



**Habitats Regulations
Screening Assessment**

Submitted to
Dartford Borough Council

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1 Background

- 1.1.1 AECOM (previously URS) has been appointed to assist with undertaking a Habitats Regulations Assessment (HRA), in accordance with the Conservation of Habitats and Species Regulations 2010, of Dartford Borough Local Plan, Development Policies Document Publication Version (December 2015), herein referred to as the Development Policies Document (DPD).
- 1.1.2 The HRA is required to evaluate the Likely Significant Effects (LSE) of the DPD on internationally important wildlife sites within the zone of influence, if there is a relevant connecting pathway.
- 1.1.3 The objective of this assessment is to:
- Identify any aspects of the DPD 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 sites¹), either in isolation or in combination with other plans and projects; and
 - To advise on appropriate policy mechanisms for delivering mitigation where such effects are identified.
- 1.1.4 If the DPD cannot be screened out as being unlikely to lead to significant effects, then an Appropriate Assessment (AA) is required in order to devise measures that can be incorporated into the DPD which will enable the Council in their role as 'competent authority' to conclude that no adverse effect on the integrity of internationally important wildlife sites will result. In this case, it has been possible to screen out the DPD.
- 1.1.5 In December 2014, AECOM undertook a Habitats Regulations Screening Assessment of the Issues and draft policies version of the Dartford Local Plan Development Policies Document. This did not identify any impact pathways that link to a European Designated site. It was concluded that no likely significant effect would result. This screening report updates the initial screening assessment of the DPD policies and provides an update in regard strategic policy, particularly relating to recreational pressure and consultation responses.

1.2 Legislation

- 1.2.1 Within the UK, Protected Areas for nature conservation include, those established under National legislation (e.g. Sites of Special Scientific Interest (SSSI)), areas established under European Union Directives/European initiatives (including Natura 2000 network of sites), and protected areas established under Global Agreements (e.g. Ramsar sites).
- 1.2.2 With relevance to this report, Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. Special Areas of Conservation (SACs) are strictly protected sites designated under the EC Habitats Directive (Article 3). SACs are classified as high-quality conservation sites that make a significant contribution to conserving the 189 habitat types and 788 species (excluding birds) identified in Annexes I and II of the Directive (as amended). Habitats and species features are those that are considered to be most in need of conservation at a European level. Ramsar sites are wetlands of international importance designated under the Ramsar Convention.

1.3 Habitat Regulations Assessment (HRA)

- 1.3.1 The Habitats Directive applies the precautionary principle to Natura 2000 sites (Special Areas of Conservation, SACs, and Special Protection Areas, SPAs; as a matter of UK Government policy, Ramsar sites² are given equivalent status). For the purposes of this Habitats Regulations Assessment (HRA) candidate SACs, proposed SPAs and proposed Ramsar sites are all treated as fully designated sites. The need for HRA (also often referred to as Appropriate Assessment or AA) is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2010 (**Box 1**). The ultimate aim of the Directive is

¹ Wetlands of International Importance designated under the Ramsar Convention 1979

² Ibid

to “maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest” (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.

Box 1: The legislative basis for Appropriate Assessment

Habitats Directive 1992

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

Article 6 (3)

Conservation of Habitats and Species Regulations 2010 (as amended)

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

- 1.3.2 AECOM has been appointed by Dartford Borough Council (“the Council”) to assist in undertaking a HRA of the potential effects of the Publication Version of the DPD on the Natura 2000 network and Ramsar sites.
- 1.3.3 Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 explores the relevant pathways of impact resulting from the scale of development that will be delivered in Dartford. Chapter 4 summarises the Dartford Borough Plan DPD and contains **Table 3** and **Table 4** that screen the policies of the DPD alone and in combination. Chapter 5 is the concluding statement. **Appendix A** provides summaries of the European designated sites.

2 Methodology

2.1 Introduction

- 2.1.1 This section sets out the approach and methodology for undertaking the HRA. HRA itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument. Therefore there is no direct relationship to the 'Test of Soundness'.

2.2 A Proportionate Assessment

- 2.2.1 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.
- 2.2.2 However, the draft CLG guidance³ makes it clear that when implementing HRA of land-use plans, the AA should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself: *"The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project."* More recently, the Court of Appeal⁴ ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be 'achieved in practice' to satisfied 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)⁵. 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'*.
- 2.2.3 In other words, there is a tacit acceptance that Appropriate Assessment can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers.
- 2.2.4 For a Plan the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of significance of effects. For example, precise and full determination of the impacts and significant effects of a new settlement will require extensive details concerning the design of the town, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages. The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. See also paragraph 3.3.7.

³ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

⁴ No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015

⁵ High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

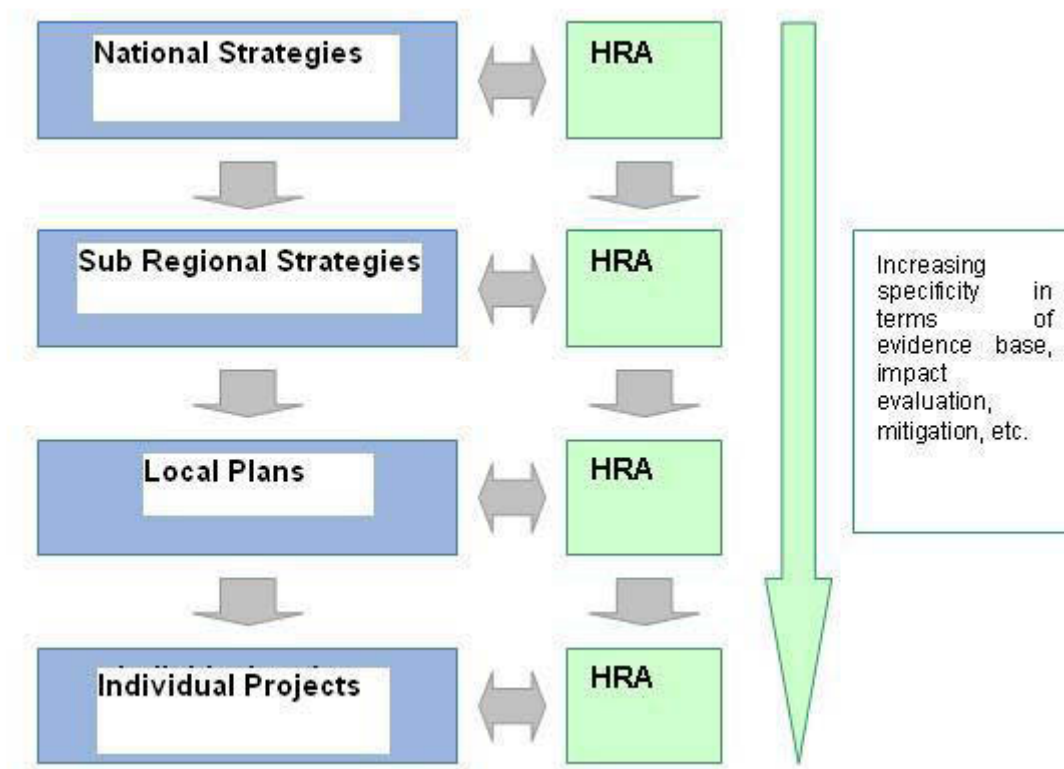


Figure 1: Tiering in HRA of Land Use Plans

2.3 The Process of HRA

- 2.3.1 The HRA has been carried out in the continuing absence of formal central Government guidance. CLG released a consultation paper on AA of Plans in 2006⁶. As yet, no further formal guidance has emerged from CLG. However, Natural England has produced its own informal internal guidance and Natural Resources Wales has produced guidance for Welsh authorities which has been produced to supplement Technical Advice Note 5: Nature Conservation and Planning (2009). Although there is no requirement for an HRA to follow either guidance, both have been referred to in producing this final version of the HRA.
- 2.3.2 Error! Reference source not found. below outlines the stages of HRA according to current draft CLG guidance (which, since it is Central Government has been considered to take precedence over other sources of 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 Likely Significant Effects remain.

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

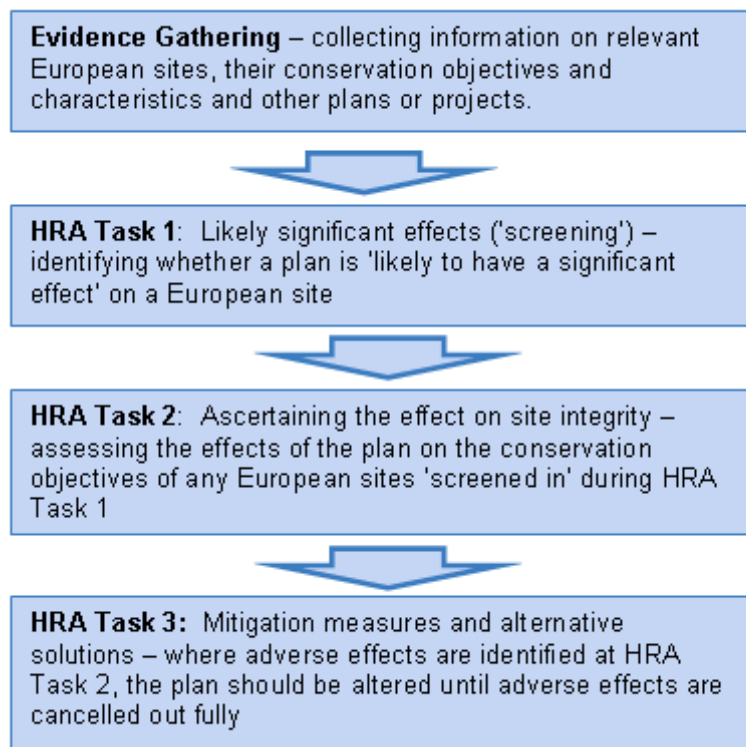


Figure 2: Four-Stage Approach to Habitat Regulations Assessment

2.3.3 The following process has been adopted for carrying out the subsequent stages of the HRA.

2.4 Task One: Likely Significant Effect Test (Screening)

- 2.4.1 The first stage of any HRA is a Likely Significant Effect (LSE) test - essentially a high-level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is: *"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"*
- 2.4.2 In evaluating significance, AECOM has relied on professional judgement as well as stakeholder consultation. The level of detail concerning developments that will be permitted under land use plans is rarely sufficient to make a detailed quantification of effects. Therefore, we have again taken a precautionary approach (in the absence of more precise data) assuming as the default position that if an adverse effect cannot be confidently ruled out, avoidance or mitigation measures must be provided. This is in line with CLG guidance that the level of detail of the assessment, whilst meeting the relevant requirements of the Habitats Regulations, should be 'appropriate' to the level of plan or project that it addresses (see **Figure 2** for a summary of this 'tiering' of assessment).

2.5 Physical scope of the HRA

- 2.5.1 The physical scope of the HRA is shown in **Table 1**. The location of these European sites is illustrated in **Appendix B**.

Table 1: Physical scope of the HRA

European Site	Reason for inclusion
Thames Estuary and Marshes SPA/ Ramsar	Within 6.3km of Dartford Borough boundary
Medway Estuary & Marshes SPA/Ramsar	Within 14.3km of Dartford Borough boundary
North Down Woodlands SAC	Within 5.3km of Dartford Borough boundary
Peters Pit SAC	Within 10.1km of Dartford Borough boundary

- 2.5.2 Further details regarding the interest features and vulnerabilities of the European site included within the scope of the HRA are given in **Appendix A**. All baseline data relating to the European site presented is taken from the Joint Nature Conservation Committee website (JNCC) unless otherwise stated.

