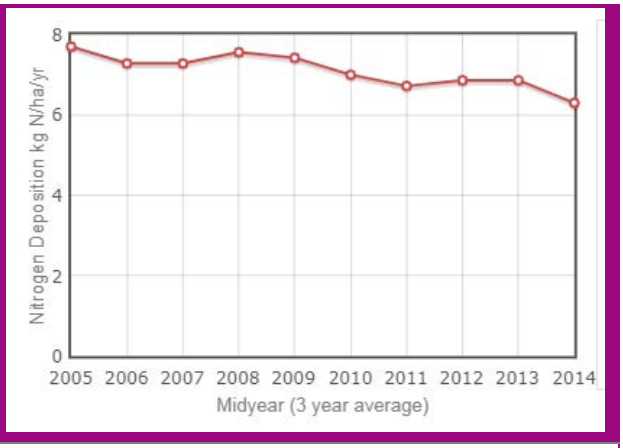
[15] Total nitrogen deposition (i.e. taking account of both reduced and oxidised nitrogen, ammonia and NOx) decreased by 13% between 1988 and 2010. This is an improvement of 0.59% per annum on average.

[16] https://www.plantlife.org.uk/application/files/1614/9086/5868/We_need_to_talk_Nitrogen_webpdf2.pdf

[17] Jones, L., Milne, A., Hall, J., Mills, G., Provins, A. and Christie, M. (2018). Valuing Improvements in Biodiversity Due to Controls on Atmospheric Nitrogen Pollution. Ecological Economics, 152: 358-366. http://ec.europa.eu/environment/integration/research/newsalert/pdf/monetising_biodiversity_benefit_of_reducing_nitrogen_pollution_in_air_522na2_en.pdf



Graph of the trend in average NOx concentrations for the 1km grid square within which Ashdown Forest SAC is situated, from 2005 to 2014 as presented on www.apis.ac.uk. According to APIS background NOx concentrations at the SAC reduced by 2.6 μgm^{-3} over this 9 year period, notwithstanding traffic growth over that same period.



Graph of the trend in oxidised nitrogen deposition to short vegetation (as opposed to forest) for the 5km grid square within which Ashdown Forest SAC is situated from 2005 to 2014 as presented on www.apis.ac.uk. According to APIS oxidised nitrogen deposition at the SAC reduced by 2kgN/ha/yr over this 9 year period, notwithstanding traffic growth over that same period. Total nitrogen deposition (i.e. oxidised nitrogen from NOx and reduced nitrogen from ammonia) remained relatively stable within the same 5km grid square, but this is likely to be mainly as a result of non-road sources of nitrogen within the wider area, principally livestock and fertiliser. The effects of improving vehicle emissions are felt most strongly close to the road and the trend in total nitrogen is close to the road is thus more likely to reflect the improving trend in oxidised nitrogen across the grid square rather than the more static trend for total nitrogen.

2.3.4 The reductions in NOx and nitrogen deposition occurred notwithstanding increased traffic growth over the same time period and is most likely attributable to improvements in emissions technology in the vehicle fleet (i.e. motorists replacing more polluting vehicles associated with earlier Euro standards with less polluting vehicles associated with more recent Euro standards). This improving trend can be expected to continue, and indeed steepen, as drivers continue to replace older cars with newer vehicles and as further improvements in vehicle emissions technology are introduced. For example, the latest (Euro6/VI) emissions standard only became mandatory in 2014 (for heavy duty vehicles) and 2015 (for cars) and the effects are not therefore visible in the data available from APIS because relatively few people will have been driving vehicles compliant with that standard as early as 2014. In contrast, far more drivers can be expected to be using Euro 6 compliant vehicles by 2033 since vehicles that are not compliant with Euro 6 ceased manufacture in 2015.

2.3.5 Both NOx concentrations and the component of deposition associated with combustion processes such as traffic (oxidised nitrogen) can be expected to continue to fall over the long time period (20 years) covered by the Local Plan even if there may be short periods where concentrations and deposition rates fluctuate. This is because cleaner vehicles are entering the vehicle fleet, and are being tested using more stringent procedures as ultra-low emission vehicles increase in numbers. The assessment has selected 2023 as an approximate midpoint year between the baseline situation and future situation to account for any uncertainty associated with the rate at which full projected improvements may take place. Not to make *any* allowance for these improvements would result in increased emissions of oxides of nitrogen and nitrogen dioxide concentration over the plan year period as an increased number of vehicles is expected on the roads. This is not expected to occur as can be seen from previous long term trends in the UK, which at worst show slowing of improvements over extended periods, not worsening. Historical records (e.g. Defra monitoring trends) show that as increased vehicles enter the fleet that these increases are offset by the improvements in the emissions of the newer vehicles and the removal of older vehicles. To avoid showing a worsening between the current and future situation some improvements need to be considered as applied by AECOM.

2.3.6 In 2018 the Court of Justice of the European Union (CJEU) ruled in cases C-293/17 and C-294/17 (often dubbed the Dutch Nitrogen cases). One aspect of that ruling concerned the extent to which autonomous measures (i.e. improvements in baseline nitrogen deposition that are not attributable to the Local Plan) can be taken into account in appropriate assessment, the CJEU ruled that it *was* legally compliant to take such autonomous measures into account provided the benefits were not 'uncertain' (paras. 130&132). Note that previous case law on the interpretation of the Habitats Directive has clarified that 'certain' does not mean absolute certainty but '*where*

no reasonable scientific doubt remains'[18] [emphasis added]. In other words, a) any forecast must be scientifically reasonable and b) there must be no alternative outcome that is more scientifically reasonable (or if there is, the difference must not be sufficiently great to alter the conclusion regarding effects on site integrity).

2.3.7 In understanding the ruling it is essential to understand the details of the cases. The proposed measures (reducing ammonia emissions from stables, introduce low-emission fertilisers, introduce 'feed measures', introduce management measures and make European sites more 'resilient' to nitrogen deposition) were intended to address ammonia emissions from the national agriculture sector, a particularly challenging sector to mitigate and for which there is no long-term improving trend or evidence of effective mitigation of agricultural emissions comparable to that which exists for NOx emissions from traffic. The reduction in resulting nitrogen deposition postulated by the Netherlands government (a reduction of 6.4 kilotonnes per annum by 2020) was also very ambitious given a five year timetable, the novel nature of the measures and the fact that some of the measures had still not been introduced at the time the ruling was handed down (2018). In other words, there was a question over not just the precise magnitude of the benefits but whether any benefits would be realised within just five years such that the level of uncertainty around those measures and forecasts was substantial. This was acknowledged by the Netherlands government which included provisions to monitor the outcome of the measures and introduce further ones if the improvement in nitrogen deposition was less than forecast. It is in that context that the CJEU stated that the autonomous measures set out by the Netherlands government had "*not yet been taken or have not yielded any results, so that their effects are still uncertain*" (para. 127 of the ruling) and thus that "*The appropriate assessment of the implications of a plan or project for the sites concerned is not to take into account the future benefits of such 'measures'* [i.e. those in the PAS] *if those benefits are uncertain, inter alia* [i.e. among other things] *because the procedures needed to accomplish them have not yet been carried out or because the level of scientific knowledge does not allow them to be identified or quantified with certainty*" (para. 130).

2.3.8 In contrast, the forecasts used in this report do have the requisite level of certainty (noting this does not equate to a requirement for absolute certainty which the courts have recognised would be impossible for any forecast). This is because a) to a large extent they build upon established historic trends in NOx and oxidised nitrogen deposition and b) they are based on a very cautious use of evidenced central government forecasts associated with uptake of technology that has either already been introduced or is widely expected within the professional community to be effective:

- With regard to the improving baseline (i.e. the fact that nitrogen deposition close to the road is forecast to reduce without traffic growth, rather than increasing or remaining static), the aforementioned evidence on APIS indicates the rate of background oxidised nitrogen deposition (i.e. within the 5km grid square in which Ashdown Forest is situated) has improved by an annual average of 0.22 kgN/ha/yr between 2005 and 2014. The annual average allowance made for continued improvements in baseline (not just background) deposition in AECOM's modelling in the absence of any further traffic growth is notably less than this amount (a maximum of 0.17 kgN/ha/yr at the roadside of the A26 and less than this on other links and at greater distances). While total nitrogen deposition within the grid square remained roughly static between 2004-2015, the trend close to the road is likely to more closely reflect that for oxidised nitrogen because this is the zone within which the benefits of improved vehicle emissions can be expected to have the greatest effect, causing NOx concentrations and oxidised nitrogen deposition rates to fall considerably and thus reduce total deposition rates. In contrast, the benefit of improvements in roadside emissions of NOx will be much less felt at locations remote from the road and thus the resulting reduction in oxidised nitrogen is less likely to result in a reduction in total nitrogen deposition.
- When it comes to forecasting the emissions of additional traffic, it would overestimate those emissions to assume that by 2033 the emission factors will be no different to those in 2017; to make such an assumption would be to fail to take account of the expected continued uptake of Euro 6 compliant vehicles between 2017 and 2033. For example, the latest (Euro 6/VI) emissions standard only became mandatory in 2014 (for heavy duty vehicles) and 2015 (for cars) and the effects will not therefore be visible in the data available from APIS because relatively few people will have been driving vehicles

[18] Case C-239/04 Commission v Portugal [2006] ECR 10183, para. 24; Holohan et al vs. An Bord Pleanála (C-461/17), para. 33

compliant with that standard as early as 2014. Far more drivers can be expected to be using Euro 6 compliant vehicles by the end of the Local Plan period (2034). To account for any risk of over-optimism in current government forecasts of emission factors, the factors for 2023 are applied to 2033 traffic flows thus holding the forecasts back c. 10 years compared to Defra projections.

2.3.9 The current DMRB guidance for ecological assessment suggests reducing nitrogen deposition rates by 2% each year between the base year and assessment year. However, in order to add a further layer of caution regarding the rate with which projected future vehicle emission rates and background pollution concentrations are improving, the assumption has been made in this assessment that not all improvements projected by DMRB (for nitrogen deposition) or Defra (for NOx concentrations) will occur. With regards to background ammonia concentrations, there is greater uncertainty associated with rates of improvement over time, so background concentrations have been kept the same through all assessment years.

2.3.10 Therefore, the air quality calculations assume that conditions in 2023 (an approximate midpoint between the base year and the year of assessment) are representative of conditions in 2033 (the year of assessment). The effect on the 2033 data is equivalent to assuming a 0.75% per annum improvement in background NOx concentrations and nitrogen deposition rates between 2017 and 2033. The approach of not assuming all projected improvements occur (known as Gap Analysis) is accepted within the professional air quality community and accounts for known recent improvements in vehicle technologies (new standard Euro 6/VI vehicles), whilst excluding the more distant and therefore more uncertain projections on the evolution of the vehicle fleet. No discussion is made in this analysis of the UK Government's recent decision to ban the sale of new petrol and diesel vehicles from 2040 since it would not affect the time period under consideration, but that announcement illustrates the general long-term direction of travel for roadside air quality in the UK and underlines that allowing for improvements in both vehicle emissions factors and background rates of deposition over long timescales is both appropriate and realistic.

2.3.11 Annual mean concentrations of NOx were calculated at varied intervals back from each road link up to a maximum of 200m, with the closest distance being the closest point of the designated site to the road. Predictions were made using the latest version of ADMS-Roads using emission rates derived from the Defra Emission Factor Toolkit (version 8.0.1) which utilises traffic data in the form of 24-hour Annual Average Daily Traffic (AADT), %HDV and average speed. The tables in Appendix A present the calculated changes in NOx concentration, nitrogen deposition and acid deposition 'in combination' (i.e. the difference between Do Something and the 2017 Base case) and the role played by Local Plan/Joint Core Strategy development compared to that which would occur in any case over the plan period (i.e. the difference between Do Something and Do Nothing).

Model verification

2.3.12 To assist in the verification of the AECOM model (produced December 2017) AECOM were provided with a partially redacted version of a report prepared for Wealden District Council by Air Quality Consultants ('AQC') (Ashdown Forest SAC, Air Quality Monitoring and Modelling, December 2017). This report provided grid references, distance to road (m) and NO2/NOX concentrations for a number of measurement locations. The measurement height of these diffusion tubes was not recorded in the AQC report and this has been taken as 2m to match the stated height of the Ammonia ALPHA samplers, which are also included within this report.

2.3.13 Using these diffusion tube data AECOM was able to model the latest version of the Ashdown Forest model (December 2017) which uses 2017 backgrounds based on the base year 2015 and the NO_x to NO_2 Calculator v6.1 for 2017 using All non-urban UK traffic for the local authority of Wealden.

2.3.14 This verification process calculated a model adjustment factor of 2.73[19] with an RMSE of 4.2. The RMSE should ideally be within 10% of the relevant air quality criterion, but is acceptable where it is within 25% of the relevant air quality criterion, as is the case here[20].

[19] This adjustment factor (2.73) is higher than the main factors produced by AQC in their report. The modelling approach taken by AQC includes canyoning effects, time-varying emission profiles, CURED emission rates, terrain data and incorporates the effects of road gradient on NO_X emissions all of which may increase concentrations within close proximity to the road source where the verification diffusion tubes are located. It is also noted that the tube height of 2m is an assumption which would affect the overall factor if the tubes are at a different height.

[20] Defra (2016), Local Air Quality Management Technical Guidance (TG16)

3 Results

3.1 Traffic modelling

3.1.1 The flows forecast by 2033, and how these differ between Do Nothing (without the Local Plans/JCS) and Do Something (*including* the Sevenoaks, Tunbridge Wells and South Downs Local Plans and the Lewes JCS) are presented overleaf.

Table 1. Traffic flow data used in the air quality modelling

A	B	C	D	E	F	G	H
Link ID	Link Description	Wealden Model Base 2014 AADT	2017 Base AADT	2033 DN AADT (traffic growth excluding Sevenoaks, Lewes, South Downs and Tunbridge Wells Local Plans)	2033 DS AADT (traffic growth including Sevenoaks, Lewes, South Downs and Tunbridge Wells Local Plans)	Difference between 2017 Base and DS (i.e. net traffic growth from 2017 to 2033)	Difference between DS and DN
6	A22 Royal Ashdown Forest Golf Course	11,480	11,509	12,887	13,167	1,658	280
33	A22 Wych Cross	12,340	12,371	13,852	14,009	1,638	157
34	A22 Nutley	11,360	11,389	12,752	12,909	1,520	157
37	A275 Wych Cross	4,530	4,542	5,085	5,408	866	323
38	A26 Poundgate	16,150	16,191	18,129	19,205	3,014	1,076

Table 2. Breakdown of Do Something scenario to show the relative contribution of Tunbridge Wells Borough to the change in flows between 2017 and 2033, expressed as AADT and as percentage of the difference between DS and DN

Link ID	Tunbridge Wells Local Plan (AADT)
6	0
33	0
34	0
37	69 AADT (21%)
38	542 AADT (50%)

The percentages in Table 2 can be applied to the difference between DS and DN in Appendix 1 to determine the relative contribution of Tunbridge Wells Local Plan to ammonia, NOx, nitrogen deposition and acid deposition.

3.1.2 All links are forecast to experience an increase in traffic flows between 2017 and 2033 when all expected traffic growth sources (including the Tunbridge Wells Local Plan, Sevenoaks Local Plan, South Downs Local Plan, and Lewes JCS) are taken into account (Column G of Table 1).

3.1.3 It can be seen from Table 2 that, on most links, housing and employment delivery in Tunbridge Wells Borough is forecast to make little to no contribution in terms of Annual Average Daily Traffic, essentially because most roads through Ashdown Forest SAC do not constitute meaningful journey to work routes for residents of the Borough based on existing census data. The exception is the A26 at Poundgate where the model forecasts that the Tunbridge Wells Local Plan will be responsible for adding approximately 500 AADT to the total flows by 2033. Note that this traffic growth can be expected to occur incrementally over the plan period, matching the housing delivery trajectory.

3.2 Air quality calculations

Ammonia

3.2.1 Ammonia concentrations in atmosphere are discussed in this section. Ammonia as a source of nitrogen is discussed in the following section on nitrogen deposition.

3.2.2 There are two critical levels for ammonia in atmosphere, which represent the differing sensitivities of lower plants (lichens and mosses) and higher plants (all other vegetation) to the gas. The difference is because higher plants have a protective cuticle which makes them less vulnerable to the gas than lower plants. A judgment must be made over which is more appropriate in a given location. The lower critical level (1 μm^{-3}) is only appropriate to use in an HRA where the affected area within the modelled transect has a high lichen/bryophyte interest that is relevant to the integrity of the SAC habitat. Otherwise the higher critical level (3 μm^{-3}) is more appropriate. If concentrations are forecast to be below the critical level within the relevant part of the SAC then there is good reason to conclude no adverse effect will arise.

3.2.3 Heathlands can support a diverse terricolous lichen flora provided the sward is sufficiently open for colonisation. All heathland SACs therefore automatically have the lower critical level assigned to them on the UK Air Pollution Information System (www.apis.ac.uk) and APIS makes it clear that this is due to an *a priori* assumption of lichen/bryophyte interest somewhere in the site. However, APIS assigns critical levels to SACs fairly generically rather than basing the decision on location specific data. In practice there are many areas of heathland that do not support a diverse lichen flora, since management is very significant in influencing lichen diversity and abundance and closed dense swards are much less likely to support a terricolous lichen community than more open swards. In such cases the higher critical level of 3 μm^{-3} is a more appropriate reference threshold.

3.2.4 Some parts of Ashdown Forest SAC do support a diverse terricolous heathland lichen assemblage. However, Wealden District Council has produced habitat maps using Earth Observation (satellite imagery and airborne systems) and commissioned site vegetation surveys[21]. None of these data indicate the presence of a significant assemblage of terricolous heathland lichens adjacent to any of the modelled roads[22] and such an assemblage would not be expected in these areas given the tall dense swards (including a high proportion of gorse, bracken, scrub and trees). This has been verified by site inspections undertaken by AECOM. Even in heathland that is not scrub and bracken encroached, diverse lichen assemblages will generally only occur where the sward is managed to keep it open to control dwarf shrub (i.e. heather) cover. As such, the higher critical level is considered more appropriate for the relevant roadside locations at Ashdown Forest SAC.

3.2.5 Bearing that in mind, modelling undertaken by Air Quality Consultants Ltd for Wealden District Council indicates that the 3 μm^{-3} critical level for these specific roadside locations is not exceeded and is not forecast to be exceeded. This is supported by AECOM's modelling (Appendix A).

3.2.6 Nonetheless, for completeness, Table 3 below summarises the ammonia concentration results for both links relevant to Tunbridge Wells (A26 and A275) with reference to whether the lower

[21] Two interim ecological survey reports have been released so far, the most recent dated May 2016. These are available at http://www.wealden.gov.uk/Wealden/Residents/Planning_and_Building_Control/Planning_Policy/Evidence_Base/Planning_Evidence_Base_Habitat_Regulations_Assessment.aspx

[22] Paragraph 3.3.2 of the 2015 interim botanical survey report for Ashdown Forest states that '*Varying amounts of bryophytes and lichens were recorded, with Cladonia present in some areas but not particularly prevalent along transects'.*

critical level (1 μm^{-3}) is forecast to be exceeded at the nearest area of heathland based on AECOM modelling.

Table 3. Summary of ammonia results for the nearest areas of heathland to each modelled link, with reference to the 1 μm^{-3} critical level for ammonia

Link/Transect	Nearest area of heathland	Summary of results by reference to the 1 μm^{-3} critical level
Transect 38: A26 at Poundgate	Approximately 40m from the road, although most is more distant. Intervening habitat is woodland.	2033 ammonia concentrations are forecast to fall below 1 μm^{-3} by 30m from the road
Transect 37W: A275 at Wych Cross	Extensive areas approximately 5m from the road.	2033 ammonia concentrations are forecast to fall below 1 μm^{-3} by 5m from the road
Transect 37E: A275 at Wych Cross	Extensive areas approximately 5m from the road.	2033 ammonia concentrations are forecast to fall below 1 μm^{-3} by 5m from the road
Transect 6b_37_33: junction of A22 and A275	No heathland within 200m of the road; woodland occupies this zone.	2033 ammonia concentrations are forecast to fall below 1 μm^{-3} by 50m from the road

3.2.7 It can be seen that using a reference critical level of 1 μm^{-3} the nearest areas of heathland would not be affected.