2.6 The 'in combination' scope

- 2.6.1 It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question. In practice, 'in combination assessment' is of greatest importance when the Plan (DPD) would otherwise be screened out because the individual contribution is inconsequential. It is neither practical nor necessary to assess the 'in combination' effects of the DPD within the context of all other plans and projects within the region. The principal other plans and projects that we are considering are:

2.7 Plans

- Thames Water –Resource Management Plan 2015 – 2040. Final adopted July 2014 [accessed 19 November 2015]
- Southern Water –Water Resources Management Plan. Final adopted: 15 October 2014 [accessed 19 November 2015]
- Thurrock Borough Council Core Strategy Local Plan 2011-2026. Final adopted 21 December 2011 [accessed 19 November 2015]
- Bexley Borough Council Core Strategy. Final adopted: 22 February 2012 [accessed 19 November 2015]
- Bromley draft Local Plan in consultation [accessed 19 November 2015]
- Sevenoaks District Council Core Strategy. Final adopted February 2011 [accessed 19 November 2015]
- Gravesham Local Plan Core Strategy, September 2014 [accessed 19 November 2015]
- Kent Minerals and Waste Local Plan (Proposed Modifications document – submitted to the Secretary of State [accessed 19 November 2015]
- Kent Local Transport Plan (LTP3). Final adopted April 2011 [accessed 19 November 2015].
- Environment Agency and Defra - River Basin Management Plan Thames River Basin District, December 2009 [accessed 19 November 2015].
- Tonbridge and Malling Borough Council. This has not been assessed in combination as the Core Strategy was adopted in 2007 and the Council is in the process of updating its Local Plan to 2031. It is expected that the Regulation 18 (Issues and Options Stage) of the new Local Plan will be subject to initial public consultation in spring 2016. No current HRA documents were available to assess [accessed 19 November 2015]

- 2.7.1 It should be noted that, while the broad potential impacts of these other projects and plans has been considered, we have not carried out full HRA on each of these plans – we have however drawn upon existing HRAs that have been carried out for surrounding authorities and plans.

- 2.7.2** Within this document, each Policy within the DPD is subjected to HRA screening. The screening outcomes are summarised in **Table 3, Chapter 4**.

3 Pathways of Impact

3.1 Introduction

- 3.1.1 In carrying out an HRA it is important to avoid confining oneself to effectively arbitrary boundaries (such as Local Authority boundaries) but to use an understanding of the various ways in which Land Use Plans can impact on European sites to follow the pathways along which development can be connected with European sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site. It is also important to bear in mind CLG guidance which states that the AA 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'* (CLG, 2006, p.6⁷).
- 3.1.2 The following pathways of impact were considered relevant to the HRA of the Dartford Borough Plan DPD. These pathways of impact are assessed against the Draft Dartford Plan DPD and are summarised in **Table 3, Chapter 4**.

3.2 Recreational pressure

- 3.2.1 A number of European designated sites within 20km of Dartford Borough boundary have environmental sensitivities to disturbances as a result of recreational pressure. Consultation for the HRA of the (now revoked) South East Plan revealed that potentially damaging levels of recreational pressure are already faced by many European sites. Recreational use of a site has the potential to:
- Cause disturbance to sensitive species such as wintering wildfowl;
 - Prevent appropriate management or exacerbate existing management difficulties;
 - Cause damage through erosion, trampling and fragmentation; and
 - Cause eutrophication as a result of dog fouling.
- 3.2.2 Different types of European sites (e.g. coastal, heathland, chalk grassland) are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex.

3.3 Bird Disturbance Study and North Kent Visitor Survey

- 3.3.1 A study was undertaken in 2010/2011 by Footprint Ecology⁸, who looked at bird disturbance in North Kent. The study focused on recreational disturbance to wintering waterfowl on intertidal habitats and focused on part of the North Kent shoreline, stretching between Gravesend and Whitstable; encompassing three SPAs: the Thames Estuary and Marshes SPA, the Medway Estuary and Marshes SPA and the Swale SPA. The key findings of the study are as follows:
- 3.3.2 From 1,400 events (records of visitors in the bird survey areas) occurring within 200m of the birds, 3,248 species specific observations were noted of which:
- 74% resulted in no response.
 - 13% resulted in a major flight.
 - 5% resulted in a short flight.
 - 5% resulted in a short walk.
 - 3% resulted in an alert.
- 3.3.3 Dog walking accounted for 55% of all major flight observations with a further 15% attributed to walkers without dogs. After controlling for distance, major flights were more likely to occur when activities took place on the intertidal zone (compared to events on the water or events on the shore), when dogs

⁷ Department for Communities and Local Government. 2006. *Planning for the Protection of European Sites: Appropriate Assessment*. <http://www.communities.gov.uk/index.asp?id=1502244>

⁸ D. Liley & H. Fearnley (2011). Bird Disturbance Study North Kent. Footprint Ecology

were present, and the probability of major flight increased with the number of dogs present within a group.

- 3.3.4 There were significant differences between species with curlew *Numenius arquata* the species with the highest probability of major flight and teal and black-tailed godwit *Limosa limosa* the lowest.
- 3.3.5 Tide state was also significant with major flights more likely at high tide, after controlling for distance. There was also a significant interaction between distance and tide, indicating that the way in which birds responded varied according to tide.
- 3.3.6 A visitor survey was undertaken at the same time as the aforementioned bird survey by Footprint Ecology⁹. The key findings of the survey are as follows:
- 542 groups of visitors were interviewed representing information from 930 people with 502 dogs.
 - 65% (345) interviewed groups were accompanied by at least one dog.
 - 96% (521) interviewed groups were local residents who made their visit from home.
 - 70% of visitors who arrive by foot made their visits either daily or most days (in comparison to 31% who arrive by car).
 - 63% of visitors travelled to their visit location by car or van, 34% of visitors arrived by foot, 3% arrived by bicycle and 2% by public transport.
 - 50% of visitors who arrived by car lived within 4.2km of their visit location.
 - 23% of visitors stated they walked off the paths and onto the mudflats or the open beach. Of the 23% of visitors whose routes took them onto the mudflats 65% were accompanied by at least one dog.
- 3.3.7 None of the policies within the Dartford Borough Plan DPD refer directly to new development allocations, nor do they provide any quantum, locations or detail of any residential development. There are no policies that could have an impact upon any European sites within 10km of the Dartford Borough boundary, or further afield as a result of increased recreational pressure as this is a purely development management document. However, this DPD is an overarching document that prescribes development management that will act upon planned development identified within Dartford Borough Council Core Strategy. At the time of the adoption of the Core Strategy it was unclear if the scale and spatial distribution of planned development would result in a significant adverse effect. However subsequent studies of the North Kent European Sites indicate that large sites within 10km of the protection areas are likely to have a significant effect. .
- 3.3.8 In September 2013 a workshop was held to discuss potential mitigation measures and NKEPG commissioned a report to identify a mitigation package for the SPAs / Ramsar sites for development within 6km of the protected areas (this does not cover development within Dartford). A final version was submitted to the group in July 2014 (as yet unpublished) entitled Thames, Medway and Swale Estuaries – Strategic Access Management and Monitoring Strategy. This report considered a 'long list' of mitigation options that were refined into the elements considered necessary by the consultants to form the basis of the recommended strategy. The strategic mitigation package is still subject to discussion with the local authorities.
- 3.3.9 Recent research has identified that policies within the Dartford Borough Core Strategy (2011) could have Likely Significant Effects upon European designated sites as a result of increases in recreational pressure. This may stem from new residential development in Dartford within 10km of the North Kent European Designated sites (Dartford lies over 6km from the European designated sites). This issue is addressed at a strategic level within the Dartford Borough Core Strategy (2011). During consultation on the previous version of this DPD, Natural England recommended amendments to the plan to ensure no Likely Significant Effects result as a result of planned development set in the Core Strategy. In response to this, Dartford Borough Council has been cooperating with Natural England to identify likely significant impacts and a suitable strategic response to mitigation. Dartford Borough Council have commissioned Footprint Ecology to undertake an assessment of strategic mitigation options (relating to the Thames Estuary and Marshes SPA, Swale SPA and Medway Estuary Marshes and SPA) for large developments within Dartford (beyond 6km from the SPA sites) to assist in developing a suitable mitigation strategy. Results of this report are expected in early 2016. The Dartford mitigation response will work in tandem with the 6km SAMMS. This joint approach will form the basis of ongoing cooperation on this matter with NKEPG (North Kent Environment and Planning Group) partners. Whilst not containing allocations, the Dartford

⁹ Fearnley, H. & Liley, D. (2011). North Kent Visitor Survey Results. Footprint Ecology.

Development Policies Plan provides the opportunity for policy to take forward an appropriate mitigation response in the light of more recent research findings.

3.4 Atmospheric pollution

- 3.4.1 Current levels of understanding of air quality effects on semi-natural habitats are not adequate to allow a rigorous assessment of the likelihood of significant effects on the integrity of key European sites.

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

Pollutant	Source	Effects on habitats and species
Acid deposition	SO ₂ , NO _x and ammonia all contribute to acid deposition. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased N emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bedrock geology, weathering rate and buffering capacity.
Ammonia (NH ₃)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO ₂ and NO _x emissions to produce fine ammonium (NH ₄ ⁺) - containing aerosol that may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH ₃ is rapidly deposited, some of the most acute problems of NH ₃ deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO _x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO ₃), nitrogen dioxide (NO ₂) and nitric acid (HNO ₃)) can lead to both soil and freshwater acidification. In addition, NO _x can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO _x and NH ₃ emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O ₃)	A secondary pollutant generated by photochemical reactions from NO _x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O ₃ above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide SO ₂	Main sources of SO ₂ emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO ₂ emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO ₂ acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

- 3.4.2 The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH_3) and sulphur dioxide (SO_2). NO_x can have a directly toxic effect upon vegetation. In addition, greater NO_x or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.
- 3.4.3 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. Ammonia emissions are dominated by agriculture, 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 Local Development Frameworks. NO_x emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NO_x (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison¹⁰. Emissions of NO_x could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the LDF.
- 3.4.4 According to the World Health Organisation, the critical NO_x concentration (critical threshold) for the protection of vegetation is $30 \mu\text{g m}^{-3}$; the threshold for sulphur dioxide is $20 \mu\text{g m}^{-3}$. In addition, ecological studies have determined 'critical loads'¹¹ of atmospheric nitrogen deposition (that is, NO_x combined with ammonia NH_3) for key habitats within European sites.

3.5 Local Air Pollution

- 3.5.1 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"¹².

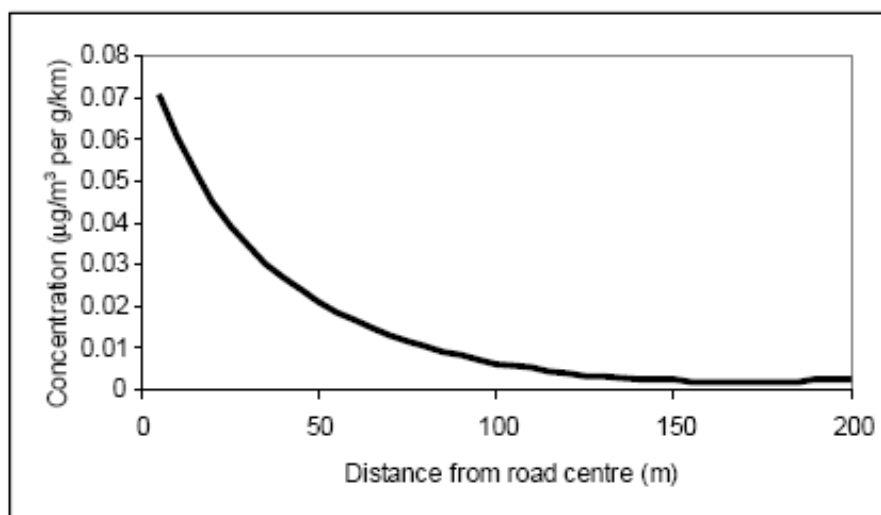


Figure 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)

- 3.5.2 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 under the Plan Development Policies Document.

3.6 Diffuse air pollution

- 3.6.1 In addition to the contribution to local air quality issues, development can also contribute cumulatively to an overall deterioration in background air quality across an entire region. In July 2006, when this issue was raised by Runnymede Borough Council in the South East, Natural England advised that their Local Development Framework 'can only be concerned with locally emitted and short range locally acting pollutants' as this is the only scale which falls within a local authority remit. It is understood that this guidance was not intended to set a precedent, but it inevitably does so since (as

¹⁰ 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>

¹¹ The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

¹² www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf

far as we are aware) it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.

- 3.6.2 In the light of this and our own knowledge and experience, it is considered reasonable to conclude that diffuse pan-authority air quality impacts are the responsibility of higher tier strategies or national government, both since they relate to the overall quantum of development within a region (over which individual districts have little control), and since this issue is best addressed at the highest pan-authority level. Diffuse air quality issues will not therefore be considered further within this HRA.
- 3.6.3 None of the policies within the DPD contain details of industrial development or roadway expansion projects. It is noted that within the Dartford Borough Core Strategy (2011) policies were identified that would have Likely Significant Effects upon European designated sites. Within the Dartford Borough Core Strategy HRA (2010) it was noted that these issues will have to be addressed at a regional scale.