Oxides of Nitrogen

3.2.8 Appendix A shows the annual mean NOx concentrations for the Baseline, Do Nothing scenario and Do Something Scenario. It also shows the 'Projected Baseline'. This is the modelled NOx concentrations in the hypothetical scenario of no traffic growth to 2033 but allowing for improvements in vehicle emissions for the existing traffic and an associated reduction in background nitrogen deposition. It is presented such that the additional NOx emissions due to traffic growth can be visually separated from the reduction in NOx concentrations due to the improving baseline. When assessing the likely effects of the planned growth in Tunbridge Wells Borough by 2033, it is necessary to consider: i) the additional NOx emissions caused by growth in the region (DS - Proj BL); ii) the contribution of Tunbridge Wells growth to the additional emissions; and iii) the overall change in annual mean NOx concentrations by 2033, taking into account improvements in vehicle emissions standards as applied to both existing and future traffic (DS - BL).

3.2.9 Based on background mapping, adjusted for the effect of the road, the air quality calculations provided in Appendix A show that the 2017 baseline NOx concentrations are modelled to be above the 30 μgm^{-3} general Critical Level for vegetation at the roadside along all transects except for the A275. However, at the nearest areas of heathland (as per Table 3) the critical level is not forecast to be breached either in 2017 or by 2033 even allowing for traffic growth.

3.2.10 The additional NOx emissions due to traffic growth 'in combination' to any heathland along the A26 (column 'DS-ProjBL' in Appendix A) would be approximately 7 μgm^{-3} by 2033, although it would drop away quickly, falling nearly 50% by 5m from the road and falling further to 1.08 μgm^{-3} at the nearest area of heathland, approximately 40m from the A26. The contribution of Tunbridge Wells Local Plan to additional NOx at the closest part of the SAC to the A26[23] is forecast to be 1.4 μgm^{-3}, falling to 0.2 μgm^{-3} by the nearest area of heathland. However, improvements in NOx emission factors would also apply to the existing vehicle fleet. When a cautious allowance is made for improved emission factors applied to all traffic (existing and future), NOx is expected to remain above the critical level, but is forecast to experience a net *reduction* of c. 20 μgm^{-3} at the closest point of the SAC to the A26. The improvements in vehicle emission factors expected to 2033 are thus forecast to more than offset the increase in NOx from an increase in the volume of vehicle movements.

3.2.11 The same pattern is forecast at the roadside of the A275. At the closest point of the SAC to the A275 the additional NOx due to traffic growth 'in combination' by 2033 would be approximately 2 μgm^{-3}, although it would fall off quickly, dropping c. 50% by 5m from the roadside. The contribution of Tunbridge Wells Local Plan to NOx[24] would be a minimal 0.15 μgm^{-3} at the

[23] 50% of the modelled difference between Do Something and Do Nothing in Appendix A i.e. 50% of the value in the DS-DN column

[24] 21% of the modelled difference between Do Something and Do Nothing in Appendix A

roadside, falling to 0.08 µgm^{-3} by the nearest area of heathland, c.5m from the road. When forecast improvements in emission factors across the vehicle fleet are taken into account, NOx at this location is actually forecast to experience a net reduction of c. 6 µgm^{-3} by 2033.

3.2.12 In summary, by 2033, NOx concentrations on all modelled links are forecast to experience a net reduction due to changes in vehicle emissions, notwithstanding the projected increase in traffic on the roads, including that attributable to the Tunbridge Wells Local Plan[25]. The greatest net improvement is forecast to occur at the roadside on the link with the highest flows (c. 20 µgm^{-3} on the A26), while the smallest net improvement is forecast to occur at the roadside on the link with the lowest flows (c. 6 µgm^{-3} on the A275).

Nitrogen deposition

3.2.13 Since the most ecologically significant role of NOx at the concentrations forecast at the nearest areas of heathland (i.e. below the critical level) is as a source of nitrogen the next step is to consider what effect this may have on nitrogen deposition rates, and this also factors in the role of ammonia as a source of nitrogen.[26] Calculating nitrogen deposition rates rather than relying purely on scrutiny of NOx concentrations has the advantage of being habitat specific (the critical level for NOx is entirely generic; in reality different habitats have varying tolerance to nitrogen) and of being directly relatable to measurable effects on the ground through scrutiny of published dose-response relationships that do not exist for NOx. Only the A26 and A275 are specifically discussed below since these are the only roads on which an increase in AADT is forecast due to the Tunbridge Wells Local Plan.

3.2.14 As with NOx, Appendix A shows the annual mean nitrogen deposition rates for the Baseline, Do Nothing scenario and Do Something Scenario. It also shows the 'Projected Baseline'. This is the modelled nitrogen deposition rates in the hypothetical scenario of no traffic growth to 2033 but allowing for improvements in vehicle emissions for the existing traffic and an associated reduction in background nitrogen deposition. It is presented such that the additional nitrogen deposition due to traffic growth can be visually separated from the reduction in nitrogen deposition due to the improving baseline. When assessing the likely effects of the planned growth in Tunbridge Wells Borough by 2033, it is necessary to consider: i) the additional nitrogen deposition caused by growth in the region (DS - Proj BL); ii) the contribution of Tunbridge Wells growth to the additional nitrogen; and iii) the overall change in annual mean nitrogen deposition rates by 2033, taking into account improvements in vehicle emissions standards as applied to both existing and future traffic (DS - BL).

3.2.15 Although much of Ashdown Forest SAC (including the borders of many roads) is covered with woodland and the habitat is a feature of the SSSI, woodland is not a notified feature of the internationally important wildlife sites. Ashdown Forest SAC is designated for its heathland and it is this habitat on which the birds of Ashdown Forest SPA depend. In order to undertake the nitrogen deposition modelling it is necessary to select an appropriate deposition velocity and background deposition rate. Since heathland is the SAC habitat appropriate deposition velocities for this habitat were used in the modelling since deposition to other habitats (e.g. woodland) is not relevant to the assessment. In late 2018 the CJEU ruled in case C-461/17, dubbed the Holohan case, that it was necessary to consider other habitats besides those for which the site is actually designated:' … *provided that those implications* [for those habitats] *are liable to affect the conservation objectives of the* [European] *site'* (para. 39 and elsewhere). The vegetative characteristics of the permanent woodland are not linked to the ability of the SAC or SPA to achieve their conservation objectives. Therefore the Holohan case does not require the woodland to be considered in the modelling.

3.2.16 Critical loads are always presented as a range, which for heathland is 10 kgN/ha/yr to 20 kgN/ha/yr[27]. The lowest part of the nitrogen Critical Load range has been used in this assessment as that is the most precautionary stance to take. The baseline for nitrogen deposition to heathland along A26 and A275 is above the Critical Load and has been modelled to

[25] Appendix C contains a technical note confirming that traffic emissions are expected to reduce year on year during the modelled plan period notwithstanding traffic growth over that same timetable; i.e. the improving trend is consistent throughout the plan period.

[26] Acid deposition rates for all transects on all modelled links are expected to improve over the plan period and the contribution of the Tunbridge Wells Local Plan to any retardation of that improvement is effectively zero, in that any contribution is too small to show in the model (i.e. it would affect the third decimal place or beyond, which are never reported in modelling). Acid deposition is therefore not discussed further in this document.

[27] APIS advises to use the high end of the range with high precipitation and the low end of the range with low precipitation and to use the low end of the range for systems with a low water table, and the high end of the range for systems with a high water table.

be c.17-25 kgN/ha/yr at the closest points to the road, declining to 13-14 kgN/ha/yr by 200m from the road. The results relating to the nearest areas of heathland are summarised in Table 4 below.

Table 4. Total additional nitrogen deposition due to growth 'in combination' at closest area of heathland

Link/Transect	Nearest existing area of heathland	Summary of results 'in combination'
Transect 38: A26 at Poundgate	Approximately 40m from the road, although most is more distant.	0.31 kgN/ha/yr at 40m from the road (1.96 kgN/ha/yr at the roadside)
Transect 37W: A275 at Wych Cross	Extensive areas approximately 5m from the road.	0.31 kgN/ha/yr at 5m from the road (0.56 kgN/ha/yr at the roadside)
Transect 37E: A275 at Wych Cross	Extensive areas approximately 5m from the road.	0.28 kgN/ha/yr at 5m from the road (0.51 kgN/ha/yr at the roadside)
Transect 6b_37_33: junction of A22 and A275	No heathland within 200m of the road	N/A

3.2.17 At the closest areas of heathland to modelled links relevant to Tunbridge Wells (along the A275) the worst-case additional deposition due to extra traffic is forecast to be c. 0.6 kgN/ha/yr at the roadside, declining nearly 50% by 5m from the roadside. The contribution of Tunbridge Wells Local Plan to nitrogen deposition at the roadside of the A275 would be a negligible 0.04 kgN/ha/yr[28], falling to effectively zero by 10m from the road[29].

3.2.18 Most importantly, the DS-BL column in Appendix A shows that the deposition from additional traffic (irrespective of source) is forecast to be offset by a much larger reduction in background deposition expected over the same timescale. As a result a net *reduction* in deposition of c. 1-1.5 kgN/ha/yr (depending on link) is actually forecast at the roadside notwithstanding traffic growth[30].

Ecological significance

3.2.19 The modelling demonstrates that there will be a net decreasing trend in nitrogen deposition rates to heathland within the SAC along the modelled links. Accordingly, the Local Plans will not have significant in-combination effects on the SAC by way of contributing to any net increase in nitrogen deposition.

3.2.20 It is however worth considering whether the Local Plans could have a significant effect on the SAC as a result of retarding (i.e. slowing) the improvement of nitrogen deposition rates, as paragraph 3.2.17 and the modelling in Appendix A identify that the forecast improvement in deposition rates to heathland would be slightly lower due to expected traffic growth than in the hypothetical situation of no further traffic growth (compare column DS, which is the forecast 2033 deposition rates including traffic growth, with column 'Proj BL', which is the forecast 2033 deposition rates if there were no traffic growth). Drawing a conclusion on this matter requires ecological interpretation to determine whether an abstract retardation of improvement in nitrogen deposition is likely to result in a real terms ecological impact.

3.2.21 Deposition of nitrogen can cause a variety of responses in heathland: transition from heather to grass dominance, decline in lichens (such as *Cladionia* species), changes in plant biochemistry and increased sensitivity to stress[31]. The physical, measurable and observable manifestations of these responses are generally in terms of reduction in species richness[32], reduction in cover (or

[28] 21% of the modelled difference between Do Something and Do Nothing for this link in Appendix A

[29] Traffic on every road will make a very small contribution to the 'background' air pollution across a large geographic area, as well as its much greater contribution to changes in roadside air quality. However, these emissions can disperse hundreds of kilometres from the source. As such, the incremental contribution that all vehicles make to background NOx and nitrogen deposition is properly considered at the national and international scale and is being addressed through national and international initiatives such as improved emissions technology, the government's Clean Air Strategy etc.

[30] If the actual current roadside deposition rates are substantially higher than that included in the AECOM model, the percentage reduction in nitrogen deposition rate by 2033 would be the same but the actual reduction in deposition rate would be much greater.

[31] Caporn, S., Field, C., Payne, R., Dise, N., Britton, A., Emmett, B., Jones, L., Phoenix, G., S Power, S., Sheppard, L. & Stevens, C. 2016. Assessing the effects of small increments of atmospheric nitrogen deposition (above the critical load) on semi-natural habitats of conservation importance. Natural England Commissioned Reports, Number 210. Table 1 page 2

[32] This is a good indicator of the effect of nitrogen deposition on vegetation as it arises at low background deposition rates, is easily detectable and occurs across different habitats. The exception appears to be calcareous grassland where there is no correlation between nitrogen deposition and species richness; for that habitat, rather than there being a reduction in the average number of species per quadrat the reduced frequency of less competitive species appears to be offset by the increased frequency of more competitive species.

increase in grass cover) and resulting changes in broad habitat structure. These responses are not independent: for example, reduction in species richness can cause, and in turn be exacerbated by, changes in habitat structure. Note that 'reduction in species richness' only means that fewer species are recorded in a randomly placed 2m x 2m quadrat. Therefore, it does not mean species are 'lost' from the affected area; it simply means that at least one species occurs at a reduced frequency[33]; it is therefore a relatively subtle metric.

3.2.22 Critical Loads have been in use for a number of years and have been defined as: '*a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge*'. However, more recent studies[34] comparing deposition rate with reduction in species richness and other parameters indicate that the response of habitats such as heathland to long-term nitrogen deposition is curved for most parameters, with some of the sharpest losses in diversity occurring below the critical load[35]. Moreover, those studies also indicate that the effect on species richness of adding a given amount of nitrogen in many habitats is not simple, linear and additive as is often assumed (i.e. 'x' amount of further nitrogen equates to 'x' amount of vegetation effect irrespective of current nitrogen dose) but is heavily influenced by the existing nitrogen deposition rate. It has thus become clear that the response of vegetation to nitrogen deposition is more nuanced that the 'black and white' critical load concept suggests.

3.2.23 The amount of extra nitrogen needed to cause a measurable effect on species richness has been shown from a range of studies on a range of sites to be considerably greater in lowland heathland subject to high existing deposition rates than it is in those with low existing deposition rates. This is true for most parameters, whether that effect is defined in terms of reduction in species richness, reduction in species cover, or probability of species presence[36]. The only metric for which this relationship appears not to be true is with regard to increases in grass cover[37]. Putting it simply, using most available parameters a small amount of additional nitrogen is much less likely to significantly affect a heathland already subject to high inputs than it is to affect one subject to low inputs. Ultimately, it is the predicted effect on the site vegetation (and thus its ability to achieve its conservation objectives) that is the key factor in determining whether there will actually be an adverse effect on the integrity of a site, rather than NOx concentrations or nitrogen deposition rates in the abstract. Therefore, it is possible for an increase in nitrogen deposition to fail to result in a measurable (and thus significant) ecological effect on the ground, even when the critical load is far exceeded, depending on the size of the 'dose' and the amount of relevant habitat in the European site that may be affected.

3.2.24 Given this background, it is necessary to refer to dose-response relationships and the forecast background deposition rate by 2033 to determine the ecological effect of a given retardation in nitrogen deposition rate. Since there is a significant improvement in nitrogen deposition rates in the Do Something scenario, the relevant question is whether there would be an ecological difference between any improvement in the vegetation due to the Projected Baseline and that resulting from the Do Something scenario. In real terms, would one expect a meaningful ecological difference in vegetation characteristics between an improvement in the rate of nitrogen deposition of 1.75 kgN/ha/yr and one of 1.44 kgN/ha/yr (the nearest area of heathland at receptor 38, the A26 at Poundgate) or between an improvement of 1.83 kg N/ha/yr and one of 1.52 kgN/ha/yr (5m from receptor 37W, A275 at Wych Cross), or between an improvement of 1.81 kgN/ha/yr and one of 1.53 kgN/ha/yr (receptor 37E, A275 at Wych Cross).

3.2.25 Caporn et al (2016) states that '*it is recommended that the findings in this report, subject to local conditions, be used to predict responses to an incremental increase in N deposition sustained over the long term*'. Reference to Appendix 5 of Caporn et al (2016) suggests that at background deposition rates of c. 15kgN/ha/yr (the approximate deposition rate forecast at the closest areas of heathland in this modelling) the forecast net reduction in nitrogen deposition at the most affected areas of heathland (a little less than 2kgN/ha/yr) could potentially result in an increase in species richness (whether grass species richness, moss species richness or total species richness) of up to c. 3-4% of the maximum. Using a total maximum species richness of 37

[33] Caporn et al (2016), page 39
[34] Compiled and analysed in Caporn et al 2016
[35] Ibid. paragraph 5 page ii
[36] Ibid. Tables 20-22, pages 57-60 show that, for lowland heathland, as background deposition rates increase the effect of adding a given amount of extra nitrogen decreases for most parameters
[37] Grasses often benefit at the expense of other species in habitats subject to elevated nitrogen deposition and as such their abundance increases rather than decreases; however, grass cover is also heavily influenced by other factors unrelated to nitrogen deposition

species[38] this would mean approximately 1-2 more species could be found in the sward on average. Such a reduction in deposition rates could also result in a reduction in grass (graminoid) cover of up to 1%[39] **if** other factors that are likely to have a much greater effect on species richness and grass cover than nitrogen deposition (such as management and drainage) are suitable.

3.2.26 Appendix 5 of Caporn et al (2016) also suggests that at a background deposition rate of 15 kgN/ha/yr the worst-case additional nitrogen deposition to heathland as a result of traffic growth (c. 0.3 kgN/ha/yr at 5m from the A275 or 40m from the A26) could, if it constituted a net increase in deposition, result in a 0.1% increase in grass (graminoid) cover and a 0.6% reduction in species richness (whether grasses, mosses or total species richness) at the roadside (the change away from the roadside would be much less)[40]. However, expressing the change in species richness as a percentage takes no account of the fact that one cannot have a fraction of a species (for example, 0.6% of 37 species would be a reduction of 0.2 species, which is not possible). Caporn et al (2016) solve this interpretive problem by expressing the same data in relation to the nitrogen dose that would reduce species richness by at least 1 species.

3.2.27 Effects on species richness are a key metric in section 6 of Caporn et al (2016), the part of the report which provides the dose-response findings. Page 3 identifies this focus on species-richness in Chapter 6: '*Here the relationships identified in task 4 between N deposition and the response variables within each habitat were further considered and the effect of an incremental increase in long-term N pollution upon each was derived. This is reported as percent change in species richness or cover of selected indicator species for a 1 kg ha-1 yr-1 rise in long-term N pollution, and the amount of long-term N that would lead to a reduction in species richness of 1 species at different background levels of N pollution'* [emphasis added]. The focus on the species richness metric in Caporn et al (2016) indicates that it is intended to be used to assess the effect of a given additional dose. In practice this therefore defines the minimum nitrogen dose that would be expected to result in a change in the number of species recorded. Table 21 of Caporn et al (2016) shows that, based on the heathlands surveyed, at a background nitrogen deposition rate of c. 15 kgN/ha/yr species richness in lowland heathland would not be expected to change until a dose of c. 1.3 kgN/ha/yr was applied.

3.2.28 Natural England has confirmed in consultation over this report that they agree with the conclusions drawn and they have not objected to the manner in which Caporn et al (2016), a Natural England Research Report, has been used.

3.2.29 In terms of changes in coarse habitat structure it is considered that the small forecast additional nitrogen deposition (equivalent to a maximum c. 2% of the deposition rate otherwise forecast in these locations by 2033) would not stimulate growth to such an extent that a material change in management burden occurred, and the structure of the sward is dictated primarily by management.

3.2.30 Even this worst-case dose is only forecast to occur to heathland in a belt 5-10m from the roadside of the A275, affecting a very small part of the SAC (c.0.9ha of heathland or 0.06% of the heathland in the SAC[41]), all of which lies in a narrow band c. 5m wide very close to the road. Even this small effect is not a net deterioration but a slight slowing in the rate of vegetation recovery that might otherwise occur. The remaining 99.94% of heathland in the SAC will be affected to a much smaller extent than even this small 'in combination' dose.

3.2.31 Bearing in mind that a net reduction in nitrogen deposition is actually being forecast, the most that might be expected by 2033 due to traffic growth on roads through the SAC is that one *might* record a reduction in percentage grass cover immediately adjacent to the A275 of 0.9%, as opposed to a potential 1% reduction in the hypothetical case of no traffic growth. Whether any difference would actually be observed in practice would depend heavily on other factors, because management regime in particular has a much greater influence than nitrogen deposition

[38] 37 species is the maximum species richness in the lowland heathland sample reported in Caporn et al (2016) and is the reference species richness for lowland heathland used throughout that report.
[39] Appendix 5, Caporn et al (2016)
[40] Caporn el al (2016) indicates that not all species respond equally to nitrogen deposition (some are stimulated, others negatively affected). For example, Table 22 of NECR2010 shows that at background rates of 15 kgN/ha/yr one would expect a dose of 1 kgN/ha/yr (three times what is forecast in the AECOM model) to reduce the frequency of occurrence (percentage cover, or probability of presence) of five representative lowland heathland lower plant species (*Hylocomium splendens, Hylocomium splendens, Cladonia portentosa, Cladonia portentosa, Brachythecium rutabulum*) by between 0.2% and 0.5%. However, they also state on page 71 that '*The relatively small datasets mean that caution should be applied when drawing conclusions on site integrity based on the presence or absence of individual species and that this information* [should] *be used in conjunction with changes in species richness and composition'.*
[41] According to the Natura 2000 data sheet there are 1,611 ha of heathland in the SAC.

on parameters such as percentage grass cover and species richness. The total species richness (or number of moss species or grass species) would not be expected to be any different in practice than would be the case without any traffic growth.