3.7 Water resources

- 3.7.1 Dartford is generally an area of serious water stress (see **Figure 4**).

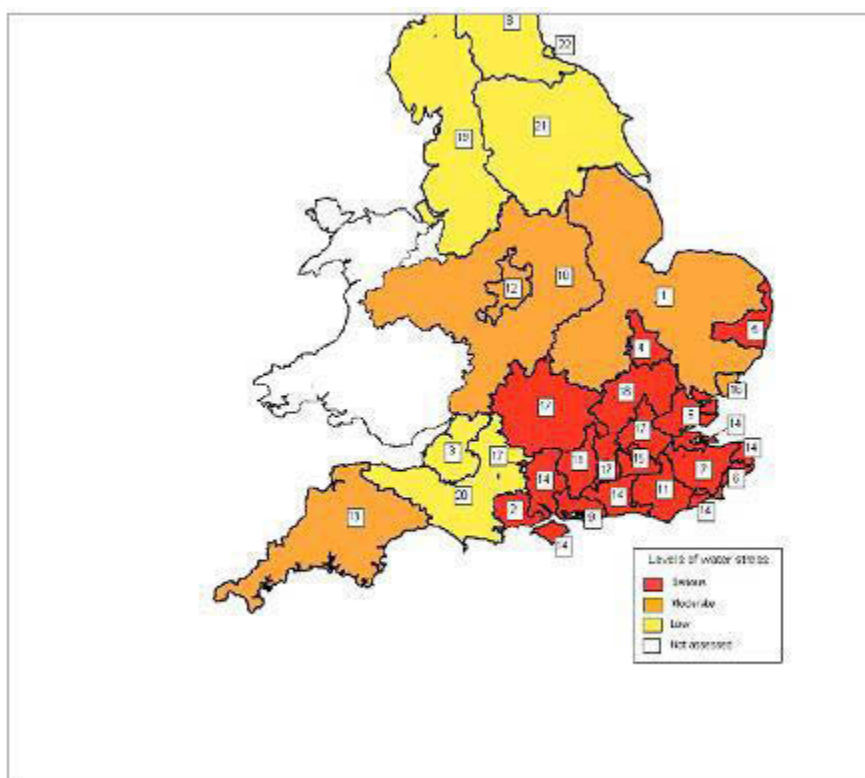


Figure 4: Areas of water stress within England

- 3.7.2 Development within Dartford Borough over the plan period will increase water demand. According to the Environment Agency's Darent and Cray Abstraction Licensing Strategy (January 2013) and Medway Abstraction Licence Strategy (February 2013), the catchment is groundwater dominated.
- 3.7.3 The Water Companies relevant to Dartford are Thames Water and Southern Water. Both companies provide wastewater treatment and supply water within Dartford Borough. Thames Water roughly serves the west of the borough and Southern Water roughly serves the east of the borough.
- 3.7.4 As the Dartford DPD contains policies that seek to reduce impact upon water resources there is no potential to have a likely significant effect upon water resources within Dartford water supply does not therefore need to be considered within the Dartford Plan DPD HRA.

3.8 Water quality

- 3.8.1 Increased amounts of housing or business development can lead to reduced water quality of rivers and estuarine environments. Sewage and industrial effluent discharges can contribute to increased nutrients on European sites leading to unfavourable conditions.

- 3.8.2 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:
- At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour. Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen.
 - Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life.
- 3.8.3 For sewage treatment works close to capacity, further development may increase the risk of effluent escape into aquatic environments. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk.
- 3.8.4 However, it is also important to note that the situation is not always simple. While nutrient enrichment does cause considerable problems on the south coast (particularly in the Solent) due to the abundance of smothering macroalgae that is produced, it is not necessarily a problem in other areas where the macroalgae are broken up by tidal wave action and where colder and more turbid water limit the build-up in the first place. Nonetheless, at this screening stage water quality impacts are considered to be an issue that requires investigation.
- 3.8.5 The Dartford DPD contains policies that are very unlikely to have a likely significant effect upon water quality within Dartford. DP5 states *'Development will only be permitted where it does not result in unacceptable material impacts, individually or cumulatively, on the Borough's environment or public health when considering Policy Map designations, areas of sensitivity highlighted in other policies in this Plan, and other potential amenity / safety factors such as:*
- air and water quality, including groundwater source protection zones';
- 3.8.6 Therefore water quality does not need to be considered within the Dartford Local Plan DPD HRA.

4 Dartford Borough Council Development Policies Plan Publication Version (December 2015)

- 4.1.1 The Dartford Borough Development Policies Plan sets out the development control policies for the borough for the next 10 years. The Dartford Local Plan currently in force comprises the Core Strategy 2011 and saved policies of the Borough Local Plan 1995. The Development Policies Plan will replace the saved policies of the 1995 plan and together with the Core Strategy will form the Development Plan for Dartford.
- 4.1.2 The policies for the Plan DPD have been screened within **Table 3**
- 4.1.3 **Table 3** identifies the initial sift of the Development Plan Document policies to determine which require further consideration in the main body of the HRA report. **Table 4** considers the potential of likely significant effects arising in-combination with other plans and strategies. Overall all have been identified as having 'green' outcomes (e.g. the HRA Screening Outcome column is highlighted in green) which means they are unlikely to lead to a likely significant effect. In particular Policy DP25 provides policy requirements in regard to large developments within 10km of the European protected sites. This policy takes forward the precautionary approach identified in the Core Strategy and is underpinned by research findings on potential for recreational impact at the North Kent Sites.