3.2.32 There are several reasons why a conclusion of no adverse effect is reached with confidence. First, AECOM has carried out sensitivity testing of nitrogen deposition rates using different deposition velocities. The AECOM model uses a nitrogen deposition velocity for heathland ('short vegetation') of 0.1 $cms^{-1.}$ That accords with the DMRB guidance and is also broadly in line with that used in Environment Agency guidance (which uses a figure of 0.15 cms^{-1}). However, the trends described above would still arise with higher deposition velocities[42].

3.2.33 Secondly, the results hold true even if actual measured baseline deposition rates are substantially higher than those extrapolated from Defra mapping, as is suggested by measured data provided by Wealden District Council[43]. For example, at background deposition rates of 30 kgN/ha/yr, an additional 2.4 kgN/ha/yr would be required to reduce the average species richness of the sward.[44]

3.2.34 Thirdly, the conclusions are supported by academic research. Southon et al (2013) studied over fifty heathlands across England at deposition rates of up to 32.4kgN/ha/yr and found that above 20 kgN/ha/yr *'… declines in species richness plateaued, indicating a reduction in sensitivity as N loading increased'.* The heathland sites covered by the research reported in Caporn et al (2016) had a wide geographic spread and were subject to a range of different 'conditions' but the identified trends were nonetheless observable. The fact that a given heathland site may not have been included in the sample cannot be a basis for the identified trend to be dismissed as inapplicable. On the contrary, the value of the available dose-response research is precisely in the fact that it covers a geographic range of sites subject to a mixture of different influences that might otherwise mask the nitrogen relationships if a given site was looked at in isolation. Caporn et al (2016) illustrates that consistent trends have been identified *despite* the differing geographic locations of those habitats and different conditions at the sites involved.

3.2.35 Heathland and acid grassland (a related habitat that is often found intermixed with heathland) have been particularly well studied across broad geographical, climatic and pollution gradients covering different levels of soil organic matter, rates of nutrient cycling, plant species assemblages and management regimes. Despite this, the overall trends, including that a given 'dose' of nitrogen generally has less effect on a range of vegetation parameters (other than grass cover) as background deposition rates rise has been reported by various peer reviewed academic papers[45]. Southon et al (2013) surveyed 52 heathlands across England and observed statistically significant trends despite the large differences in conditions of these heathlands. That paper specifically states that '*the biggest reductions in species number* [were] *associated with increasing N inputs at the low end of the deposition range'* and that '*The similarity of relationships between upland and lowland environments, across broad spatial and climatic gradients, highlights the ubiquity of relationships with N*'. Based on the consistent trend across the range of habitats studied (including wet habitats such as bogs as well as lowland heathland, upland heathland and dune systems) there is no basis to assume that the identified trends would not be applicable to all types of heath, including wet heath. Upland heathlands tend to be wetter than lowland heathlands due to climate differences and yet the same pattern has been observed as reported in Southon et al (2013).

3.2.36 Due to the existence of other influences (such as management) that have a much greater effect on relevant vegetation parameters than does nitrogen deposition, there can be no absolute certainty that the reported trends would be observed in a given part of Ashdown Forest.

[42] AECOM has undertaken sensitivity testing using deposition velocities of 0.24 cms^{-1} and 0.34 cms^{-1} to heathland (Environment Agency and DMRB guidance reserves such high deposition velocities for woodland). This still results in a large forecast net improvement in nitrogen deposition.

[43] AQC report- Ashdown Forest SAC, Air Quality Monitoring and Modelling, December 2017 update with some redacted locations reinstated

[44] Table 21 of Caporn et al 2016

[45] Stevens, C. J.; Dise, N. B.; Gowing, D. J. G. and Mountford, J. O. (2006). Loss of forb diversity in relation to nitrogen deposition in the UK: regional trends and potential controls. Global Change Biology,12(10), pp. 1823–1833.

Southon GE, Field C, Caporn SJM, Britton AJ, Power SA (2013) Nitrogen Deposition Reduces Plant Diversity and Alters Ecosystem Functioning: Field-Scale Evidence from a Nationwide Survey of UK Heathlands. PLoS ONE 8(4): e59031. doi:10.1371/journal.pone.0059031

Stevens, Carly; Dupre, Cecilia; Dorland, Edu; Gaudnik, Cassandre; Gowing, David J. G.; Bleeker, Albert; Diekmann, Martin; Alard, Didier; Bobbink, Roland; Fowler, David; Corcket, Emmanuel; Mountford, J. Owen; Vandvik, Vigdis; Aarrestad, Per Arild; Muller, Serge and Dise, Nancy B. (2010). Nitrogen deposition threatens species richness of grasslands across Europe. Environmental Pollution, 158(9), pp. 2940–2945.

However, there is a reasonable scientific expectation that the observed relationships would be detected if Ashdown Forest was included in the broader sample.

3.2.37 Fourthly, although it is necessary to carry out an 'in-combination' assessment of effects, it remains relevant to consider the extent to which Tunbridge Wells contributes to that in-combination effect. On that assessment, Tunbridge Wells' contribution is negligible at the closest areas of heathland to all modelled links.

3.2.38 Finally, Natural England have previously advised that the impact assessment should only include those areas which are currently heathland rather than speculate about parts of the SAC that constitute other habitats (particularly woodland) and may or may not be put down to heathland at an unspecified point in the future[46]. As set out above, in relation to the A26 at Poundgate, there is no significant presence of heathland within 40m of the roadside so the relevant comparison is an improvement in the rate of nitrogen deposition in the Projected Baseline of 1.75 kgN/ha/yr and an improvement in the Do Something Scenario of 1.44 kgN/ha/yr (rather than 2.87 kgN/ha/yr and 0.91 kgN/ha/yr). A retardation of improvement of 0.3 kgN/ha/yr is clearly not of any ecological significance.

3.2.39 In any event, the ability to create heathland adjacent to the A26 is likely to be influenced much more by other factors such as management, soil pH, soil phosphate levels, drainage and the removal of tree trunks and root systems[47].

[46] Semi-natural woodland is an interest feature of Ashdown Forest SSSI, so it is very unlikely that clear-felling of such habitats would ever take place in order to replace them with heathland

[47] The process of creating, and then resurfacing/maintaining a significant road and buried roadside services (where these are present) or drainage, often results in changes to the underlying geology and hydrological function of the soils at the roadside, including from the importation of atypical fill material during historic road construction. These habitats can be further affected by surface water runoff all year round (depending on local topography) and salt spray from winter gritting. In addition, it is often desirable to retain a belt of permanent forestry adjacent to roads in order to serve as a buffer feature to the heathland and (for the SPA) the disturbance-sensitive bird populations that lie behind it. The area adjacent to the road is the area most affected by nitrogen deposition due to local traffic.

4 Conclusion

4.1.1 The development of nitrogen dose-response relationships for various habitats clarifies the rate of additional nitrogen deposition required to achieve a measurable effect on heathland vegetation. It is therefore possible to use these relationships to determine that a plan or collection of plans will not have an adverse effect. Such a plan would be one in which one could say with confidence that a) there would not be a significant difference in the vegetation whether or not that plan proceeded and b) there would not be a significant effect on the vegetation (and thus protection conveyed to the European site) whether or not the contribution of that plan was 'mitigated' (i.e. reduced to such an extent that it did not appear in the model at all). It would clearly be unreasonable to claim that such a plan caused an adverse effect 'in combination' or that it should be mitigated. The contribution of the Tunbridge Wells Local Plan falls within those parameters.

4.1.2 Since a) air quality in 2033 is forecast to be significantly better than in 2017 notwithstanding the precautionary assumptions made about both growth and improvements in vehicle emissions factors, b) no significant in combination retardation of vegetation improvement at the closest and most affected areas of heathland is expected and c) the contribution of Tunbridge Wells Local Plan to the 'in combination' scenario for those nearest areas of heathland is negligible, the modelling in Appendix A does not provide any basis to conclude an adverse effect on integrity of Ashdown Forest SAC or SPA from growth in Tunbridge Wells Borough over that period in combination with other plans. Since no net adverse effect on integrity is forecast, no mitigation as such would be required.

4.1.3 It should be noted that the assessment undertaken to inform this conclusion was precautionary. For example:

- The Design Manual for Roads and Bridges and Defra guidance recommend making a 2% reduction per annum in background emissions/deposition rates throughout the period from base year to assessment year in order to allow for improvements such as the introduction of Euro6 standard vehicles. In this case, AECOM took a considerably more cautious approach in this modelling which could therefore prove to underestimate improvements in background nitrogen deposition.
- Rather than simply model the rates of growth set out in adopted or submitted Core Strategies and Local Plans, the AECOM model increased the housing delivery rates for those authorities immediately surrounding Ashdown Forest SAC (Wealden District, Mid-Sussex District and Tandridge District) to allow for additional growth in line with the most-recently expressed Objectively Assessed Need as of June 2017. In some cases (e.g. Mid-Sussex) this substantially increased the amount of housing allowed for over the period to 2033. In practice, therefore, growth around Ashdown Forest SAC may have been over-estimated. For example, the recent Government consultation on Objectively Assessed Need (OAN) proposes a significantly lower OAN for Wealden District than was allowed for in the AECOM model.

4.1.4 It is therefore concluded that no adverse effect upon the integrity of Ashdown Forest SAC is expected to result from development provided by the Tunbridge Wells Local Plan, even in combination with other plans and projects. This is due to a combination of a) an expected net improvement in air quality over the Local Plan period, b) the fact that, whether or not that improvement occurs to the extent forecast, the contribution of the Tunbridge Wells Local Plan to changes in roadside air quality is demonstrably ecologically negligible due to the very small magnitude and c) the precautionary nature of the modelling.

4.1.5 This conclusion is not intended to suggest that no active attempt should be made to reduce background NOx concentrations and nitrogen deposition around Ashdown Forest as a matter of general good stewardship if that is what the authorities agree, and the authorities already have a forum for collaborative involvement in this issue via the working group that has recently been convened by South Downs National Park Authority.

Appendix A. Detailed Modelling Results

Ammonia Concentrations

Receptor 38: the A26 at Poundgate

Lookup ID	Road Link	Distance From Road (m)	Annual Mean NH_3 Conc. (ug/m3) BL Base	DN (Base 2033)	DS (Scn1 2033)	Change (DS-DN)	Change (DS-BL)
1	38_0m	0	2.32	2.47	2.58	0.11	0.26
2	38_5m	5	1.61	1.69	1.75	0.06	0.15
3	38_10m	10	1.31	1.36	1.41	0.05	0.10
4	38_15m	15	1.15	1.19	1.23	0.04	0.08
5	38_20m	20	1.05	1.08	1.11	0.03	0.06
6	38_30m	30	0.93	0.95	0.97	0.02	0.05
7	38_40m	40	0.86	0.88	0.89	0.02	0.04
8	38_50m	50	0.81	0.83	0.84	0.01	0.03
9	38_60m	60	0.78	0.79	0.81	0.01	0.03
10	38_70m	70	0.76	0.77	0.78	0.01	0.02
11	38_80m	80	0.74	0.75	0.76	0.01	0.02
12	38_90m	90	0.72	0.73	0.74	0.01	0.02
13	38_100m	100	0.71	0.72	0.73	0.01	0.02
14	38_125m	125	0.69	0.69	0.70	0.01	0.01
15	38_150m	150	0.67	0.68	0.68	0.00	0.01
16	38_175m	175	0.66	0.67	0.67	0.00	0.01
17	38_200m	200	0.65	0.66	0.66	0.00	0.01

Receptor 37W – A275 at Wych Cross

Lookup ID	Road Link	Distance From Road (m)	Annual Mean Nox Conc. (ug/m3) BL Base	DN (Base 2033)	DS (Scn1 2033)	Change (DS-DN)	Change (DS-BL)
18	37W_0m	0	1.07	1.11	1.14	0.03	0.07
19	37W_5m	5	0.86	0.88	0.89	0.02	0.04
20	37W_10m	10	0.78	0.79	0.80	0.01	0.03
21	37W_15m	15	0.74	0.75	0.76	0.01	0.02
22	37W_20m	20	0.71	0.72	0.73	0.01	0.02
23	37W_30m	30	0.68	0.69	0.70	0.01	0.01
24	37W_40m	40	0.67	0.67	0.68	0.00	0.01
25	37W_50m	50	0.66	0.66	0.66	0.00	0.01
26	37W_60m	60	0.65	0.65	0.66	0.00	0.01
27	37W_70m	70	0.64	0.65	0.65	0.00	0.01
28	37W_80m	80	0.64	0.64	0.64	0.00	0.01
29	37W_90m	90	0.64	0.64	0.64	0.00	0.00
30	37W_100m	100	0.63	0.64	0.64	0.00	0.00
31	37W_125m	125	0.63	0.63	0.63	0.00	0.00
32	37W_150m	150	0.62	0.63	0.63	0.00	0.00
33	37W_175m	175	0.62	0.62	0.62	0.00	0.00

34	37W_200m	200	0.62	0.62	0.62	0.00	0.00

Receptor 37E – A275 at Wych Cross

			Annual Mean Nox Conc. (ug/m3)				
Lookup		Distance	BL	DN	DS	Change	
ID	Road Link	From Road (m)	Base	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-BL)
35	37E_0m	0	1.03	1.06	1.09	0.03	0.06
36	37E_5m	5	0.84	0.86	0.87	0.02	0.03
37	37E_10m	10	0.77	0.78	0.79	0.01	0.02
38	37E_15m	15	0.73	0.74	0.75	0.01	0.02
39	37E_20m	20	0.71	0.72	0.72	0.01	0.02
40	37E_30m	30	0.68	0.69	0.69	0.00	0.01
41	37E_40m	40	0.66	0.67	0.67	0.00	0.01
42	37E_50m	50	0.65	0.66	0.66	0.00	0.01
43	37E_60m	60	0.65	0.65	0.65	0.00	0.01
44	37E_70m	70	0.64	0.65	0.65	0.00	0.01
45	37E_80m	80	0.64	0.64	0.64	0.00	0.01
46	37E_90m	90	0.64	0.64	0.64	0.00	0.00
47	37E_100m	100	0.63	0.64	0.64	0.00	0.00
48	37E_125m	125	0.63	0.63	0.63	0.00	0.00
49	37E_150m	150	0.63	0.63	0.63	0.00	0.00
50	37E_175m	175	0.62	0.62	0.63	0.00	0.00
51	37E_200m	200	0.62	0.62	0.62	0.00	0.00

Receptor 34 – A22 at Nutley

			Annual Mean Nox Conc. (ug/m3)				
Lookup		Distance	BL	DN	DS	Change	
ID	Road Link	From Road (m)	Base	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-BL)
52	34_0m	0	1.70	1.79	1.80	0.01	0.11
53	34_5m	5	1.26	1.31	1.32	0.01	0.06
54	34_10m	10	1.06	1.10	1.11	0.01	0.04
55	34_15m	15	0.96	0.99	0.99	0.00	0.03
56	34_20m	20	0.89	0.91	0.92	0.00	0.03
57	34_30m	30	0.81	0.83	0.83	0.00	0.02
58	34_40m	40	0.77	0.78	0.78	0.00	0.02
59	34_50m	50	0.74	0.75	0.75	0.00	0.01
60	34_60m	60	0.72	0.73	0.73	0.00	0.01
61	34_70m	70	0.70	0.71	0.71	0.00	0.01
62	34_80m	80	0.69	0.70	0.70	0.00	0.01
63	34_90m	90	0.68	0.69	0.69	0.00	0.01
64	34_100m	100	0.67	0.68	0.68	0.00	0.01
65	34_125m	125	0.66	0.66	0.66	0.00	0.01
66	34_150m	150	0.65	0.65	0.65	0.00	0.00
67	34_175m	175	0.64	0.64	0.65	0.00	0.00
68	34_200m	200	0.64	0.64	0.64	0.00	0.00

Receptor 33 – A22 at Wych Cross

			Annual Mean Nox Conc. (ug/m3)				
Lookup		Distance	BL	DN	DS	Change	
ID	Road Link	From Road (m)	Base	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-BL)
69	33_0m	0	1.36	1.42	1.43	0.01	0.07

70	33_5m	5	1.05	1.08	1.09	0.01	0.04
71	33_10m	10	0.92	0.94	0.94	0.00	0.03
72	33_15m	15	0.85	0.86	0.87	0.00	0.02
73	33_20m	20	0.80	0.82	0.82	0.00	0.02
74	33_30m	30	0.75	0.76	0.76	0.00	0.01
75	33_40m	40	0.72	0.73	0.73	0.00	0.01
76	33_50m	50	0.70	0.71	0.71	0.00	0.01
77	33_60m	60	0.69	0.69	0.69	0.00	0.01
78	33_70m	70	0.68	0.68	0.68	0.00	0.01
79	33_80m	80	0.67	0.67	0.67	0.00	0.01
80	33_90m	90	0.66	0.66	0.67	0.00	0.01
81	33_100m	100	0.66	0.66	0.66	0.00	0.00
82	33_125m	125	0.65	0.65	0.65	0.00	0.00
83	33_150m	150	0.64	0.64	0.64	0.00	0.00
84	33_175m	175	0.63	0.64	0.64	0.00	0.00
85	33_200m	200	0.63	0.63	0.63	0.00	0.00

Receptor 6b_37_33 – Junction of A22 and A275

			Annual Mean Nox Conc. (ug/m3)				
Lookup		**Distance**	**BL**	**DN**	**DS**	**Change**	
ID	**Road Link**	**From Road (m)**	**Base**	**(Base 2033)**	**(Scn1 2033)**	**(DS-DN)**	**(DS-BL)**
86	6b_37_33_0m	0	1.42	1.48	1.51	0.03	0.09
87	6b_37_33_5m	5	1.26	1.31	1.33	0.02	0.07
88	6b_37_33_10m	10	1.18	1.22	1.24	0.02	0.06
89	6b_37_33_15m	15	1.12	1.16	1.17	0.02	0.05
90	6b_37_33_20m	20	1.07	1.11	1.12	0.01	0.05
91	6b_37_33_30m	30	1.00	1.03	1.05	0.01	0.04
92	6b_37_33_40m	40	0.95	0.98	0.99	0.01	0.04
93	6b_37_33_50m	50	0.91	0.93	0.94	0.01	0.03
94	6b_37_33_60m	60	0.87	0.89	0.90	0.01	0.03
95	6b_37_33_70m	70	0.85	0.86	0.87	0.01	0.03
96	6b_37_33_80m	80	0.82	0.84	0.85	0.01	0.02
97	6b_37_33_90m	90	0.80	0.82	0.82	0.01	0.02
98	6b_37_33_100m	100	0.79	0.80	0.81	0.01	0.02
99	6b_37_33_125m	125	0.75	0.77	0.77	0.00	0.02
100	6b_37_33_150m	150	0.73	0.74	0.74	0.00	0.01
101	6b_37_33_175m	175	0.71	0.72	0.72	0.00	0.01
102	6b_37_33_200m	200	0.70	0.70	0.71	0.00	0.01

Receptor 6b - A22 at Royal Ashdown Forest Golf Course

			Annual Mean Nox Conc. (ug/m3)				
Lookup		**Distance**	**BL**	**DN**	**DS**	**Change**	
ID	**Road Link**	**From Road (m)**	**Base**	**(Base 2033)**	**(Scn1 2033)**	**(DS-DN)**	**(DS-BL)**
103	6b_3m	3	1.19	1.23	1.25	0.01	0.06
104	6b_8m	8	0.99	1.02	1.03	0.01	0.04
105	6b_13m	13	0.89	0.91	0.92	0.01	0.03
106	6b_18m	18	0.83	0.85	0.86	0.01	0.02
107	6b_23m	23	0.80	0.81	0.81	0.00	0.02
108	6b_33m	33	0.75	0.76	0.76	0.00	0.01
109	6b_43m	43	0.72	0.73	0.73	0.00	0.01

110	6b_53m	53	0.70	0.71	0.71	0.00	0.01
111	6b_63m	63	0.69	0.69	0.69	0.00	0.01
112	6b_73m	73	0.68	0.68	0.68	0.00	0.01
113	6b_83m	83	0.67	0.67	0.67	0.00	0.01
114	6b_93m	93	0.66	0.66	0.67	0.00	0.01
115	6b_103m	103	0.66	0.66	0.66	0.00	0.01
116	6b_128m	128	0.65	0.65	0.65	0.00	0.00
117	6b_153m	153	0.64	0.64	0.64	0.00	0.00
118	6b_178m	178	0.63	0.64	0.64	0.00	0.00
119	6b_203m	203	0.63	0.63	0.63	0.00	0.00

Receptor 6aSW – A22 at Royal Ashdown Forest Golf Course

			Annual Mean Nox Conc. (ug/m3)				
Lookup		**Distance**	**BL**	**DN**	**DS**	**Change**	
ID	**Road Link**	**From Road (m)**	**Base**	**(Base 2033)**	**(Scn1 2033)**	**(DS-DN)**	**(DS-BL)**
120	6aSW_0m	0	1.56	1.64	1.67	0.02	0.10
121	6aSW_5m	5	1.12	1.16	1.17	0.01	0.05
122	6aSW_10m	10	0.96	0.98	0.99	0.01	0.04
123	6aSW_15m	15	0.87	0.89	0.90	0.01	0.03
124	6aSW_20m	20	0.82	0.83	0.84	0.01	0.02
125	6aSW_30m	30	0.76	0.77	0.77	0.00	0.02
126	6aSW_40m	40	0.72	0.73	0.73	0.00	0.01
127	6aSW_50m	50	0.70	0.71	0.71	0.00	0.01
128	6aSW_60m	60	0.68	0.69	0.69	0.00	0.01
129	6aSW_70m	70	0.67	0.68	0.68	0.00	0.01
130	6aSW_80m	80	0.66	0.67	0.67	0.00	0.01
131	6aSW_90m	90	0.66	0.66	0.66	0.00	0.01
132	6aSW_100m	100	0.65	0.66	0.66	0.00	0.01
133	6aSW_125m	125	0.64	0.64	0.65	0.00	0.00
134	6aSW_150m	150	0.63	0.64	0.64	0.00	0.00
135	6aSW_175m	175	0.63	0.63	0.63	0.00	0.00
136	6aSW_200m	200	0.63	0.63	0.63	0.00	0.00

Receptor 6aSE – A22 at Royal Ashdown Forest Golf Course

			Annual Mean Nox Conc. (ug/m3)				
Lookup		**Distance**	**BL**	**DN**	**DS**	**Change**	
ID	**Road Link**	**From Road (m)**	**Base**	**(Base 2033)**	**(Scn1 2033)**	**(DS-DN)**	**(DS-BL)**
137	6aSE_0m	0	1.79	1.89	1.92	0.03	0.13
138	6aSE_5m	5	1.26	1.31	1.32	0.02	0.07
139	6aSE_10m	10	1.06	1.09	1.10	0.01	0.05
140	6aSE_15m	15	0.95	0.98	0.99	0.01	0.04
141	6aSE_20m	20	0.89	0.91	0.92	0.01	0.03
142	6aSE_30m	30	0.81	0.83	0.84	0.01	0.02
143	6aSE_40m	40	0.77	0.79	0.79	0.00	0.02
144	6aSE_50m	50	0.75	0.76	0.76	0.00	0.01
145	6aSE_60m	60	0.73	0.74	0.74	0.00	0.01
146	6aSE_70m	70	0.71	0.72	0.72	0.00	0.01
147	6aSE_80m	80	0.70	0.71	0.71	0.00	0.01
148	6aSE_90m	90	0.70	0.70	0.70	0.00	0.01
149	6aSE_100m	100	0.69	0.70	0.70	0.00	0.01
150	6aSE_125m	125	0.68	0.68	0.68	0.00	0.01

151	6aSE_150m	150	0.67	0.67	0.68	0.00	0.01
152	6aSE_175m	175	0.66	0.67	0.67	0.00	0.01
153	6aSE_200m	200	0.66	0.66	0.66	0.00	0.01

Receptor 6aNE – A22 at Royal Ashdown Forest Golf Course

			Annual Mean Nox Conc. (ug/m3)				
Lookup		**Distance**	**BL**	**DN**	**DS**	**Change**	
ID	**Road Link**	**From Road (m)**	**Base**	**(Base 2033)**	**(Scn1 2033)**	**(DS-DN)**	**(DS-BL)**
154	6aNE_0m	0	1.53	1.61	1.63	0.02	0.10
155	6aNE_5m	5	1.14	1.18	1.20	0.01	0.06
156	6aNE_10m	10	0.98	1.01	1.02	0.01	0.04
157	6aNE_15m	15	0.90	0.92	0.93	0.01	0.03
158	6aNE_20m	20	0.85	0.86	0.87	0.01	0.02
159	6aNE_30m	30	0.78	0.80	0.80	0.00	0.02
160	6aNE_40m	40	0.74	0.76	0.76	0.00	0.01
161	6aNE_50m	50	0.72	0.73	0.73	0.00	0.01
162	6aNE_60m	60	0.70	0.71	0.71	0.00	0.01
163	6aNE_70m	70	0.69	0.70	0.70	0.00	0.01
164	6aNE_80m	80	0.68	0.69	0.69	0.00	0.01
165	6aNE_90m	90	0.67	0.68	0.68	0.00	0.01
166	6aNE_100m	100	0.66	0.67	0.67	0.00	0.01
167	6aNE_125m	125	0.65	0.66	0.66	0.00	0.01
168	6aNE_150m	150	0.64	0.65	0.65	0.00	0.00
169	6aNE_175m	175	0.64	0.64	0.64	0.00	0.00
170	6aNE_200m	200	0.63	0.64	0.64	0.00	0.00

Receptor 33N – A22 at Wych Cross

			Annual Mean Nox Conc. (ug/m3)				
Lookup		**Distance**	**BL**	**DN**	**DS**	**Change**	
ID	**Road Link**	**From Road (m)**	**Base**	**(Base 2033)**	**(Scn1 2033)**	**(DS-DN)**	**(DS-BL)**
171	33N_0m	0	1.32	1.38	1.39	0.01	0.07
172	33N_5m	5	1.02	1.05	1.05	0.01	0.04
173	33N_10m	10	0.89	0.92	0.92	0.00	0.03
174	33N_15m	15	0.83	0.84	0.85	0.00	0.02
175	33N_20m	20	0.79	0.80	0.80	0.00	0.02
176	33N_30m	30	0.74	0.75	0.75	0.00	0.01
177	33N_40m	40	0.71	0.72	0.72	0.00	0.01
178	33N_50m	50	0.69	0.70	0.70	0.00	0.01
179	33N_60m	60	0.68	0.68	0.68	0.00	0.01
180	33N_70m	70	0.67	0.67	0.67	0.00	0.01
181	33N_80m	80	0.66	0.66	0.67	0.00	0.01
182	33N_90m	90	0.65	0.66	0.66	0.00	0.00
183	33N_100m	100	0.65	0.65	0.65	0.00	0.00
184	33N_125m	125	0.64	0.64	0.64	0.00	0.00
185	33N_150m	150	0.63	0.64	0.64	0.00	0.00
186	33N_175m	175	0.63	0.63	0.63	0.00	0.00
187	33N_200m	200	0.63	0.63	0.63	0.00	0.00

NOx, Nitrogen Deposition and Acid Deposition

Receptor 38: the A26 at Poundgate

	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	73.83	46.59	51.01	53.74	2.73	7.15	-20.09	24.99	22.12	23.38	24.08	0.69	1.96	-0.91	2.12	2.01	2.10	2.15	0.05	0.14	0.03
5	47.07	30.26	32.96	34.44	1.47	4.17	-12.64	20.09	17.69	18.45	18.86	0.41	1.17	-1.23	1.77	1.69	1.75	1.77	0.03	0.08	0.01
10	35.91	23.49	25.37	26.44	1.06	2.95	-9.47	17.99	15.83	16.37	16.66	0.29	0.83	-1.33	1.62	1.56	1.60	1.62	0.02	0.06	0.00
15	29.98	19.91	21.39	22.21	0.82	2.30	-7.78	16.87	14.85	15.27	15.49	0.23	0.65	-1.38	1.54	1.49	1.52	1.53	0.02	0.05	0.00
20	26.19	17.63	18.82	19.50	0.68	1.88	-6.69	16.15	14.22	14.56	14.75	0.19	0.53	-1.40	1.49	1.44	1.47	1.48	0.01	0.04	0.00
30	21.66	14.92	15.79	16.28	0.49	1.36	-5.38	15.28	13.47	13.72	13.86	0.14	0.39	-1.43	1.42	1.39	1.41	1.42	0.01	0.03	-0.01
40	19.09	13.38	14.07	14.45	0.38	1.08	-4.64	14.79	13.04	13.24	13.35	0.11	0.31	-1.44	1.39	1.36	1.37	1.38	0.01	0.02	-0.01
50	17.37	12.36	12.92	13.25	0.33	0.90	-4.12	14.46	12.76	12.92	13.01	0.09	0.25	-1.45	1.36	1.34	1.35	1.36	0.01	0.02	-0.01
60	16.17	11.63	12.10	12.38	0.27	0.75	-3.79	14.23	12.56	12.70	12.77	0.08	0.21	-1.45	1.35	1.32	1.33	1.34	0.01	0.02	-0.01
70	15.27	11.10	11.50	11.75	0.25	0.65	-3.52	14.05	12.41	12.53	12.60	0.07	0.19	-1.45	1.34	1.31	1.32	1.33	0.00	0.01	-0.01
80	14.56	10.68	11.04	11.26	0.22	0.58	-3.30	13.91	12.29	12.40	12.46	0.06	0.16	-1.46	1.33	1.31	1.31	1.32	0.00	0.01	-0.01
90	14.01	10.34	10.68	10.85	0.16	0.50	-3.17	13.81	12.20	12.30	12.35	0.05	0.15	-1.46	1.32	1.30	1.31	1.31	0.00	0.01	-0.01
100	13.55	10.07	10.36	10.52	0.16	0.45	-3.03	13.72	12.13	12.21	12.26	0.04	0.13	-1.46	1.31	1.29	1.30	1.30	0.00	0.01	-0.01
125	12.70	9.56	9.80	9.93	0.13	0.36	-2.77	13.55	11.99	12.05	12.09	0.04	0.10	-1.46	1.30	1.28	1.29	1.29	0.00	0.01	-0.01
150	12.11	9.21	9.41	9.51	0.11	0.30	-2.59	13.44	11.89	11.94	11.97	0.03	0.09	-1.47	1.29	1.28	1.28	1.28	0.00	0.01	-0.01
175	11.67	8.96	9.12	9.21	0.09	0.25	-2.47	13.35	11.82	11.86	11.89	0.03	0.07	-1.47	1.29	1.27	1.28	1.28	0.00	0.01	-0.01
200	11.35	8.76	8.90	8.98	0.08	0.22	-2.37	13.29	11.76	11.80	11.82	0.02	0.06	-1.47	1.28	1.27	1.27	1.27	0.00	0.00	-0.01
Receptor 37W – A275 at Wych Cross																					
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	27.10	18.70	19.93	20.64	0.71	1.94	-6.46	17.20	15.18	15.54	15.74	0.20	0.56	-1.46	1.57	1.53	1.55	1.57	0.01	0.04	0.00
5	19.43	13.96	14.63	15.02	0.38	1.06	-4.41	15.68	13.85	14.04	14.15	0.11	0.31	-1.52	1.46	1.43	1.45	1.45	0.01	0.02	-0.01
10	16.64	12.24	12.72	12.97	0.25	0.73	-3.67	15.12	13.37	13.50	13.58	0.08	0.21	-1.54	1.42	1.40	1.41	1.41	0.01	0.02	-0.01
15	15.17	11.34	11.71	11.90	0.19	0.56	-3.27	14.83	13.11	13.22	13.28	0.06	0.16	-1.55	1.40	1.38	1.39	1.39	0.00	0.01	-0.01
20	14.27	10.79	11.08	11.25	0.16	0.46	-3.02	14.65	12.96	13.04	13.09	0.05	0.13	-1.56	1.39	1.37	1.37	1.38	0.00	0.01	-0.01
30	13.23	10.14	10.37	10.48	0.12	0.34	-2.75	14.44	12.78	12.84	12.87	0.03	0.10	-1.57	1.37	1.36	1.36	1.36	0.00	0.01	-0.01
40	12.62	9.78	9.95	10.05	0.10	0.27	-2.57	14.32	12.67	12.72	12.75	0.03	0.08	-1.57	1.36	1.35	1.35	1.35	0.00	0.01	-0.01
50	12.24	9.54	9.69	9.77	0.08	0.22	-2.47	14.24	12.61	12.65	12.67	0.02	0.06	-1.57	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
60	11.97	9.38	9.51	9.57	0.07	0.20	-2.40	14.19	12.56	12.60	12.62	0.02	0.06	-1.57	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
70	11.78	9.26	9.37	9.43	0.06	0.17	-2.34	14.15	12.53	12.56	12.57	0.02	0.05	-1.57	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
80	11.62	9.16	9.27	9.32	0.05	0.15	-2.30	14.12	12.50	12.53	12.54	0.01	0.04	-1.57	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
90	11.50	9.09	9.18	9.23	0.05	0.14	-2.27	14.09	12.48	12.50	12.52	0.01	0.04	-1.58	1.35	1.33	1.34	1.34	0.00	0.00	-0.01
100	11.40	9.03	9.12	9.16	0.04	0.13	-2.24	14.07	12.46	12.49	12.50	0.01	0.04	-1.58	1.35	1.33	1.33	1.34	0.00	0.00	-0.01
125	11.22	8.92	8.99	9.03	0.03	0.11	-2.19	14.04	12.43	12.45	12.46	0.01	0.03	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
150	11.09	8.84	8.91	8.93	0.03	0.09	-2.16	14.01	12.41	12.43	12.43	0.01	0.03	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
175	11.00	8.78	8.84	8.87	0.02	0.08	-2.13	13.99	12.39	12.41	12.42	0.01	0.02	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
200	10.93	8.74	8.79	8.82	0.02	0.07	-2.11	13.98	12.38	12.39	12.40	0.01	0.02	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01

Receptor 37E – A275 at Wych Cross

	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	25.65	17.80	18.92	19.57	0.66	1.77	-6.08	16.91	14.93	15.25	15.44	0.19	0.51	-1.47	1.55	1.51	1.53	1.55	0.01	0.04	0.00
5	18.80	13.57	14.20	14.55	0.35	0.98	-4.25	15.55	13.74	13.92	14.02	0.10	0.28	-1.53	1.45	1.42	1.44	1.44	0.01	0.02	-0.01
10	16.23	12.00	12.45	12.70	0.25	0.70	-3.54	15.04	13.30	13.43	13.50	0.07	0.20	-1.54	1.41	1.39	1.40	1.41	0.01	0.01	-0.01
15	14.90	11.17	11.52	11.71	0.19	0.54	-3.18	14.77	13.07	13.16	13.22	0.05	0.15	-1.55	1.40	1.38	1.38	1.39	0.00	0.01	-0.01
20	14.05	10.66	10.95	11.11	0.17	0.45	-2.94	14.61	12.92	13.00	13.05	0.04	0.13	-1.56	1.38	1.37	1.37	1.37	0.00	0.01	-0.01
30	13.09	10.06	10.27	10.39	0.11	0.32	-2.71	14.41	12.75	12.81	12.85	0.03	0.09	-1.57	1.37	1.35	1.36	1.36	0.00	0.01	-0.01
40	12.53	9.72	9.89	9.98	0.09	0.26	-2.55	14.30	12.66	12.71	12.73	0.03	0.07	-1.57	1.36	1.35	1.35	1.35	0.00	0.01	-0.01
50	12.18	9.51	9.65	9.73	0.07	0.22	-2.45	14.23	12.60	12.64	12.66	0.02	0.06	-1.57	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
60	11.93	9.35	9.48	9.54	0.06	0.19	-2.39	14.18	12.55	12.59	12.61	0.02	0.05	-1.57	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
70	11.75	9.24	9.35	9.41	0.05	0.17	-2.34	14.14	12.52	12.55	12.57	0.02	0.05	-1.57	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
80	11.60	9.15	9.26	9.30	0.05	0.15	-2.30	14.11	12.50	12.53	12.54	0.01	0.04	-1.58	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
90	11.49	9.09	9.18	9.22	0.04	0.14	-2.27	14.09	12.48	12.50	12.52	0.01	0.04	-1.58	1.35	1.33	1.34	1.34	0.00	0.00	-0.01
100	11.40	9.03	9.12	9.16	0.04	0.13	-2.24	14.07	12.46	12.49	12.50	0.01	0.04	-1.58	1.35	1.33	1.33	1.34	0.00	0.00	-0.01
125	11.23	8.93	9.00	9.03	0.03	0.11	-2.20	14.04	12.43	12.45	12.46	0.01	0.03	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
150	11.12	8.86	8.93	8.95	0.03	0.09	-2.17	14.02	12.41	12.43	12.44	0.01	0.03	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
175	11.04	8.81	8.87	8.90	0.02	0.09	-2.15	14.00	12.40	12.42	12.42	0.01	0.02	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
200	10.98	8.77	8.83	8.85	0.02	0.08	-2.13	13.99	12.39	12.40	12.41	0.01	0.02	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01

Receptor 34 – A22 at Nutley

	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	52.42	32.83	35.67	36.22	0.55	3.39	-16.20	21.96	19.30	20.12	20.23	0.10	0.93	-1.74	1.91	1.82	1.88	1.89	0.01	0.07	-0.02
5	35.52	22.91	24.67	24.86	0.19	1.96	-10.65	18.86	16.59	17.08	17.14	0.06	0.56	-1.72	1.69	1.63	1.67	1.67	0.00	0.04	-0.02
10	27.98	18.50	19.76	19.89	0.14	1.39	-8.09	17.47	15.37	15.73	15.77	0.04	0.39	-1.70	1.59	1.54	1.57	1.57	0.00	0.03	-0.02
15	23.89	16.13	17.08	17.19	0.11	1.06	-6.70	16.70	14.72	14.99	15.02	0.03	0.30	-1.68	1.53	1.50	1.52	1.52	0.00	0.02	-0.02
20	21.32	14.62	15.39	15.50	0.11	0.88	-5.82	16.22	14.30	14.52	14.55	0.03	0.25	-1.67	1.50	1.47	1.48	1.48	0.00	0.02	-0.02
30	18.29	12.86	13.42	13.48	0.05	0.62	-4.81	15.65	13.81	13.97	13.99	0.02	0.18	-1.66	1.46	1.43	1.44	1.44	0.00	0.01	-0.01
40	16.54	11.85	12.30	12.36	0.05	0.51	-4.18	15.32	13.53	13.66	13.67	0.01	0.14	-1.65	1.43	1.41	1.42	1.42	0.00	0.01	-0.01
50	15.42	11.20	11.57	11.62	0.05	0.42	-3.80	15.11	13.35	13.46	13.47	0.01	0.12	-1.64	1.42	1.40	1.41	1.41	0.00	0.01	-0.01
60	14.63	10.73	11.05	11.08	0.03	0.35	-3.56	14.96	13.22	13.31	13.32	0.01	0.10	-1.64	1.41	1.39	1.40	1.40	0.00	0.01	-0.01
70	14.03	10.38	10.66	10.69	0.03	0.30	-3.35	14.85	13.12	13.20	13.21	0.01	0.09	-1.63	1.40	1.38	1.39	1.39	0.00	0.01	-0.01
80	13.57	10.12	10.36	10.39	0.03	0.27	-3.18	14.76	13.05	13.12	13.13	0.01	0.08	-1.63	1.39	1.38	1.38	1.38	0.00	0.01	-0.01
90	13.21	9.90	10.12	10.14	0.03	0.24	-3.07	14.69	12.99	13.05	13.06	0.01	0.07	-1.63	1.39	1.37	1.38	1.38	0.00	0.00	-0.01
100	12.91	9.73	9.93	9.95	0.02	0.22	-2.96	14.63	12.94	13.00	13.01	0.01	0.06	-1.63	1.39	1.37	1.37	1.37	0.00	0.00	-0.01
125	12.36	9.41	9.57	9.59	0.02	0.18	-2.77	14.53	12.85	12.90	12.90	0.01	0.05	-1.62	1.38	1.36	1.37	1.37	0.00	0.00	-0.01
150	11.98	9.19	9.32	9.33	0.01	0.14	-2.64	14.46	12.79	12.83	12.83	0.00	0.04	-1.62	1.37	1.36	1.36	1.36	0.00	0.00	-0.01
175	11.70	9.03	9.14	9.15	0.01	0.12	-2.55	14.40	12.75	12.78	12.78	0.00	0.04	-1.62	1.37	1.36	1.36	1.36	0.00	0.00	-0.01
200	11.49	8.90	9.00	9.01	0.01	0.11	-2.48	14.36	12.71	12.74	12.74	0.00	0.03	-1.62	1.37	1.35	1.35	1.36	0.00	0.00	-0.01