Table 3: Screening Pathways of Impact Against Dartford Borough Plan Development Policies Document Policies

Policy	Description	HRA Screening Outcome
Policy DP1 Dartford's Presumption in favour of sustainable development	<ol style="list-style-type: none"> 1. The Development Plan, which has been prepared in Dartford in accordance with national objectives to deliver sustainable development, is the statutory starting point for decision making. Planning applications that accord with the policies in the Dartford Core Strategy and this Plan, and policies in neighbourhood plans (where relevant), will be approved wherever possible, unless material considerations indicate otherwise. 2. A positive approach to considering development proposals will be taken in Dartford Borough, reflecting the presumption in favour of sustainable development contained in the National Planning Policy Framework ('NPPF') and the development needs of the Borough identified in the Core Strategy. The Local Planning Authority will work proactively with applicants, to find design and mitigation solutions to enable appropriately located development that improves the economic, social and environmental conditions in the Borough. 3. If it is demonstrated there are no Development Plan policies that relate to the application, or relevant policies are demonstrated to be out dated and of limited weight in the context of specific provisions within the NPPF (including paragraphs 211 and 215); then the Local Planning Authority will grant permission unless: <ol style="list-style-type: none"> a. adverse impacts would significantly and demonstrably outweigh the benefits, when assessed against NPPF paragraphs 18 to 219 as a whole, or b. particular policies in the NPPF indicate that development should be restricted. Where adverse impacts do not outweigh benefits, impacts must be addressed through effective and deliverable mitigation measures. 	<p>No implications</p> <p>This policy relates to sustainable development. It does not relate directly to development, nor does it provide any locations or quantum.</p> <p>There are no impact pathways present.</p>
Policy DP2: Good design in Dartford	<ol style="list-style-type: none"> 1. Development will only be permitted where it satisfies the locally specific criteria for good design in the Borough: <ol style="list-style-type: none"> a. Responding to, reinforcing and enhancing positive aspects of the locality. Opportunities to create high quality places should be taken, particularly using prominent physical attributes (including the Borough's distinctive riverside environments, cliff faces, extensive network of open spaces and tree coverage). b. Ensuring heritage assets, are retained, re-used and referenced (see policies DP12 and DP13); and that the character of historic settlements, including the market town of Dartford, is respected. c. Facilitating as sense of place, with social interaction, walking/ cycling, health and wellbeing, and inclusive neighbourhoods, through a mix of uses and careful design and layout. Good design should be reinforced and enhanced through integrating new development with the public realm, open space and natural features including rivers and lakes/ ponds. Within large developments, public art reflecting local character and heritage should be included where possible. d. Providing clear pedestrian and cycle linkages and permeability, and where appropriate, active frontages and a fine grain mix of buildings and spaces. Commercial and public facilities should be incorporated within the wider area through their location, layout and access routes. 2. In determining planning applications, the Local Planning Authority will consider how the 	<p>No implications</p> <p>This policy relates to good design within development. It does not relate directly to development, nor does it provide any locations or quantum.</p> <p><i>This policy encourages walking and cycling and to conserve water resources.</i></p> <p><i>Whilst point 3 of this policy encourages the integration of open space and natural features within development, DP25 provides for the protection of designated sites.</i></p> <p>There are no impact pathways present.</p>

	<p>height, mass, form, scale, orientation, siting, setbacks, access, overshadowing, articulation, detailing, roof form, and landscaping of the proposals relate to neighbouring buildings, as well as the wider locality. Materials should support a sense of place, and be locally sourced or recycled from within the site where possible. Only development shown to be appropriate in these respects, and the principles in clause 1 above, will be permitted.</p> <p>3. In areas of additional design or heritage sensitivity or character, such as within the setting of heritage assets, Conservation Areas, or within existing Areas of Special Character, in order for permission to be granted it will be necessary for developments to demonstrate particular design consideration has been given to ensuring proposals enhance the locality, the setting of heritage assets is maintained, and that any negative impacts are mitigated.</p> <p>4. Spaces should be designed to be inclusive, safe and accessible for all Dartford's communities, including young, elderly, disabled and less mobile people. The design of buildings, open space and the private and public realm should, where appropriate, reduce the fear of, and opportunities for, crime, paying attention to the principles of Safer Places (or any future equivalent) otherwise development will not be permitted.</p> <p>5. Layout and design should allow the efficient management/ reuse of natural resources and waste, in order for development to be permitted. Early consideration should be given to the achievement of on-site flood alleviation. Development will also be required to provide adequate and convenient arrangements for the storage of refuse and recyclable materials as an integral part of its design.</p> <p>6. Signage and advertisements should be of a scale and design that is sympathetic to the building and locality, particularly in the designated Area of Special Advertisement Control, and should not have a negative impact on visual amenity, public safety or the safe and convenient movement of pedestrians, cyclists and vehicles, otherwise permission will not be granted.</p>	
Policy DP3: Transport Impacts of Development	<p>1. Development will only be permitted where it is appropriately located and makes suitable provision to minimise and manage the arising transport impacts, in line with Core Strategy Policies CS15 and CS16. Localised residual impacts on the highway network should be addressed by well-designed off-site transport measures. Adverse effects on residential amenity or the environment must be minimised.</p> <p>2. Development will not be permitted where the localised residual impacts from the development on its own, or in combination with other planned developments in the area, result in severe impacts on one or more of the following:</p> <ol style="list-style-type: none"> road traffic congestion and air quality, safety of pedestrians, cyclists and other road-users, excessive pressure for on-street parking.. 	<p>No implications</p> <p>This policy relates to the impacts of development upon transport. It does not relate directly to development.</p> <p>There are no impact pathways present.</p>
Policy DP4 Transport Access and Design	<p>1. Development should be of a design and layout to promote walking, cycling and public transport use through provision of attractive and safe routes which address the needs of users, otherwise development will not be permitted. Proposals should include appropriate vehicular access arrangements to the new development. Guidance set out in Manual for Streets, or any future equivalent, should also be applied (bespoke access and transport approaches may be agreed at large regeneration sites, where forming a suitable</p>	<p>No implications</p> <p>This policy provides protection, restoration and enhancement for the environment wherever possible, including air and water quality, land, soil, biodiversity, geodiversity, ecological networks/corridors, designated</p>