Receptor 33 – A22 at Wych Cross																				
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	39.24	25.44	27.50	27.75	0.25	2.30	-11.49	19.33	16.99	17.57	17.63	0.06	0.65	-1.70	1.72	1.66	1.70	1.70	0.00	0.05	-0.02
5	27.31	18.33	19.56	19.69	0.14	1.36	-7.61	17.08	15.03	15.38	15.41	0.03	0.38	-1.67	1.56	1.52	1.54	1.54	0.00	0.03	-0.02
10	22.37	15.39	16.25	16.34	0.08	0.95	-6.03	16.14	14.22	14.46	14.49	0.03	0.27	-1.65	1.49	1.46	1.48	1.48	0.00	0.02	-0.02
15	19.75	13.82	14.51	14.56	0.05	0.74	-5.18	15.63	13.79	13.98	14.00	0.02	0.21	-1.63	1.46	1.43	1.44	1.44	0.00	0.01	-0.01
20	18.08	12.82	13.39	13.44	0.05	0.62	-4.64	15.31	13.51	13.67	13.68	0.02	0.17	-1.63	1.43	1.41	1.42	1.42	0.00	0.01	-0.01
30	16.09	11.64	12.05	12.10	0.05	0.46	-3.98	14.93	13.19	13.30	13.31	0.01	0.13	-1.62	1.41	1.38	1.39	1.39	0.00	0.01	-0.01
40	14.94	10.97	11.31	11.34	0.03	0.37	-3.60	14.71	13.00	13.09	13.10	0.01	0.10	-1.61	1.39	1.37	1.38	1.38	0.00	0.01	-0.01
50	14.20	10.52	10.80	10.83	0.03	0.31	-3.37	14.57	12.88	12.95	12.96	0.01	0.09	-1.60	1.38	1.36	1.37	1.37	0.00	0.01	-0.01
60	13.66	10.21	10.45	10.47	0.02	0.27	-3.18	14.47	12.79	12.86	12.86	0.01	0.07	-1.60	1.37	1.36	1.36	1.36	0.00	0.01	-0.01
70	13.28	9.97	10.18	10.21	0.02	0.24	-3.07	14.39	12.73	12.79	12.79	0.01	0.06	-1.60	1.37	1.35	1.36	1.36	0.00	0.00	-0.01
80	12.96	9.79	9.98	10.00	0.02	0.21	-2.97	14.33	12.68	12.73	12.73	0.01	0.06	-1.60	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
90	12.71	9.64	9.81	9.83	0.02	0.19	-2.88	14.28	12.64	12.68	12.69	0.01	0.05	-1.60	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
100	12.51	9.52	9.67	9.69	0.02	0.18	-2.82	14.25	12.60	12.65	12.65	0.00	0.05	-1.59	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
125	12.13	9.29	9.42	9.43	0.01	0.15	-2.69	14.17	12.54	12.58	12.58	0.00	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
150	11.86	9.13	9.24	9.26	0.01	0.13	-2.61	14.12	12.50	12.53	12.53	0.00	0.03	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
175	11.67	9.02	9.11	9.13	0.01	0.11	-2.54	14.09	12.47	12.50	12.50	0.00	0.03	-1.59	1.35	1.33	1.34	1.34	0.00	0.00	-0.01
200	11.51	8.93	9.01	9.02	0.01	0.10	-2.49	14.06	12.45	12.47	12.47	0.00	0.03	-1.59	1.35	1.33	1.33	1.33	0.00	0.00	-0.01

Receptor 6b_37_33 – Junction of A22 and A275																				
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	41.87	27.23	29.51	30.22	0.71	2.99	-11.65	19.74	17.34	17.97	18.16	0.19	0.82	-1.59	1.75	1.68	1.73	1.74	0.01	0.06	-0.01
5	35.43	23.41	25.23	25.74	0.52	2.34	-9.68	18.62	16.37	16.88	17.02	0.14	0.65	-1.61	1.67	1.61	1.65	1.66	0.01	0.05	-0.01
10	31.90	21.29	22.85	23.26	0.41	1.97	-8.64	17.99	15.83	16.27	16.38	0.11	0.55	-1.61	1.63	1.57	1.60	1.61	0.01	0.04	-0.01
15	29.64	19.93	21.32	21.68	0.35	1.75	-7.96	17.58	15.47	15.87	15.97	0.10	0.50	-1.61	1.60	1.55	1.58	1.58	0.01	0.04	-0.01
20	27.86	18.88	20.15	20.48	0.33	1.59	-7.39	17.25	15.19	15.55	15.64	0.09	0.45	-1.61	1.57	1.53	1.55	1.56	0.01	0.03	-0.01
30	25.22	17.30	18.37	18.65	0.27	1.35	-6.57	16.75	14.76	15.07	15.14	0.08	0.38	-1.61	1.54	1.50	1.52	1.52	0.01	0.03	-0.01
40	23.17	16.07	17.01	17.25	0.25	1.18	-5.91	16.36	14.42	14.69	14.75	0.07	0.33	-1.61	1.51	1.47	1.49	1.50	0.00	0.02	-0.01
50	21.56	15.11	15.92	16.14	0.22	1.03	-5.42	16.05	14.15	14.39	14.44	0.06	0.29	-1.60	1.49	1.45	1.47	1.47	0.00	0.02	-0.01
60	20.30	14.36	15.07	15.26	0.19	0.91	-5.04	15.80	13.94	14.15	14.20	0.05	0.26	-1.60	1.47	1.44	1.45	1.46	0.00	0.02	-0.01
70	19.29	13.75	14.42	14.58	0.16	0.83	-4.71	15.61	13.78	13.96	14.01	0.05	0.24	-1.60	1.45	1.43	1.44	1.44	0.00	0.02	-0.01
80	18.44	13.25	13.84	14.01	0.16	0.76	-4.44	15.44	13.64	13.81	13.85	0.04	0.21	-1.59	1.44	1.42	1.43	1.43	0.00	0.02	-0.01
90	17.73	12.82	13.35	13.51	0.16	0.69	-4.22	15.31	13.52	13.67	13.71	0.04	0.20	-1.59	1.43	1.41	1.42	1.42	0.00	0.01	-0.01
100	17.13	12.46	12.97	13.10	0.14	0.64	-4.03	15.19	13.42	13.56	13.60	0.04	0.18	-1.59	1.43	1.40	1.41	1.41	0.00	0.01	-0.01
125	15.88	11.72	12.12	12.23	0.11	0.51	-3.65	14.95	13.21	13.33	13.36	0.03	0.15	-1.59	1.41	1.39	1.39	1.40	0.00	0.01	-0.01
150	14.98	11.17	11.52	11.60	0.08	0.44	-3.37	14.77	13.06	13.16	13.18	0.03	0.12	-1.59	1.40	1.38	1.38	1.38	0.00	0.01	-0.01
175	14.27	10.75	11.06	11.14	0.08	0.38	-3.13	14.63	12.94	13.03	13.05	0.02	0.11	-1.58	1.39	1.37	1.37	1.38	0.00	0.01	-0.01
200	13.72	10.42	10.68	10.75	0.07	0.33	-2.97	14.53	12.85	12.92	12.94	0.02	0.09	-1.58	1.38	1.36	1.37	1.37	0.00	0.01	-0.01

Receptor 6b - A22 at Royal Ashdown Forest Golf Course																				
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
3	33.09	21.74	23.31	23.64	0.33	1.90	-9.44	18.10	15.90	16.35	16.44	0.09	0.54	-1.65	1.63	1.58	1.61	1.62	0.01	0.04	-0.02
8	25.55	17.30	18.35	18.56	0.22	1.27	-6.99	16.67	14.67	14.97	15.03	0.06	0.36	-1.64	1.53	1.49	1.51	1.52	0.00	0.03	-0.01
13	21.81	15.11	15.89	16.05	0.16	0.94	-5.76	15.96	14.07	14.29	14.34	0.05	0.27	-1.63	1.48	1.45	1.47	1.47	0.00	0.02	-0.01
18	19.60	13.81	14.44	14.55	0.11	0.74	-5.05	15.54	13.70	13.89	13.92	0.04	0.22	-1.62	1.45	1.42	1.44	1.44	0.00	0.02	-0.01
23	18.13	12.95	13.49	13.57	0.08	0.62	-4.56	15.26	13.47	13.62	13.65	0.03	0.18	-1.61	1.43	1.41	1.42	1.42	0.00	0.01	-0.01
33	16.30	11.88	12.29	12.37	0.08	0.49	-3.93	14.91	13.17	13.28	13.31	0.02	0.14	-1.60	1.41	1.38	1.39	1.39	0.00	0.01	-0.01
43	15.20	11.24	11.55	11.63	0.08	0.39	-3.57	14.70	12.99	13.08	13.10	0.02	0.11	-1.60	1.39	1.37	1.38	1.38	0.00	0.01	-0.01
53	14.47	10.81	11.08	11.13	0.05	0.32	-3.33	14.56	12.87	12.95	12.96	0.01	0.09	-1.60	1.38	1.36	1.37	1.37	0.00	0.01	-0.01
63	13.95	10.51	10.74	10.78	0.05	0.28	-3.16	14.46	12.79	12.85	12.87	0.01	0.08	-1.59	1.38	1.36	1.36	1.36	0.00	0.01	-0.01
73	13.54	10.28	10.48	10.52	0.04	0.25	-3.02	14.38	12.72	12.78	12.79	0.01	0.07	-1.59	1.37	1.35	1.36	1.36	0.00	0.00	-0.01
83	13.25	10.10	10.28	10.31	0.04	0.22	-2.93	14.33	12.67	12.72	12.73	0.01	0.06	-1.59	1.37	1.35	1.35	1.35	0.00	0.00	-0.01
93	13.00	9.95	10.12	10.15	0.04	0.20	-2.85	14.28	12.63	12.68	12.69	0.01	0.06	-1.59	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
103	12.80	9.84	9.98	10.02	0.03	0.18	-2.78	14.24	12.60	12.64	12.65	0.01	0.05	-1.59	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
128	12.42	9.62	9.74	9.77	0.03	0.15	-2.66	14.17	12.54	12.57	12.58	0.01	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
153	12.16	9.46	9.57	9.59	0.02	0.13	-2.57	14.12	12.50	12.52	12.53	0.01	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
178	11.97	9.35	9.44	9.46	0.02	0.11	-2.51	14.08	12.46	12.49	12.49	0.01	0.03	-1.58	1.35	1.33	1.34	1.34	0.00	0.00	-0.01
203	11.83	9.27	9.35	9.36	0.02	0.10	-2.47	14.05	12.44	12.46	12.47	0.01	0.03	-1.58	1.35	1.33	1.33	1.33	0.00	0.00	-0.01
Receptor 6aSW – A22 at Royal Ashdown Forest Golf Course																				
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	52.74	33.68	36.72	37.27	0.55	3.58	-15.48	21.00	18.41	19.16	19.31	0.15	0.90	-1.69	1.84	1.76	1.81	1.82	0.01	0.06	-0.02
5	33.47	22.07	23.70	24.02	0.33	1.96	-9.44	17.76	15.58	15.99	16.07	0.08	0.49	-1.68	1.61	1.56	1.59	1.59	0.01	0.04	-0.02
10	26.29	17.80	18.92	19.14	0.22	1.34	-7.15	16.53	14.53	14.81	14.87	0.06	0.34	-1.66	1.52	1.48	1.50	1.51	0.00	0.02	-0.02
15	22.52	15.58	16.41	16.60	0.19	1.02	-5.92	15.89	13.98	14.20	14.24	0.04	0.26	-1.65	1.48	1.44	1.46	1.46	0.00	0.02	-0.02
20	20.20	14.20	14.88	15.02	0.14	0.82	-5.18	15.49	13.64	13.82	13.85	0.03	0.21	-1.63	1.45	1.42	1.43	1.43	0.00	0.01	-0.01
30	17.50	12.61	13.10	13.19	0.08	0.57	-4.31	15.02	13.25	13.38	13.40	0.02	0.15	-1.62	1.42	1.39	1.40	1.40	0.00	0.01	-0.01
40	15.97	11.72	12.09	12.18	0.08	0.46	-3.79	14.76	13.03	13.13	13.15	0.02	0.12	-1.61	1.40	1.38	1.38	1.38	0.00	0.01	-0.01
50	15.01	11.15	11.47	11.52	0.05	0.37	-3.49	14.59	12.89	12.97	12.98	0.02	0.09	-1.60	1.38	1.37	1.37	1.37	0.00	0.01	-0.01
60	14.33	10.75	11.01	11.06	0.05	0.31	-3.27	14.47	12.79	12.86	12.87	0.01	0.08	-1.60	1.38	1.36	1.36	1.36	0.00	0.01	-0.01
70	13.84	10.46	10.68	10.73	0.05	0.27	-3.11	14.39	12.72	12.78	12.79	0.01	0.07	-1.60	1.37	1.35	1.36	1.36	0.00	0.00	-0.01
80	13.46	10.24	10.43	10.47	0.04	0.24	-2.98	14.32	12.66	12.71	12.73	0.01	0.06	-1.59	1.37	1.35	1.35	1.35	0.00	0.00	-0.01
90	13.17	10.06	10.24	10.27	0.04	0.21	-2.90	14.27	12.62	12.67	12.67	0.01	0.05	-1.59	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
100	12.93	9.92	10.08	10.11	0.03	0.19	-2.82	14.23	12.59	12.63	12.63	0.01	0.05	-1.59	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
125	12.49	9.66	9.78	9.81	0.03	0.15	-2.68	14.15	12.52	12.55	12.56	0.01	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
150	12.19	9.48	9.59	9.61	0.02	0.13	-2.58	14.10	12.48	12.50	12.51	0.01	0.03	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
175	11.98	9.36	9.45	9.47	0.02	0.11	-2.51	14.06	12.45	12.47	12.47	0.00	0.03	-1.59	1.35	1.33	1.34	1.34	0.00	0.00	-0.01
200	11.82	9.26	9.34	9.36	0.02	0.10	-2.46	14.03	12.42	12.44	12.45	0.01	0.03	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01

Receptor 6aSE – A22 at Royal Ashdown Forest Golf Course																			
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	62.84	39.74	43.54	44.09	0.55	4.35	-18.75	22.64	19.87	20.80	20.97	0.17	1.10	-1.67	1.96	1.86	1.93	1.94	0.01	0.08	-0.02
5	39.37	25.62	27.63	28.06	0.44	2.45	-11.30	18.75	16.45	16.96	17.06	0.10	0.62	-1.69	1.68	1.62	1.66	1.66	0.01	0.04	-0.02
10	30.66	20.44	21.87	22.14	0.27	1.70	-8.52	17.28	15.18	15.54	15.61	0.07	0.43	-1.67	1.58	1.53	1.55	1.56	0.01	0.03	-0.02
15	26.15	17.75	18.84	19.08	0.25	1.33	-7.07	16.51	14.52	14.80	14.86	0.06	0.34	-1.65	1.52	1.48	1.50	1.51	0.00	0.02	-0.02
20	23.34	16.08	16.98	17.17	0.19	1.09	-6.17	16.03	14.11	14.34	14.38	0.05	0.28	-1.64	1.49	1.45	1.47	1.47	0.00	0.02	-0.02
30	20.06	14.13	14.80	14.93	0.14	0.80	-5.13	15.46	13.63	13.80	13.83	0.03	0.20	-1.63	1.45	1.42	1.43	1.43	0.00	0.01	-0.01
40	18.21	13.04	13.57	13.68	0.11	0.64	-4.53	15.14	13.36	13.49	13.52	0.03	0.16	-1.62	1.42	1.40	1.41	1.41	0.00	0.01	-0.01
50	17.03	12.35	12.80	12.89	0.08	0.54	-4.15	14.94	13.19	13.30	13.33	0.02	0.14	-1.62	1.41	1.39	1.39	1.40	0.00	0.01	-0.01
60	16.24	11.87	12.26	12.34	0.08	0.47	-3.90	14.80	13.07	13.17	13.19	0.02	0.12	-1.61	1.40	1.38	1.39	1.39	0.00	0.01	-0.01
70	15.64	11.52	11.88	11.96	0.08	0.44	-3.68	14.70	12.98	13.07	13.09	0.02	0.11	-1.61	1.39	1.37	1.38	1.38	0.00	0.01	-0.01
80	15.20	11.26	11.58	11.63	0.05	0.37	-3.57	14.62	12.92	13.00	13.02	0.02	0.10	-1.61	1.39	1.37	1.37	1.37	0.00	0.01	-0.01
90	14.85	11.05	11.36	11.41	0.05	0.36	-3.44	14.56	12.87	12.94	12.96	0.01	0.09	-1.60	1.38	1.36	1.37	1.37	0.00	0.01	-0.01
100	14.55	10.88	11.16	11.21	0.06	0.33	-3.34	14.51	12.82	12.90	12.91	0.01	0.09	-1.60	1.38	1.36	1.37	1.37	0.00	0.01	-0.01
125	14.03	10.57	10.81	10.85	0.05	0.28	-3.18	14.42	12.75	12.81	12.82	0.01	0.07	-1.60	1.37	1.35	1.36	1.36	0.00	0.01	-0.01
150	13.65	10.35	10.56	10.60	0.04	0.25	-3.04	14.35	12.69	12.75	12.76	0.01	0.07	-1.60	1.37	1.35	1.35	1.36	0.00	0.00	-0.01
175	13.38	10.19	10.37	10.42	0.04	0.23	-2.96	14.31	12.65	12.70	12.71	0.01	0.06	-1.59	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
200	13.15	10.05	10.22	10.26	0.04	0.21	-2.89	14.27	12.62	12.66	12.67	0.01	0.05	-1.59	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
Receptor 6aNE – A22 at Royal Ashdown Forest Golf Course																			
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	51.08	32.71	35.59	36.25	0.66	3.54	-14.83	20.77	18.22	18.94	19.09	0.15	0.87	-1.67	1.82	1.74	1.80	1.81	0.01	0.06	-0.02
5	34.10	22.46	24.12	24.48	0.35	2.02	-9.62	17.91	15.72	16.15	16.23	0.08	0.51	-1.68	1.62	1.57	1.60	1.60	0.01	0.04	-0.02
10	27.16	18.34	19.54	19.78	0.25	1.45	-7.38	16.74	14.71	15.02	15.08	0.06	0.36	-1.66	1.54	1.49	1.52	1.52	0.00	0.03	-0.02
15	23.45	16.13	17.05	17.25	0.19	1.11	-6.20	16.10	14.17	14.41	14.45	0.05	0.28	-1.65	1.49	1.46	1.47	1.48	0.00	0.02	-0.01
20	21.13	14.74	15.50	15.66	0.16	0.92	-5.47	15.70	13.83	14.02	14.06	0.04	0.23	-1.64	1.46	1.43	1.45	1.45	0.00	0.02	-0.01
30	18.32	13.08	13.64	13.75	0.11	0.67	-4.57	15.21	13.42	13.56	13.59	0.03	0.17	-1.63	1.43	1.40	1.41	1.41	0.00	0.01	-0.01
40	16.68	12.12	12.55	12.66	0.11	0.54	-4.02	14.93	13.18	13.29	13.32	0.02	0.14	-1.62	1.41	1.38	1.39	1.39	0.00	0.01	-0.01
50	15.61	11.48	11.84	11.92	0.08	0.44	-3.69	14.75	13.02	13.12	13.14	0.02	0.11	-1.61	1.39	1.37	1.38	1.38	0.00	0.01	-0.01
60	14.88	11.04	11.35	11.43	0.08	0.39	-3.45	14.62	12.91	12.99	13.01	0.02	0.10	-1.61	1.38	1.37	1.37	1.37	0.00	0.01	-0.01
70	14.30	10.70	10.98	11.04	0.06	0.33	-3.27	14.52	12.83	12.90	12.92	0.02	0.09	-1.60	1.38	1.36	1.37	1.37	0.00	0.01	-0.01
80	13.87	10.44	10.69	10.74	0.05	0.30	-3.13	14.44	12.76	12.83	12.84	0.01	0.08	-1.60	1.37	1.36	1.36	1.36	0.00	0.01	-0.01
90	13.51	10.23	10.46	10.50	0.05	0.27	-3.01	14.38	12.71	12.77	12.78	0.01	0.07	-1.60	1.37	1.35	1.36	1.36	0.00	0.00	-0.01
100	13.21	10.06	10.26	10.31	0.04	0.24	-2.91	14.33	12.67	12.72	12.73	0.01	0.06	-1.60	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
125	12.69	9.75	9.91	9.95	0.03	0.20	-2.74	14.24	12.59	12.64	12.64	0.01	0.05	-1.59	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
150	12.32	9.53	9.67	9.70	0.03	0.16	-2.62	14.17	12.54	12.57	12.58	0.01	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
175	12.05	9.37	9.49	9.52	0.02	0.14	-2.54	14.13	12.50	12.53	12.54	0.01	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
200	11.85	9.25	9.36	9.38	0.02	0.13	-2.47	14.09	12.47	12.50	12.50	0.01	0.03	-1.59	1.35	1.33	1.34	1.34	0.00	0.00	-0.01

Receptor 33N – A22 at Wych Cross																				
	Annual Mean NOx (ug/m³)							Annual Mean Total N Dep (kg N/ha/yr)							Annual Mean Total N Acid Dep (keq/ha/yr)						
Distance	BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change			BL	Proj BL	DN	DS	Change		
From Road (m)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)	Baseline	Proj Baseline	(Base 2033)	(Scn1 2033)	(DS-DN)	(DS-ProjBL)	(DS-BL)
0	37.40	24.56	26.50	26.69	0.19	2.13	-10.71	19.00	16.72	17.27	17.33	0.06	0.60	-1.68	1.70	1.64	1.68	1.68	0.00	0.04	-0.02
5	26.02	17.73	18.86	18.97	0.11	1.23	-7.05	16.84	14.84	15.16	15.19	0.03	0.35	-1.65	1.54	1.50	1.53	1.53	0.00	0.03	-0.01
10	21.40	14.97	15.77	15.85	0.08	0.88	-5.55	15.96	14.08	14.30	14.33	0.02	0.25	-1.63	1.48	1.45	1.47	1.47	0.00	0.02	-0.01
15	18.94	13.50	14.11	14.19	0.08	0.69	-4.76	15.49	13.67	13.85	13.86	0.02	0.19	-1.62	1.45	1.42	1.43	1.43	0.00	0.01	-0.01
20	17.39	12.57	13.07	13.12	0.05	0.56	-4.27	15.19	13.41	13.56	13.57	0.02	0.16	-1.62	1.43	1.40	1.41	1.41	0.00	0.01	-0.01
30	15.53	11.47	11.84	11.87	0.03	0.40	-3.67	14.83	13.11	13.21	13.22	0.01	0.12	-1.61	1.40	1.38	1.39	1.39	0.00	0.01	-0.01
40	14.47	10.84	11.13	11.16	0.03	0.32	-3.31	14.63	12.93	13.02	13.03	0.01	0.09	-1.60	1.39	1.37	1.37	1.37	0.00	0.01	-0.01
50	13.79	10.42	10.67	10.69	0.03	0.27	-3.09	14.49	12.82	12.89	12.90	0.01	0.08	-1.60	1.38	1.36	1.36	1.36	0.00	0.01	-0.01
60	13.29	10.13	10.34	10.37	0.02	0.23	-2.93	14.40	12.74	12.80	12.80	0.01	0.07	-1.59	1.37	1.35	1.36	1.36	0.00	0.00	-0.01
70	12.95	9.92	10.10	10.12	0.02	0.20	-2.82	14.33	12.68	12.73	12.74	0.01	0.06	-1.59	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
80	12.67	9.75	9.92	9.94	0.02	0.18	-2.73	14.28	12.63	12.68	12.68	0.01	0.05	-1.59	1.36	1.35	1.35	1.35	0.00	0.00	-0.01
90	12.45	9.62	9.77	9.79	0.02	0.16	-2.66	14.23	12.60	12.64	12.64	0.00	0.05	-1.59	1.36	1.34	1.35	1.35	0.00	0.00	-0.01
100	12.27	9.52	9.65	9.67	0.02	0.15	-2.60	14.20	12.57	12.60	12.61	0.00	0.04	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
125	11.94	9.32	9.43	9.44	0.01	0.12	-2.50	14.13	12.51	12.54	12.55	0.00	0.03	-1.59	1.35	1.34	1.34	1.34	0.00	0.00	-0.01
150	11.71	9.18	9.28	9.29	0.01	0.11	-2.42	14.09	12.47	12.50	12.50	0.00	0.03	-1.59	1.35	1.33	1.34	1.34	0.00	0.00	-0.01
175	11.54	9.08	9.16	9.18	0.01	0.09	-2.37	14.06	12.45	12.47	12.47	0.00	0.03	-1.59	1.34	1.33	1.33	1.33	0.00	0.00	-0.01
200	11.42	9.01	9.08	9.09	0.01	0.08	-2.33	14.03	12.42	12.45	12.45	0.00	0.02	-1.58	1.34	1.33	1.33	1.33	0.00	0.00	-0.01

Appendix B. Extract from Caporn et al (2010)

Table 21 of Caporn et al (2010): Summary of relationships between long-term nitrogen deposition and species richness by habitat expressed as the amount of incremental N deposition (in kg N ha^{-1} yr^{-1}) associated with a reduction in species richness of one species along the survey gradient sites. Modelled relationship only applied over N deposition range in which survey sites occurred; where no sites were surveyed at a given N deposition level '-' is shown.

Survey/ Habitat/	Max. species richness	Habitat/ species critical load kg N ha^{-1} yr^{-1}	Increase in N deposition (in kg N ha^{-1} yr^{-1}) required to reduce measured species richness by 1 at different background long-term N deposition levels					
			5 kg N	10 kg N	15 kg N	20 kg N	25 kg N	30 kg N
Upland heath (TU 2009)								
Total species richness	42 spp.	10-20	0.4 kg	0.8 kg	1.3 kg	1.7 kg	2.0 kg	2.4 kg
Upland heath (MRS)*								
Total species richness	16 spp.	10-20	1.7 kg	2.0 kg	2.5 kg	3.3 kg	5.0 kg	20.0 kg
Lowland heath (TU 2009)								
Total species richness	37 spp.	10-20	0.4 kg	0.8 kg	1.3 kg	1.7 kg	2.0 kg	2.4 kg
Bog (TU 2009)								
Total species richness	32 spp.	5-10	3.3 kg					
Sand dunes (TU 2009, all sites)								
Total species richness	77 spp.	8-15	0.1 kg	0.5 kg	1.1 kg	2.0 kg	-	-
Sand dunes TU 2009 (pH ≥6.5)								
Total species richness	77 spp.	8-15	0.3 kg	0.6 kg	0.9 kg	1.3 kg	-	-
Sand dunes TU 2009 + 2002 (Fixed dune grasslands)								
Total species richness	77 spp.	8-15	0.3 kg	0.6 kg	0.9 kg	1.3 kg	-	-
Acid grasslands (BEGIN)								
Total species richness	42 spp.	10-15	1.7 kg	1.7 kg	2.0 kg	2.0 kg	2.5 kg	2.5 kg

*in the upland heath MRS survey quadrat size was 0.5 x 0.5 m. This produced different results than the other surveys which used 2 x 2 m quadrats.

Appendix C. Annual Drop-off Calculations for Intermediate Years between 2017 and 2033

AECOM was asked to undertake calculations for intervening years between 2017 and 2033 (rather than simply the start year of 2017 and end year of 2033) in order to show whether NOx emissions in any given year would increase for any period before a decrease was observed.

Traffic flow data for the interim years were derived from the 2033 traffic modelling for Tunbridge Wells Local Plan in late 2017. EFT v8.0.1 has been used to calculate annual drop off calculations to determine if there is a risk of an intermediate year having higher emissions than the scenarios currently tested by AECOM, although the latest modelling work for Ashdown Forest has used EFT v8.0.0. The differences in the EFT from V8.0.0 to v8.0.1 are reproduced below and should not affect this analysis. To confirm this interpretation the base 2017 and DN/DS 2033 traffic data used in the previous assessment has been reprocessed to confirm the suitability for comparison of the different EFT versions. Changes from EFT v8.0.0 to EFT v8.0.1:

- Bug fix to correct the bus and coach split on London roads when entering data using the Alternative Technologies traffic format input option only.
- Bug fixes to allow compatibility with Excel 2007 and 64-bit instances of Excel.

The drop off calculations have been calculated on the same basis as the 2033 assessment method utilised for the previous assessments, with only partial improvements assumed compared to DEFRA predictions. The emission year associated with each year of traffic data is as follows:

- Base 2017 traffic with 2017 emissions;
- 2020 traffic with 2018 emissions;
- 2023 traffic with 2019 emissions;
- 2025 traffic with 2020 emissions;
- 2028 traffic with 2021 emissions;
- 2031 traffic with 2022 emissions; and
- 2033 traffic with 2023 emissions (as presented in the assessments).

The following graphs, presented separately for the ‘with’ (DS) and ‘without’ (DN) plan scenarios, show the emissions per link for each of the above scenarios.

Figure 1. NOx Emission Rate (g/km/s) Per Year Per Link in DN Scenario

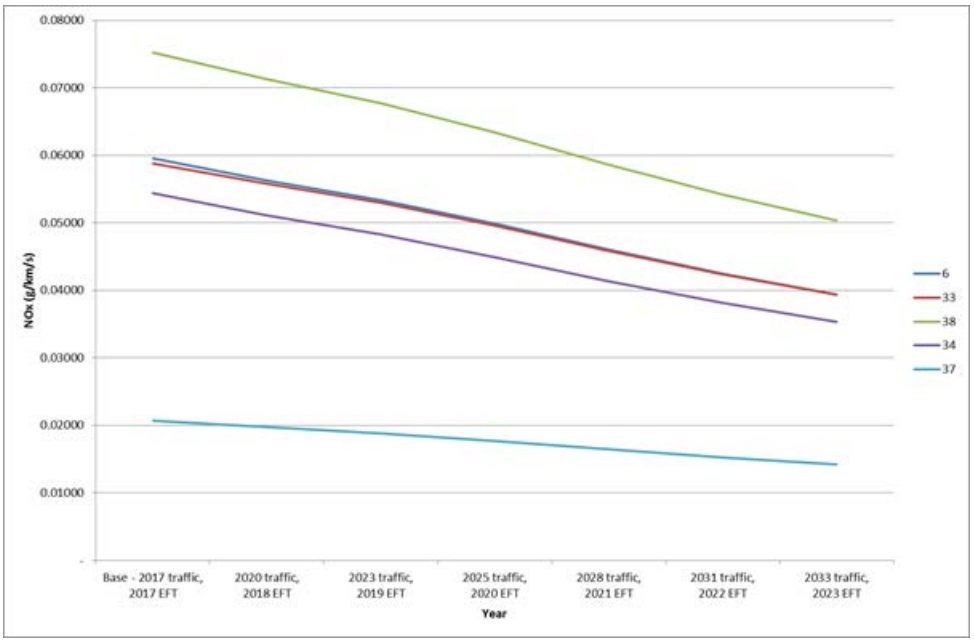
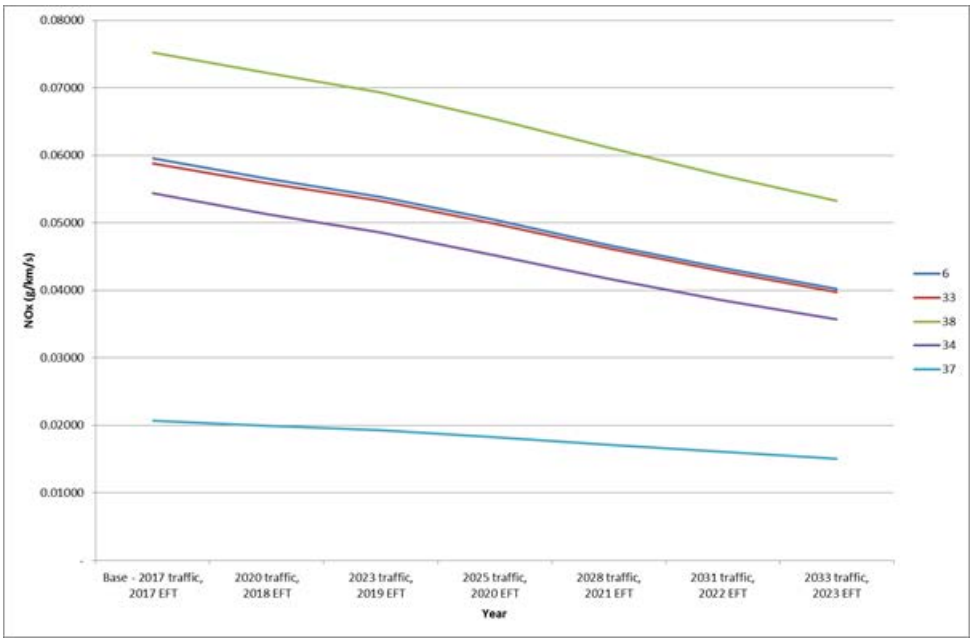


Figure 1 demonstrates that, for the DN scenario (i.e. all growth except Tunbridge Wells Local Plan, Lewes JCS and South Downs Local Plan), emission rates are projected to fall year on year for each link included in the AECOM modelling despite the growth in traffic projected in the DN scenario. Each coloured line below represents a separate link.

This effect is also present, although slightly less pronounced, in Figure 2, which represents the DS scenarios. The year on year fall in emissions trend remains the same. The effect is slightly less pronounced than in the DN graph due to the additional traffic from the Local Plans that are incorporated into the DS traffic flows.

Figure 2. NOx Emission Rate (g/km/s) Per Year Per Link in DS Scenario



This analysis has not been carried through into a dispersion model assessment as it is considered this presentation of emission rates clearly falling is sufficient to illustrate that despite the increase in vehicle numbers in the future the increases under the AECOM analysis approach are not of sufficient magnitude to result in an increase in emissions.

Summary

The interim year emissions calculations demonstrate that there are no points where the increase in traffic due to growth or the local plan offsets the improvements in emission rates over time (using conservative assumptions on improvements in emission rates). Therefore no change to standard assessment practice of considering the full plan period is proposed.

It is also essential to note that for vegetation long-term trends in air quality are more important than short-term fluctuations. The ecological effects of nitrogen deposition are most associated with persistent long-term exposure (i.e. many years). Whether growth will result (for example) in an increase in nitrogen deposition for a couple of years before improvements in emission factors and background rates 'catch up' would be less important than whether there will be a persistent net increase or decrease in deposition over the plan period.

Appendix D. Modelling ammonia emissions from traffic

Data Sources

The ammonia modelling has used 2015 road transport emission factors from the National Atmospheric Emissions Inventory website (NAEI, latest available data). This document produces average ammonia emission factors for various types of transport and environments in grams per kilometre (g/km). The NAEI road transport emission factors include average speed throughout the UK and the speeds used to derive these g/km emission rates may be different to the speeds used in the air quality model but this is a known limitation of the ammonia modelling.

Concentration data for the ammonia modelling from AQC transects has been made available in the partially redacted report however the coordinates of the monitoring locations have not been provided. All of the images and data relating the transects and location of the NH_3 sensors has been redacted save for the NO_2 monitored data maps (Figures A1.35 and A1.36 on pages 242/243 of AQC report). This NO_2 monitoring map has been used this to identify the location of the transects as both NO_2 and NH_3 were monitored on the transects. The transects have been identified from the following information:

- Transect 4 ends in monitoring location T18 and is near one of the AECOM modelled roads although NH_3 was not measured on this transect;
- Transect 1 is the only transect extending west as stated on page 14 of the AQC report;
- Transect 2 is opposite transect one as on page 88 it states "*The pattern of fall-off is much steeper for Transect 1 than for Transect 2 , which may reflect the influence of prevailing wind direction on roadside concentrations*"; and
- Transect 3 has "*relatively lower traffic volumes than the roads beside the other transects*" so must be located in isolation away from the other transects.

The AECOM model does not have a modelled link next to transect 3 therefore only transects 1 and 2 have been used to verify NH_3 predictions.

The coordinates for the NH_3 monitoring locations on transect 1 and 2 have been approximated as the specific coordinates for the monitored locations have been redacted. The approximate locations have been confirmed in Google Earth as the measurements sites are visible. These have been informed by the angle from the road in the NO_2 monitoring figure, distance from the road in the AQC report and given a height of 2m as the AQC report states that all ALPHA NH_3 models were at 2m.

A background concentration of 0.6 ug/m^3 has been used from the NH_3 DELTA samplers in the AQC report which states that these were background locations.

The NH_3 measurement data in transects 1 and 2 as used in the verification are presented in Table 2.

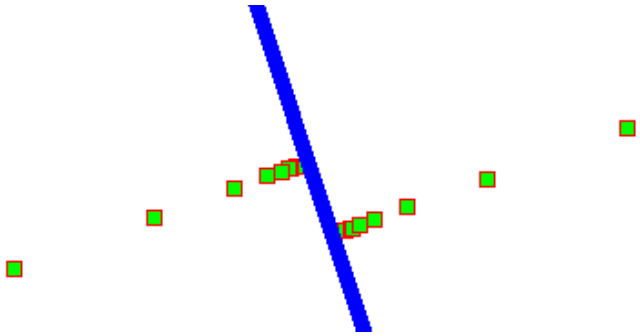
Table 2. Ammonia Monitoring

Transect	Distance from Road (m)	Measured Concentration (µg/m^3)
Transect 1	1.7	1.7
	2.5	1.3

	5.0	0.9
	10	0.9
	22	0.7
	100	0.6
Transect 2	1.7	1.4
	2.5	1.3
	5.0	1.0
	10	0.9
	22	0.7
	100	0.8

Source: AQC report- Ashdown Forest SAC, Air Quality Monitoring and Modelling, October 2017

Transects 1 and 2 are represented in the ADMS-Roads model as follows, with Transect 1 to the west, upwind of the road, and Transect 2 to the east, down wind of the road.



If the road was a notable source of ammonia it would be anticipated that Transect 2, as the downwind transect, would have higher concentrations than Transect 1. Whereas the measurement data shows the opposite trend at the closest points, with slightly higher ammonia concentrations upwind and identical concentrations at 5m.