	<p>alternative).</p> <p>2. Development will only be permitted where in line with principles in clause 1, and where appropriate proposals ensure:</p> <ol style="list-style-type: none"> Provision is made for safe and convenient access to footpaths and cycle routes, with public rights of way protected; including delivering new or enhancing existing routes between key facilities/ that link to the wider highways and green grid network; and linkages to existing neighbourhoods, where opportunity exists. Provision is made for public transport and taxis, especially at trip generating destinations and other significant scale developments, where layouts must allow penetration of routes to make community services easily accessible to all users, and feasible and efficient to operate. Services such as Fastrack should be enhanced through development that secures new network links through the site. Opportunities to promote enhanced movement and environments on and alongside rivers are maximised in developments. Facilities are provided as appropriate for people with disabilities, especially at road crossing points, public transport stops and changes in level on walking routes. The layout and siting of access is acceptable in terms of residential amenity, highway capacity and safety, free flow of traffic, cyclists and pedestrians, and visual impact. Provision is made for loading, unloading and the turning of service vehicles ensuring highway and pedestrian safety. The extent and nature of proposed car parking provision, taking into account any existing provision as relevant to the development, must be in full accordance with the adopted Parking Standards SPD. The conversion of front gardens for car parking (where a planning application required) must include provision of a vehicle crossover and only be where the garden is capable of accommodating a parking space in accordance with the parking bay minimum standards set out in the Parking Standards SPD, and with unobstructed pedestrian access to the dwelling. 	<p>and non-designated heritage assets and their setting, archaeological sites, landscape character.</p> <p>Point C has potential to result in increases in recreational pressure on and alongside rivers. However, it is noted that this should be sustainable, which by definition would not result in likely significant effects.</p> <p>There are no impact pathways present.</p>
Policy Environmental Amenity Protection	<p>DP5: and</p> <p>1. Development will only be permitted where it does not result in unacceptable material impacts, individually or cumulatively, on neighbouring uses, the Borough's environment or public health. Consideration must be given to Policies Map designations, areas of sensitivity highlighted in other policies in this Plan, and other potential amenity / safety factors such as:</p> <ol style="list-style-type: none"> air and water quality, including groundwater source protection zones intensity of use, including hours of operation antisocial behaviour and littering traffic, access, and parking noise disturbance or vibration odour light pollution overshadowing, overlooking and privacy electrical and telecommunication interference HSE land use consultation zones land instability 	<p>No implications</p> <p>This policy provides protection for the environment wherever possible, including air and water quality (including groundwater), land, soil, noise and vibration, and light pollution.</p> <p>There are no impact pathways present.</p> <p>In the previous iteration of the HRA, it was recommended that this policy should be expanded to discuss include wording to ensure the protection of European Protected sites in the wider area. Dartford Council considered this recommendation but clarified that Policy DP5 is only intended to address Dartford borough itself, rather than land outside the borough. We</p>

	<p>l) ground contamination (see clause 2 below). Development should not materially impede the continuation of lawfully existing uses. Where any impacts cannot be adequately mitigated, planning applications are not likely to be permitted.</p> <p>2. Planning applications on or in the immediate vicinity of landfill sites must be accompanied by a full technical analysis of the site and its surroundings, in accordance with Environmental Health and Environment Agency requirements for permitted sites. Analysis must establish that landfill gas will not represent a hazard on development of the site or that development will not cause adverse impacts on groundwater. Development will only be permitted where it has been clearly demonstrated that the proposed development can be safely, satisfactorily and fully achieved, including:</p> <p>a) avoidance of risks to neighbouring uses/ the wider area, and</p> <p>b) design quality, infrastructure objectives and other policy requirements such as affordable housing are not compromised as a result of high remediation costs.</p>	have accepted this point and removed our recommendation.
Policy DP6: Sustainable Residential Locations	<p>1. Residential development (Class C3) locations that have been shown to be deliverable or developable in the Dartford Strategic Housing Land Availability Assessment (SHLAA) and have been assessed as sustainable will, as non-windfalls, be permitted where the proposals are in accordance with Core Strategy policy CS10:1&2, and in accordance with other development plan policies and material considerations.</p> <p>2. Unplanned windfall residential development may be permitted following assessment in accordance with Core Strategy policy CS10:4&5, other development plan policies and material considerations (including the Dartford Housing Windfall SPD). All windfall developments for five or more dwellings will be permitted only where they additionally demonstrate that the following criteria are fully satisfied:</p> <p>a. To ensure unplanned development does not prejudice achievement of the Core Strategy target of 80%, windfall residential development must be located on 'brownfield' land. Greenfield sites will only be permitted on an exceptional basis.</p> <p>b. To reduce transport demand and minimise car use, proposals must be within easy walking distance of a range of community facilities including schools, and shops, and leisure and recreation facilities on safe and attractive walking routes; and proposals should be well located with respect to walking/ cycling and public transport to employment opportunities in the Borough. The assessment of pedestrian access shall be based on applying appropriate walking distance thresholds suitable in the Dartford context that will assist in substantial modal shifts from car use.</p> <p>c. The proposal is designed and planned to contain specific measures and improvements to reduce car use and promote alternative transport options. These should, as appropriate:</p> <p>i. encourage the use of existing walking, cycling and public transport provision,</p> <p>ii. contribute to the operation of feasible, efficient and effective sustainable transportation systems and capacity. This may on large developments require support to deliver new or improved public transport facilities, routes or services.</p> <p>3. Residential development should provide evidence proportionate to the scale of the proposal that it will not result in unacceptable or unforeseen cumulative impacts on social, community or green infrastructure that cannot be mitigated.</p>	<p>No implication</p> <p>This policy sets out provision for the sustainable placement of residential development to reduce the need to travel and car dependency.</p> <p>These are no impact pathways present.</p>
Policy DP7: Borough	<p>1. Development should maintain and provide for an appropriate range of housing stock and gardens sizes, retention or enhancement of the character, local environment</p>	No implications