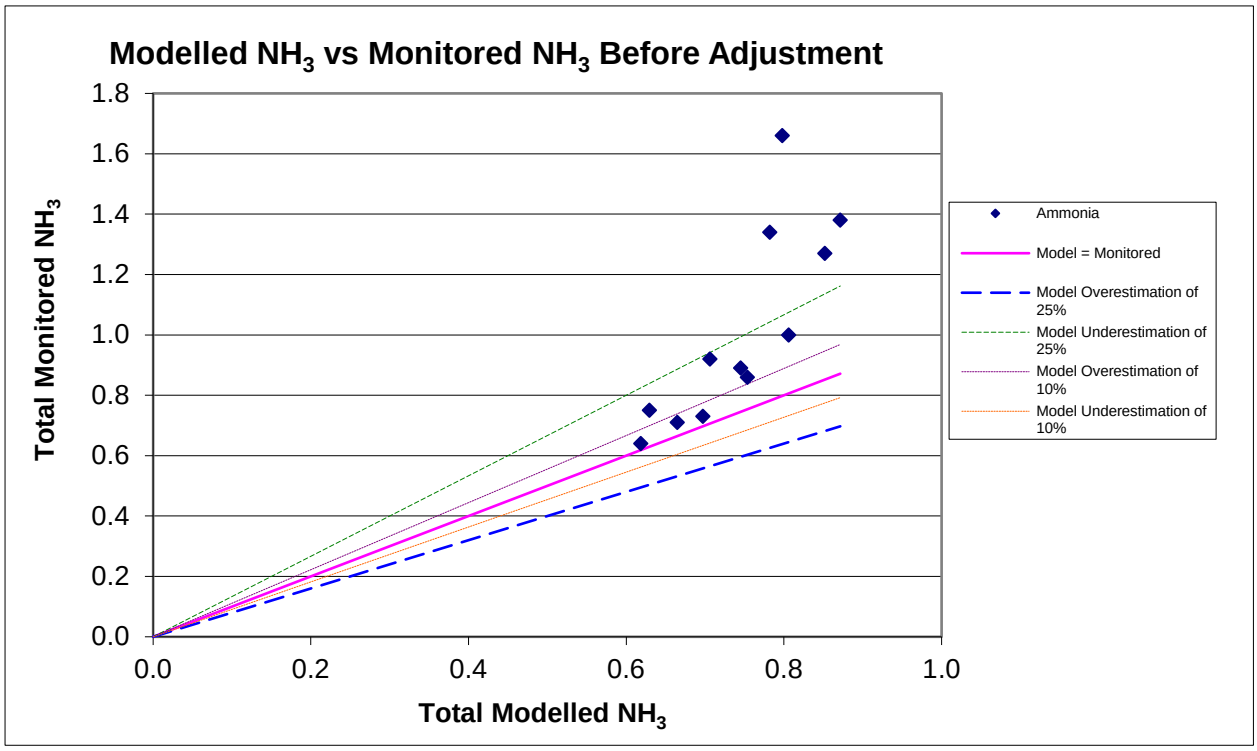
It can also be seen that concentrations of ammonia are very similar to measured background ammonia concentrations of 0.6 µg/m^3 beyond 20m from the road. Any ammonia emissions due to the road are therefore considered to be observable in the measured data, but the patterns are less clear than would be expected from key road traffic pollutants (i.e. NOx), even at the measurement points within 5m of the road and they are largely imperceptible beyond 20m.

The monitoring also shows an increase in ammonia concentrations at 100m on Transect 2, compared to closer points. This indicates that there is likely to be another source of ammonia in the vicinity of the monitoring and shows that other sources of ammonia may be more important locally than the road network.

Verification

Ammonia emissions were input based on a representative vehicle split for rural England in 2015 using data on vehicle fleet from the Emission Factor Toolkit published by Defra, and maintaining the light duty vehicle/heavy duty vehicle (LDV/HDV) split in the traffic data provided, using hot exhaust emission factors only from the NAEI 2015 road transport emission factors.

Plotting monitored vs modelled total NH_3 concentrations before any correction showed two clear patterns of behaviour with four points notably out of agreement with the rest of the dataset. These four points are the two closest points of each transect (at 1.7 and 2.5m) where concentrations are notably higher along with higher adjustment factors.



Using these input data an adjustment factor of **2.94** was calculated, with an RMSE of 0.2.

The adjustment of the ammonia model highlights that the ammonia model is less accurate close to the road source (e.g. at 1.7-2.5m from the road source). This supports the above observations of the measured ammonia concentrations that concentrations are most notably higher than background concentrations very close to the roads, as there is a larger under prediction at these verification locations closer to the road source. This under prediction doesn't appear to be due to canyoning effects as it is fairly open at this location. The resultant verification factor, if applied elsewhere, is therefore conservative as these closest points are included within the overall factor derived above.

Therefore, any ammonia predictions beyond this distance are likely to overestimate ammonia contributions, and beyond 20m, unless the road source is a much larger road than here, ammonia road contributions may not in reality be discernible at the ecosystem compared to normal ammonia background concentrations.

Assessment

Modelling has also been carried out to predict concentrations of ammonia and the influence of ammonia on nitrogen deposition rates using the methodology outlined above with the following assumptions for the assessment year:

- 2033 with and without the local plan traffic flows;
- 2023 traffic fleet mix (in keeping with NOx predictions);
- 2015 ammonia emission rates (as projected rates are not available from the NAEI); and
- Measured background concentration of 0.6 µg/m^3 (as projected concentrations are not available).

The contribution of ammonia to total nitrogen deposition was calculated using a deposition rate for ammonia of 0.02 m/s, taken from the CERC ADMS-Roads User Guide.

Even with the addition of ammonia as another source of nitrogen within the nitrogen deposition calculations, small rates of deposition are still predicted with a maximum change in deposition rate of 0.2 becoming 0.3 kg N ha^{-1} yr^{-1} at the edge of the road.

Appendix E. Commentary on Modelling Work Undertaken by Air Quality Consultants Ltd and on Wealden District Council's Response to South Downs Local Plan

Appendix E. Commentary on modelling work undertaken by Air Quality Consultants for Wealden District Council and on Wealden District Council's response to the South Downs National Park Local Plan

In Stephen Baughen's letter dated 02/02/18 a series of points were set out (points 2a – 2e) that requested a response in addition to updating the Air Quality Impact Assessment. In those points AECOM was asked to:

'Produce an appendix to the AQIA to:

a) Explain why your assessment has not relied on the 1000 AADT threshold considered in the Wealden judgment.
b) Set out the key methodological differences between the AQC approach and the AECOM approach;
c) Explain why either i) the methodological differences between AECOM and AQC make no difference to the outcome of the assessment; or ii) the AECOM methodology is preferable. In particular:
d) Explain the evidential basis upon which AECOM has assumed an annual 1% decrease in background deposition rates and explain why that is a scientifically robust assumption notwithstanding historic over-estimates of predicted reductions and notwithstanding the AQC;
e) Explain the relevance of ecological interpretation in assessing the likely significant effects of air pollution on the SAC, and its significance in AECOM's and AQC's assessments
f) Give your expert opinion on whether all or any of the 'scenarios' modelled in the AQC Report are scientifically reasonable and, if so, what is the consequence for the Council's ability to rely on AECOM's conclusion that there are no likely significant adverse effects of planning growth in Tunbridge Wells Borough?
g) Address any miscellaneous points arising out of the representations made by Wealden DC in response to the HRA and/or in relation to planning applications to explain why the criticisms/representations made by Wealden DC are misplaced'.

The below response covers these points and constitutes the requested Appendix.

Point 1(a) – the use of the 1,000 AADT metric

The Wealden vs. Lewes case has undermined the value of the 1,000 AADT metric entirely. There are several fundamental points regarding the 1,000 AADT metric, which we cover below:

1. It was only ever intended as a shorthand method to decide whether it is worth doing actual air quality modelling; the figure of 1,000 AADT has no special air quality significance in itself (other than being widely agreed in the industry that, when translated into air quality modelling, a change of less than 1,000 AADT generally works out to be a change in nitrogen deposition rate so far below any damage threshold that it could be ignored);
2. It was only ever intended to be a first stage in the traffic/air quality assessment process. The core of the assessment process is the air quality modelling which is in any case a more robust way of examining impacts than simply scrutinising AADTs since it allows fleet composition, average vehicle speeds, habitat structure (in broad terms e.g. woodland or grassland), meteorology etc. to be taken into consideration, all of which influence deposition of pollutants.

Therefore, if you have undertaken air quality calculations anyway, the 1,000 AADT metric is irrelevant as its only value is in determining if it is worth performing such calculations. Since the High Court case the main practical change has been the general abandonment of the 1,000 AADT metric: to use it cumulatively requires all the detailed traffic modelling that one would need for the air quality calculations anyway, so one may as well proceed straight to the air quality modelling.

This has the advantage of being a much more nuanced assessment than simply summing AADTs (see point 2 above) and is also inherently cumulative/in combination due to the way the models are built.

Points 2(b) to 2(f) – comparison between the AECOM modelling and Air Quality Consultant's modelling

The key differences in modelling approach between the AQC work and AECOM work

The key differences in modelling approach between the AECOM and AQC assessments are:

- Pollutants considered;
  - Both assessments have considered NOx concentrations, ammonia, nitrogen deposition and acid deposition;
  - AQC also considered nitric oxide (NO), nitrogen dioxide (NO_2), particulate ammonium (NH_4^+), airborne reduced nitrogen (NH_x)[2] and particulate nitrate (NO_3^-)[3].
- Air Quality model verification;
  - AQC utilised a single monitoring location for verification for Lewes Downs SAC. This monitoring point was located in a canyon location along the A26 (as described in Lewes Downs SAC Air Quality Assessment, Appendix A2 Modelling Methodology, paragraph A2.3) and was modelled using a canyon module to represent the specific reduced dispersion of pollutants associated with canyon locations and so higher concentrations within canyons. However, AQC did not use the canyon module elsewhere in the modelling indicating that the wider area (i.e. the Lewes Downs SAC under consideration) was not considered to be a canyon. The verification used therefore was optimised to describe pollutant concentrations at the canyon along part of the A26 and not the Lewes Downs SAC and so it is unclear how this will have better represented emissions within the ecosystem);
- Background concentrations;
  - AECOM used Defra background maps;
  - AQC also used Defra background maps but carried out an additional calibration step using national monitoring data uplifting NOx background concentrations by 9.4% (as described in Lewes Downs SAC Air Quality Assessment, Appendix A2 Modelling Methodology, paragraph A2.8). The methodology for derivation of this factor is not provided fully in the document referenced (AQC, 2016, Deriving Background Concentrations of NOx and NO_2 for use with CURED V2A), noting this calibration is based on background sites in the Automatic Urban and Rural Monitoring Network (AURN). However, the method does not indicate whether this calibration is based on all 'urban background' locations, 'suburban background' locations or 'rural background' locations, noting one example of a site at London Hillingdon that has been excluded. A review of Figure 6, (op cit.) suggests that approximately 50 background sites have been used, but that the relationship against the Defra background map is largely good, with a number of outlier points, suggesting that a wider review of sites, such as the review which excluded London Hillingdon had been carried out, may identify that there are other sites that should be excluded or that sites should be better grouped to describe specific types of site (e.g. urban or rural locations). This may then result in a different calibration factor being derived for 2014 for this type of location. It should also be noted that applying this same AQC calibration step to a baseline year of 2015 would result in a reduction of NOx of 0.09%. Therefore, whilst this additional calibration step has been used the factor employed may or may not be appropriate for the Lewes Downs SAC.
  - In those projects where baseline data has been gathered AECOM presents annual averages. Very unusually, AQC have not presented their monitoring data for annual periods, despite this being possible for a large proportion of the data collected so showing normal year to year variations in pollutant concentrations is possible but not presented. Monitoring data is presented for 2 years of data collection up to the summer of 2016. Therefore, as the report was published in October 2017 three years of data should have been available for consideration. Although, data was installed at a variety of points within the study a large proportion of data is available for 24 months or a large percentage of 24 months.

However, curiously data is not presented as annual averages, but as a two year average. Significantly, this prevents the reader from understanding variations between the years of monitoring data as would be expected from annual monitoring surveys.

- Deposition rates;
    - AECOM used deposition rates taken from APIS using a standard fixed deposition velocity (based on DMRB guidance), although sensitivity testing has been undertaken using the higher velocities referenced in the AQC report.
    - AQC used an approach where deposition rates were taken from APIS and using a standard fixed deposition velocity and also a temporally-variable approach to calculating deposition fluxes. Paragraph 7.25 of the AQC report indicates that the modelling method used here involves much higher nitrogen deposition velocities than those used in standard modelling which will partly explain the greater forecast deposition rates that those identified in the AECOM report which uses the standard methods and deposition velocities.
- Future air quality assumptions (NO_x);
    - AECOM typically prepare two scenarios:
        - one assuming all Defra improvements (Emission Factor Toolkit (EFT)); and
        - one with background concentrations and emission rates from approximate midpoint (e.g. 2023 for a 2030 plan) – this second scenario represents reasonable worst case. For the purposes of the modelling of Ashdown Forest only this scenario is reported.
    - AQC presented three scenarios:
        - official predictions using Defra rates of improvement;
        - a sensitivity test using the in-house CURED approach; and
        - no improvements in air quality.
- Future air quality assumptions (nitrogen deposition)
    - AECOM assessments typically assume c.1% reduction per year in background deposition rate, which is half the amount advised in DMRB HA207/07 Annex F and so includes consideration of uncertainty in the rates of reduction over time in nitrogen deposition.
    - AQC prepared an assessment assuming that background nitrogen deposition rates will hold constant at the average 2013-2015 value, on the basis that there is a non-linear relationship between NOx emissions and N-deposition rates.

The AQC modelling includes 24-hour NOx (known as the short-term critical level). The ecological value of the 24hr NOx metric is limited The WHO (2000) guidelines include a short-term (24 hour average) NOx critical level of 75 µg/m^3. Originally set at 200 µg/m^3, the guideline was considerably lowered in 2000 to reflect the fact that, globally, short-term episodes of elevated NOx concentrations are often combined with elevated concentrations of O_3 or SO_2, which can cause effects to be observed at lower NOx concentrations. However, high concentrations of SO_2 are rarely recorded in the UK. As such, there is reason to conclude that in the UK the short-term NOx concentration mean is not especially ecologically useful as a threshold. The Centre for Ecology & Hydrology have commented that '*UN/ECE Working Group on Effects strongly recommended the use of the annual mean value, as the long-term effects of NOx are thought to be more significant than the short-term effects*'[48].

The AECOM report models all receptors as if they represented the 'ideal' habitat (heathland). In contrast, the AQC report models the habitats that are actually currently present. For the most affected areas this is woodland. However, woodland is not an SAC feature, so effects of the woodland are not relevant to consideration of impacts on the ability of the SAC to achieve its conservation objectives (the primary requirement of the HRA process). Woodland has a higher deposition flux

[48] Sutton MA, Howard CM, Erisman JW, Billen G, Bleeker A, Grennfelt P, van Grinsven H, Grizzetti B. 2013. The European Nitrogen Assessment: Sources, Effects and Policy Perspectives. Page 414. Cambridge University Press. 664pp. ISBN-10: 1107006120
June 2011. Manual on Methodologies and Criteria for Modelling and Mapping Critical Loads & Levels and Air Pollution Effects, Risks and Trends. Chapter 3: Mapping Critical Levels for Vegetation

than heathland; for this reason (and because of the use of higher deposition velocities as already mentioned) the modelled nitrogen deposition rates reported are often higher than in the AECOM model.

Why the AECOM approach is preferable

The AQC approach presents four unrealistically conservative future scenarios and two that we consider unrealistically optimistic. The most realistic scenarios presented by AQC (Scenarios 3 and 5) apply some conservatism to future emissions from diesel vehicles but assume all other future improvements occur as currently anticipated by Government, which is likely to present a too optimistic picture.

In contrast, the approach to future rates of deposition in the less realistic scenarios are very conservative, assuming no change in background deposition rates despite noting within their report that since 1988 total nitrogen deposition has reduced by 13%, illustrating the presence of an existing improving trend. The deposition rate calculations undertaken by AQC utilising a temporally variable approach is not based on guidance and it is unclear exactly how the variable values were calculated.

It is considered by AECOM, and also stated in paragraph 7.33 of the AQC report, that the future situation is most likely to be somewhere between the scenarios presented in the AQC report (paragraph 7.33 *"Overall, the future-year deposition projections will have a level of uncertainty associated with them, but it is not unreasonable to expect the reality to lie somewhere between the different scenarios that have been modelled."*) i.e. somewhat less optimistic than AQC Scenarios 3 and 5 but considerably better than the other AQC Scenarios.

AECOM's modelled scenario falls into this middle ground. The AECOM approach is based on published methods and guidance documents, (e.g. Defra and DMRB), with conservative assumptions made where appropriate (e.g. partial future improvements in concentrations, emissions and deposition rates). The AECOM approach predicts a scientifically reasonable realistic worst case assessment of future air quality and deposition, rather than a range of overly conservative or optimistic predictions. For example, with regard to nitrogen deposition the AQC report produced for Ashdown Forest SAC states in paragraph 3.10 that since 1988, the total deposition of nitrogen has decreased by 13%. Paragraph 7.30 of the same report states that oxidised nitrogen deposition decreased by 14% between 1988 and 2010. This is an improvement of 0.59% (total nitrogen) or 0.64% (oxidised nitrogen) per annum on average. The AECOM modelling assumes a modest improvement in background nitrogen deposition from 2017 to 2033 equivalent to 0.75% per annum on average. This is not a substantive difference from past trends, and as new vehicles (i.e. Euro 6/VI) with reduced emissions replace older vehicles in the vehicle fleet it makes sense to allow for a slightly increased average rate of improvement in the future. This can be seen in the real world emission tests reported in the Department for Transport Vehicle Emissions Testing Programme (2016) which shows that under real world driving conditions Euro 6 emissions are on average lower than the older Euro 5 standard.

The AQC study uses a bespoke modelling method for nitrogen deposition. They relate it to an Environment Agency study published in 2008 (paragraph 7.22). However, paragraph 7.24 of the AQC report acknowledges that one of the drawbacks of the bespoke 'first principles' method is that '… *some of the parameters used in the deposition model are highly uncertain*' and that small variations in some, such as stomatal resistance, could have quite large effects on the resulting deposition fluxes. All forecasting methods have their benefits and drawbacks and one risk of using an extremely complex model is that there is more room for uncertainties to affect the results due to the greater number of uncertain parameters in the model.

Whether any or all of the AQC 'scenarios' represent a scientifically 'reasonable' approach

Seven scenarios have been considered within the AQC report:

- Scenario 1 is a scientifically reasonable representation of current baseline but only represents the baseline rather than any forecasting.

- Scenarios 2 (without the Wealden Local Plan) and 4 (with the Wealden Local Plan) postulate future (2028) scenarios assuming **no** improvements in any rates (emissions, deposition), backgrounds etc. Since they assume no

improvement whatsoever (and thus a reversal of long-established trends), these are considered to be an unrealistically pessimistic assessment of the future situation and thus not scientifically reasonable. Even the AQC Ashdown Forest and Lewes Downs reports acknowledge as much. The AQC Ashdown Forest report states (in paragraph 7.11) that '*It is considered that, with respect to vehicular NOx emissions, Scenarios 3 and 5 provide a reasonable worst-case assessment, while Scenarios 2, 4, 6, and 7 provide an extreme worst-case upper-bound'.* In the Lewes Downs report AQC state that '*The results from the sensitivity test and worst-case scenario are likely to over-predict emissions from vehicles in the future*'.

- Scenarios 3 (without the Wealden Local Plan) and 5 (with the Wealden Local Plan) represent the future (2028) scenarios assuming that projected DMRB/Defra improvements in rates (emissions, deposition), backgrounds etc. are **fully** realised. AQC's assessment utilises their bespoke CURED tool to apply a more pessimistic view of improvements in diesel emissions for the future scenario than the published Defra emission rates. This is therefore likely to contain a more reasonable assessment of future emissions than other scenarios assessed; however as only one parameter has been adjusted to account for reduced optimism in future emission rates, whilst assuming full projected improvements in deposition rates and background concentrations, it is likely that these scenarios will present an unrealistically optimistic assessment of the future situation.

- Scenarios 6 (without the Wealden Local Plan) and 7 (with the Wealden Local Plan) postulate the future (2028) scenarios assuming emissions per vehicle, primary NO_2 proportions, and rural background ozone concentrations remain at 2015 values (i.e. no improvement), but with HNO_3, particulate deposition, and wet deposition projected to 2028. These scenarios are also considered to be unrealistically pessimistic and thus scientifically unreasonable, for the same reasons as Scenarios 2 and 4.

In AECOM's view the most scientifically reasonable scenario(s) that AQC have postulated are Scenario 3/5 (although we nonetheless consider them to be excessively optimistic in their assumptions of improvements in background emissions and deposition rates). These are the scenarios that mirror the trends the AECOM analysis has forecast:

- With regard to 'in combination' trends in NOx concentrations, paragraphs 10.55 and 10.56 of the AQC report state that: '***Predicted annual mean NOx concentrations in 2028 with the Local Plan are, in this emissions scenario*** [Scenario 5]***, lower than those at present.*** *This is because the predicted changes in emissions from the average road vehicle more than offset the increases in traffic that are predicted over the same period. Over most of the SAC, the predicted reductions in NOx concentrations are less than 4 µg/m^3, but close to roads the reductions are greater, with changes* [reductions] *greater than 8 µg/m^3 predicted alongside many of the roads'*.

- With regard to trends in nitrogen deposition rates, paragraph 10.72 of the AQC report states that '*Increases* [in nitrogen deposition due to the Wealden Local Plan] *greater than 0.05 kg-N/ha/yr are predicted in the vicinity of roads, but extend out up to almost 300 m from the A22 and 100 m from the B2026.* ***Increases greater than 1 kg-N/ha/yr*** [due to the Wealden Local Plan] ***are predicted close to the A22'.*** However, when moving to the 'in combination' discussion, paragraph 10.77 makes it clear that these 'increases' are considerably more than offset by a forecast large net reduction in nitrogen deposition. Paragraph 10.77 says: *'For the reasons explained for NOx concentrations, nitrogen deposition is predicted to reduce across the entire SAC in this scenario comparison. The minimum reduction is 0.8 kg-N/ha/yr, which is predicted to occur at background locations to short vegetation.* ***The maximum reduction is 14 kg-N/ha/yr, which is predicted to occur to woodland alongside the A22.*** *The reductions are higher where the baseline fluxes are highest (i.e. over woodland and close to roads) because this is where the anticipated reductions in NOx emissions per vehicle are predicted to have the greatest effect'.*

Whether the results of that scientifically reasonable approach are ecologically significant and why

The overall trends and relationships in AQC Scenarios 3/5 (the only scenario(s) we consider broadly reasonable) are similar to the trends and relationships that AECOM has forecast, notwithstanding the very different modelling methods.

The forecast contribution of future traffic to nitrogen deposition is considerably greater in the AQC model (more than 1 kgN/ha/yr at the roadside of the A22 at Wych Cross) than in the AECOM model (0.31 kgN/ha/yr at the same location). Similarly, AQCs forecast net improvement in nitrogen deposition (a reduction of 14 kgN/ha/yr adjacent to the A22 at Wych Cross) is much greater than that forecast by AECOM (a reduction of 1.89 kgN/ha/yr forecast for the same location). However, these differences are likely due to a combination of the different habitats modelled (woodland in the AQC work, heathland in the AECOM work), the very different deposition modelling methods used and (regarding improvements in background) the fact that AQC postulate a percentage improvement in deposition (23%) that is nearly double that in the AECOM model (12%) and apply this to a higher baseline deposition rate (60 kgN/ha/yr adjacent to the A22 at Wych Cross according to paragraph 9.19 of the AQC report, compared to 15kgN/ha/yr at the same location in the AECOM model)[49].

The actual rates and concentrations are thus different between the two models, **but** the ecological interpretation of Scenarios 3/5 of the AQC modelling would mirror that of the AECOM scenario. A significant net improvement in nitrogen deposition is forecast even allowing for future growth and the forecast nitrogen contribution of that 'in combination' growth is not only more than offset by the expected improvement (which is expected to be an order of magnitude greater than the contribution of the additional traffic) but is unlikely to result in a measurable retardation in any heathland vegetation recovery/establishment that might otherwise occur. For example, Table 21 of NECR2010 records that at baseline deposition rates of 30kgN/ha/yr (the highest deposition rate cited in that report) a reduction in species richness equivalent to '1' (i.e. a reduction in the frequency with which at least 1 species was encountered in a given sample quadrat) was associated in heathland with a dose (incremental increase) of 2.4kgN/ha/yr. While no areas with deposition rates as high as 60kgN/ha/yr were covered by the analyses in NECR2010 it is reasonable to conclude that the documented trend (i.e. an ever larger dose of nitrogen required to achieve the same negative effect as baseline deposition rates rise) will continue or level off at deposition rates above 30 kgN/ha/yr. Southon et al (2013) studied over fifty heathlands across England at deposition rates of up to 32.4kgN/ha/yr and found that above 20 kgN/ha/yr *'… declines in species richness plateaued, indicating a reduction in sensitivity as N loading increased'.*

In the Statement of Common Ground being drawn up between the various authorities surrounding Ashdown Forest, Wealden District Council has argued that Natural England Research Report NECR2010 is not applicable to Ashdown Forest on the basis that:

- The report did not include Ashdown Forest itself in its sample and thus did not include the influence of local conditions at that site, including the current condition of the heathland;
- There was limited coverage of heathland sites located in the south-east of England; and
- The analysis did not include wet heath.

In fact, the heathland sites covered by the research reported in NECR2010 had a wide geographic spread and were subject to a range of different 'conditions' but the identified trends were nonetheless observable. The fact that a given heathland site may not have been included in the sample cannot be a basis for the identified trend to be dismissed as inapplicable. On the contrary, the value of the available dose-response research is precisely in the fact that it covers a geographic range of sites subject to a mixture of different influences that might otherwise mask the nitrogen relationships if a given site was looked at in isolation. NECR2010 illustrates that consistent trends have been identified *despite* the differing geographic locations of those habitats and different conditions at the sites involved.

Heathland and acid grassland (a related habitat that is often found intermixed with heathland) have been particularly well studied across broad geographical, climatic and pollution gradients covering different levels of soil organic matter, rates of nutrient cycling, plant species assemblages and management regimes. Despite this, the overall trends, including that a given 'dose' of nitrogen generally has less effect on a range of vegetation parameters as background deposition rates rise has been reported by various peer reviewed academic papers[50]. Southon et al (2013) surveyed 52 heathlands across

[49] This difference in baseline rates is because the AECOM model uses Defra modelled baseline data and models heathland at this location, while AQC uses local measured data and models woodland at this location.

[50] Stevens, C. J.; Dise, N. B.; Gowing, D. J. G. and Mountford, J. O. (2006). Loss of forb diversity in relation to nitrogen deposition in the UK: regional trends and potential controls. Global Change Biology,12(10), pp. 1823–1833.

England and observed statistically significant trends despite the large differences in conditions of these heathlands. That paper specifically states that '*the biggest reductions in species number* [were] *associated with increasing N inputs at the low end of the deposition range'* and that '*The similarity of relationships between upland and lowland environments, across broad spatial and climatic gradients, highlights the ubiquity of relationships with N*'.

Based on the consistent trend across the range of habitats studied (including wet habitats such as bogs as well as lowland heathland, upland heathland and dune systems) there is no basis to assume that the identified trends would not be applicable to all types of heath, including wet heath. Upland heathlands tend to be wetter than lowland heathlands due to climate differences and yet the same pattern has been observed as reported in Southon et al (2013).

Due to the existence of other influences (such as management) that have a much greater effect on relevant vegetation parameters than does nitrogen deposition, there can be no absolute certainty that the reported trends would be observed in a given part of Ashdown Forest. However, there is a reasonable scientific expectation that the observed relationships would be detected if Ashdown Forest was included in the broader sample.

Point 2(g) – g) Address any miscellaneous points arising out of the representations made by Wealden DC in response to the HRA

AECOM is aware that Wealden District Council submitted a response to the South Downs National Park Local Plan consultation which made a number of criticisms of AECOM's original modelling work undertaken in summer 2017. We respond to the relevant points below.

Complaint 1: Failure to take account in the Lewes Downs SAC modelling of additional Wealden growth identified since 2015

This complaint does not relate to Ashdown Forest and so a substantive response is not provided here.

Complaint 2: Failure to take account of growth that has already been delivered prior to 2017 in the Ashdown Forest modelling

The model does include traffic already on the network, and thus includes the role of development completed prior to 2017. The 'Do Something' 2033 air quality forecast includes existing NOx concentrations and nitrogen deposition (and thus the projects/plans that will have contributed to them). Doing so illustrates that, even including both the existing traffic and further emissions/deposition due to additional traffic, there is forecast to be a net improvement in air quality by 2033 due to projected improvements in those background concentrations/rates and vehicle emission factors.

Complaint 3: Suggestion that the area affected by exhaust emissions can extend beyond 200m

In all cases our modelled transects show that NOx concentrations and nitrogen deposition rates are forecast to fall to background levels well before 200m from the roadside. In any event the greatest impact will always be recorded closest to the road and using this roadside data will provide the most precautionary assessment. Therefore there is no value in extending transects any further.

Complaint 4: Failure to take account of uncertainty regarding improvements in emissions and deposition

The specific comment made by Wealden was as follows: *'There is uncertainty with regards to projected future vehicle emissions of NOx and this alone would mean that a precautionary approach should be used within the HRA. If there is a decrease in NOx concentrations from vehicles, the interaction between NOx and nitrogen deposition has not been considered as well as the role of ammonia in this regard. This is a particular issue as the levels of emissions of ammonia*

Southon GE, Field C, Caporn SJM, Britton AJ, Power SA (2013) Nitrogen Deposition Reduces Plant Diversity and Alters Ecosystem Functioning: Field-Scale Evidence from a Nationwide Survey of UK Heathlands. PLoS ONE 8(4): e59031. doi:10.1371/journal.pone.0059031

Stevens, Carly; Dupre, Cecilia; Dorland, Edu; Gaudnik, Cassandre; Gowing, David J. G.; Bleeker, Albert; Diekmann, Martin; Alard, Didier; Bobbink, Roland; Fowler, David; Corcket, Emmanuel; Mountford, J. Owen; Vandvik, Vigdis; Aarrestad, Per Arild; Muller, Serge and Dise, Nancy B. (2010). Nitrogen deposition threatens species richness of grasslands across Europe. Environmental Pollution, 158(9), pp. 2940–2945.

from vehicles in the future is unknown, is not currently regulated, and there is a potential for emissions to increase. This provides an added reason for the need to apply the precautionary principle when considering the impact of emissions. In this regard the HRA is considered to be incomplete.'

The appropriate use of the precautionary principle is not simply to assume that the worst outcome conceivable is the one that will happen. It also involves making a balanced judgment based on past trends and the likelihood of those trends continuing or increasing. There is a long history of improving trends in key pollutants (notably NOx) and in nitrogen deposition rates, and there is no reason to expect that will suddenly cease; on the contrary, as new vehicles (i.e. Euro 6/VI) with reduced emissions replace older vehicles in the vehicle fleet it makes sense to allow for a slightly increased average rate of improvement in the future. This can be seen in the real world emission tests reported in the Department for Transport Vehicle Emissions Testing Programme (2016) which shows that under real world driving conditions Euro 6 emissions are on average lower than the older Euro 5 standard. AECOM has therefore made a precautionary allowance for improvements in background NOx concentrations. On the other hand, in our ammonia modelling no allowance has been made for improvement in background concentrations.

With regard to nitrogen deposition the AQC report produced for Ashdown Forest SAC states in paragraph 3.10 that total nitrogen deposition (i.e. taking account of both reduced and oxidised nitrogen) decreased by 13% between 1988 and 2010. This is an improvement of 0.59% (total nitrogen) per annum on average. The AECOM modelling assumes an improvement in background nitrogen deposition from 2017 to 2033 equivalent to 0.75% per annum on average. This is not a substantive difference, and given the introduction of new vehicles with reduced emissions (as described above) it makes sense to allow for a slightly increased average rate of improvement in the future. The AECOM assessment presents a realistic worst-case that is considerably more cautious than those advocated in the only available Government guidance on the issue (Defra concerning NOx rates of improvement and DMRB concerning rates of N-deposition improvements).

While the AQC reports produced for Wealden District Council include numerous scenarios that assume no improvement in background emissions and deposition rates (and thus a net deterioration in both), we note that AQC themselves do not consider those scenarios to be realistic. The AQC Ashdown Forest report states in paragraph 7.11 that *'It is considered that, with respect to vehicular NOx emissions, Scenarios 3 and 5* [which make significant allowances for improvement in NOx concentrations and background nitrogen deposition rates] *provide a* ***reasonable*** [emphasis added] *worst-case assessment, while Scenarios 2, 4, 6, and 7* [which make no allowance for improvement in background] *provide an* ***extreme*** [emphasis added] *worst-case upper-bound*'. An 'extreme' case, while not impossible, is unreasonable and unrealistic almost by definition. Similarly, in the Lewes Downs report AQC state that *'The results from the sensitivity test and worst-case scenario are likely to over-predict emissions from vehicles in the future'*. AECOM agrees with the statement in paragraph 7.33 of the AQC Ashdown Forest report that '*Overall, the future-year deposition projections will have a level of uncertainty associated with them, but it is not unreasonable to expect the reality to lie somewhere between the different scenarios that have been modelled*.' i.e. somewhat less optimistic than AQC Scenarios 3 and 5 but considerably better than the other AQC Scenarios. AECOM's modelled scenario falls into this middle ground.

Complaint 5: *'The modelling only considers the base date and one date in the future (last year of the Plan period). By assuming that there is a reduction by the end of the plan period it cannot take into account the potential damage caused by the emissions at the higher level (earlier in the plan period)'.*

Appendix C of AECOM's updated modelling report contains an analysis of intervening years between 2017 and 2033 to confirm that year-on-year net improvement in emissions is expected. Moreover, for vegetation, long-term trends in air quality are more important than short-term fluctuations. The ecological effects of nitrogen deposition are most associated with persistent long-term exposure (i.e. many years). Whether growth will result (for example) in an increase in nitrogen deposition for a couple of years before improvements in emission factors and background rates 'catch up' would be less important than whether there will be a persistent net increase or decrease in deposition over the plan period.

Complaint 6: Failure to account for ammonia emissions

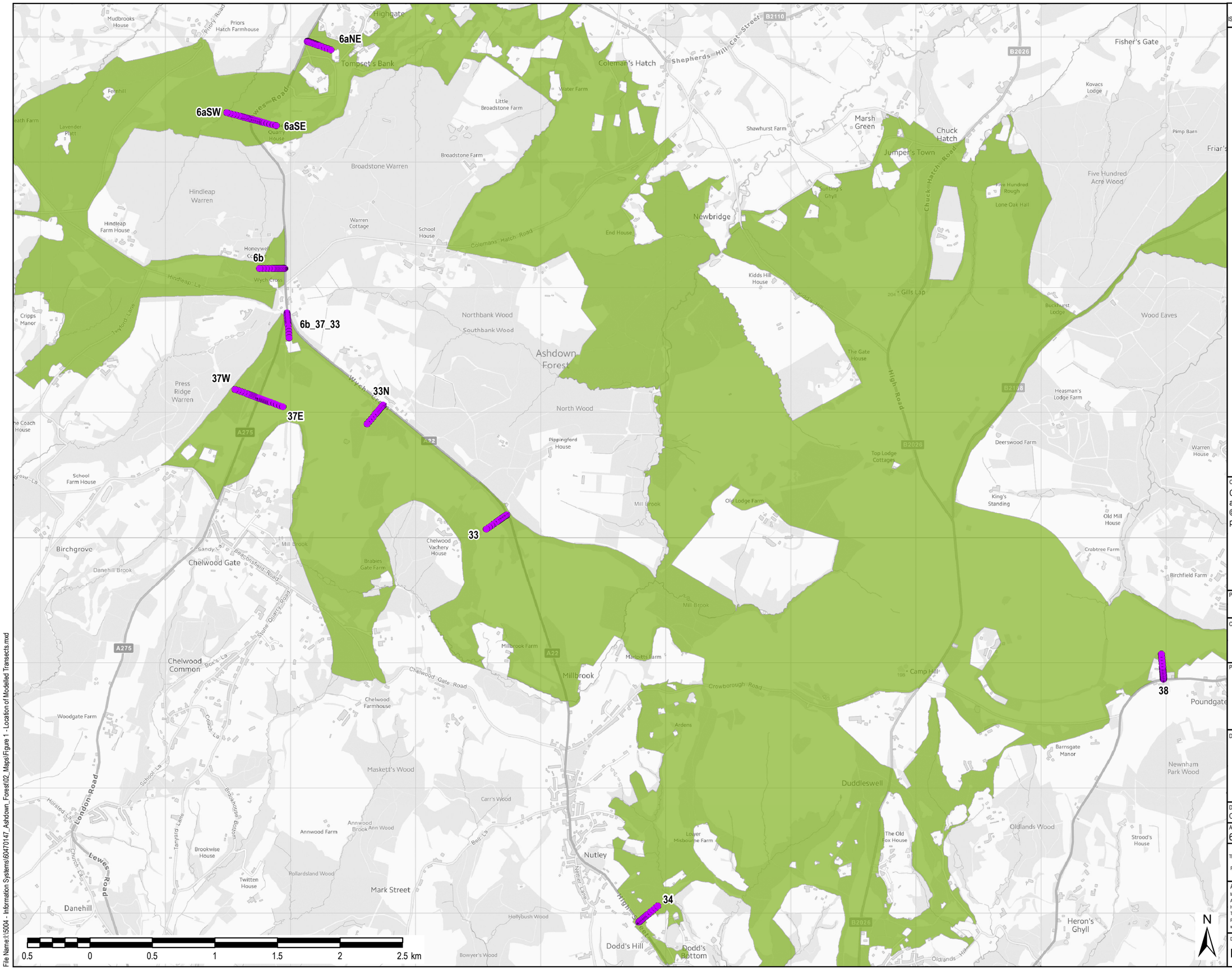
AECOM's modelling has been updated to account for ammonia emissions. Due to the aforementioned uncertainties no allowance for improvement in background ammonia concentrations has been factored into AECOM's modelling.

Complaint 7: Failure to consider air quality impacts on Pevensey Levels SAC
This complaint does not relate to Ashdown Forest and so a substantive response is not provided here.

Complaint 8: Suggestion that the model/scenarios in the AQC report are 'better' than the standard method
The AQC studies use a bespoke modelling method for nitrogen deposition that goes back to first principles (such as stomatal resistance), but is related to an Environment Agency study published in 2008 (paragraph 7.22). The fact that a given model is more detailed or elaborate does not necessarily mean it is any more likely to accurately forecast local air quality by 2033 because there is a need to make judgment-based decisions over parameters and future trends that may or may not be correct whatever model is used. One risk of using a complex model is its inherent complexity: there are a large number of parameters in the model and greatly varying levels of certainty in those parameters. Paragraph 7.24 of the AQC report acknowledges this where it states that '… *some of the parameters used in the deposition model are highly uncertain*' and notes that small variations in some, such as stomatal resistance, could have quite large effects on the resulting deposition fluxes. This doesn't mean that such a model shouldn't be used if desired but given the uncertainties in any forecasting it is at least equally defensible to follow the existing simpler method that is deployed as standard good practice and supported by Natural England. While there are uncertainties in (for example) the relationship between NOx concentrations and nitrogen deposition these must be addressed whatever model is used and the improvements in nitrogen deposition rate included in the AECOM modelling are in line with recorded trends, as identified earlier in this note.

The Wealden studies prepared by AQC have modelled a range of scenarios which differ greatly in their outcomes for the same traffic data, ranging from predicting a large net increase in nitrogen deposition to predicting a large net reduction. AQC acknowledge in their reports that most of their modelled scenarios are unrealistic. The scenario that AQC themselves identify as being most realistic (Scenarios 3 and 5 in the Ashdown Forest report) broadly correspond with the AECOM modelling, notwithstanding the considerable difference in methodological details. It forecasts additional nitrogen deposition due to additional traffic but predicts that this will be more than offset by improvements in background and emission factors, leading to a large net reduction in nitrogen deposition. Indeed, the allowances made in the AECOM modelling for improvements in background rates/concentrations and emission factors are actually more conservative than those in AQC scenarios 3 and 5.

Complaint 9: It is considered that Plans that allocate sites, and propose that these sites are deliverable, should have a greater level of assessment than a strategic plan which does not distribute growth to certain areas
For Ashdown Forest we have modelled growth across South Downs and Lewes District, Tunbridge Wells Borough and Sevenoaks District in detail (i.e. using information on site allocations).



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

LEGEND

- Modelled Receptor
- Ashdown Forest Special Area of Conservation (SAC)

Purpose of Issue: FINAL

Client: SOUTH DOWNS NATIONAL PARK AUTHORITY AND LEWES DISTRICT COUNCIL

Project Title: AIR QUALITY ASSESSMENT FOR ASHDOWN FOREST SAC

Drawing Title: LOCATIONS OF MODELLED TRANSECTS

Drawn	Checked	Approved	Date
CN	JW	JR	13/09/2017

AECOM Internal Project No.	Scale @ A3
60470147	1:27,500

AECOM
Midpoint
Alencon Link, Basingstoke
Hampshire, RG21 7PP
Telephone (01256) 310200
Fax (01256) 310201
www.aecom.com

Drawing Number: FIGURE 1

Rev: 01

File Name:I:\5004 - Information Systems\60470147_Ashdown_Forest\02_Maps\Figure 1 - Location of Modelled Transects.mxd

About AECOM

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Scott House
Alençon Link
Basingstoke
Hampshire
RG21 7PP
United Kingdom
+44 1256 310200