housing stock and residential amenity	<p>and amenity of established residential areas, achievement of satisfactory quality of residential / householder development, and accord with policies including DP2, DP4 and DP5.</p> <p>2. Inappropriate development on residential garden land will be resisted. Proposals will be permitted only where it is shown development not would result in harm (individually or cumulatively) from:</p> <p>a. Loss of choice and diversity in the stock of housing and gardens in communities in the Borough, or</p> <p>b. Erosion of the local residential character.</p> <p>3. The extension or creation (for instance by conversion or infill) of residential dwellings will be permitted where supported by development plan policies, including clauses 1 and 2 above, material considerations, and where ensuring that:</p> <p>a. the historical pattern and form of development is preserved, and the design proposed is not visually obtrusive, with existing significant landscape features retained and/ or any loss is mitigated.</p> <p>b. access into the development is safe and facilitates ease of pedestrian movement,</p> <p>c. access into the development does not create an undue disruption to the character and appearance of an existing road frontage or unacceptable disturbance to adjacent properties.</p> <p>d. the proposal does not materially harm existing residential amenity, including through overlooking, loss of privacy, overshadowing, noise, increased level of activity and disturbance, or increased on-street parking.</p> <p>4. Development will not normally be permitted for the conversion of a single dwelling house of 120 square metres or less original net internal floor space into two or more units. Similarly, the conversion of terraced houses will also not normally be permitted.</p>	<p>This policy outlines the requirements for design and space of residential developments.</p> <p>This policy includes the provision for private and communal open space within developments, thus reducing recreational pressure upon European designated sites.</p> <p>There are no impact pathways present.</p>
Policy DP8: Residential Space and Design in New Development	<p>1. The design of new residential development will only be permitted where the quality, scale, and form of internal and external spaces created within the development provide for a choice of garden/ amenity space sizes and accessible/ adaptable dwellings, accord with criteria 2-4 below, and:</p> <p>a. For Class C3, dwellings meet Nationally Described Space Standards (unless clearly shown to be unnecessary or unviable due to site specific circumstances),</p> <p>b. For all residential development (Classes C2 and C3), developments satisfy essential principles of good quality design, including policy DP2 and amenity factors in DP5:1, including overshadowing and provision of daylight and direct sunlight, and other material considerations.</p> <p>2. Development should contribute to the accommodation requirements of residents as they age, or with restricted mobility. Accessibly/ adaptably designed provision should be maximised on each site under Core Strategy policy CS18:1c. Proposals to construct new dwellings (Class C3) that do not include any Category M4(2) units for accessible and adaptable dwellings - or Category M4(3) units for wheelchair adaptable dwellings - within each housing tenure should provide a robust justification, otherwise permission will not normally be granted.</p> <p>3. All sites for new dwellings (Class C3) shall provide a range of useable size and good</p>	<p>No implications</p> <p>This policy outlines the requirement to maintain housing stock and protecting character. It does not relate directly to development, nor does it provide any locations or quantum.</p> <p>There are no impact pathways present.</p>

	<p>quality of private amenity spaces (including residential gardens and balconies). Development will not be permitted where provision is insufficient in these respects; or where garden space for storage, access to daylight and direct sunlight, or privacy, overlooking and overshadowing is unacceptable.</p> <p>4. All residential developments of 100 new dwellings in Class C3 or larger (or equivalent scale for Class C2) will only be permitted where provision is made for inviting and accessible communal open space serving the community it serves. Proposals will be assessed against considerations within clause 2 above, as applicable. Communal open space will include a scheme for both hard and soft landscaping, and a mechanism that arranges for its on-going management and maintenance for the long-term.</p>	
Policy DP9: Local Housing Needs	<p>1. Residential development will not normally be permitted where it does not deliver an appropriate mix of affordable housing types and tenure to reflect local needs and site-specific/ financial circumstances in line with Core Strategy policy CS19:1 (and criterion 2 below). In order to address significant need, weight will be given to proposals for affordable rented housing meeting priority local requirements, if the development is sustainable in location and appropriate in scale.</p> <p>2. The Local Planning Authority will expect the provision of affordable housing to be on-site. In the exceptional circumstances when it can be justified that this would not be viable or practical, or where off-site provision would result in public benefits, provision on an alternative site in Dartford Borough may be considered. Where it is demonstrated that this cannot be provided, a commuted sum may be accepted in lieu of on-site or off-site affordable housing provision towards either delivery on an alternative site or other affordable housing initiatives. The commuted sum should be equivalent to the financial contribution were the affordable housing to be provided on site.</p> <p>3. Developers should aim to provide a proportion of Starter Homes in reasonably sized development, where sites are large enough, and able, to make Starter Home provision in addition to on-site affordable rented accommodation and other affordable tenures. Development sites where all housing wholly meets the government definition of Starter Homes will normally be permitted on vacant and surplus previously developed land consistent with policy DP6: 2 and 3, where of high quality design, and where appropriate provision is made to necessary infrastructure.</p> <p>4. All developments that include housing are encouraged to allocate and deliver a proportion of the site as plots for custom build dwellings, where based on evidence of significant local need for custom build sites. New build housing (Class C3) planning applications in the three priority locations identified in Core Strategy policy CS1 should demonstrate that the proposal is (in part or whole) custom build; or justify why the inclusion of custom build homes is specifically not feasible, or unnecessary given local need.</p>	<p>No implications</p> <p>This policy refers to the mix of housing required. No specific allocations are given.</p> <p>There are no impact pathways present.</p>
Policy DP10: Gypsy and Travellers Accommodation	<p>1. The Local Planning Authority will, through its planning and other roles, work actively to identify a supply of gypsy and traveller pitches and travelling showpeople plots sufficient to meet future identified needs in the Borough. Land for Traveller pitches and showpeople plots will be identified in accordance with the approach and principles set out in Core Strategy policy CS20:1&3.</p> <p>2. Dartford will maintain a Five Year Supply, with deliverable land to meet identified</p>	<p>No implications</p> <p>This policy sets out the provision for new plots and pitches for gypsies and travellers. It does not refer to any defined locations. The numbers of pitches and plots identified are small, so would be unlikely to have a likely significant effect</p>

	<p>requirements for traveller pitches and travelling showpeople plots. Continuing provision to meet future need will occur through a range of actions including;</p> <ol style="list-style-type: none"> Determining planning applications expeditiously in line with national policy and the development management criteria set out in clause (3) below. Maintaining and monitoring a continuous Five Year Supply, by ensuring the actions set out in the Dartford Gypsy and Traveller Implementation Strategy document are carried forward, to confirm additional site availability are achieved. <p>3. Planning applications for gypsy and traveller pitches and plots for travelling showpeople will be assessed against relevant local and national policy requirements. Proposals located in the Green Belt will be determined in accordance with the balancing exercise set out in national policy and with regard to relevant material considerations. In addition proposals must demonstrate that the site:</p> <ol style="list-style-type: none"> Is of a scale to accommodate and has the potential to provide the facilities required for future occupants in terms of amenity and in meeting site licensing requirements. Is of a scale appropriate to the ability of the surrounding community to accommodate the development without significant detriment to neighbouring residential amenity, taking account existing population size and density. Is not in an area liable to flooding Is located close to a range of services of facilities and facilities Has the ability to provide appropriate vehicular access to the site 	<p>There are no impact pathways present.</p>
<p>Policy Sustainable Technology Construction</p> <p>DP11: and</p>	<p>1. Development should be well located, innovatively and sensitively designed and constructed, to tackle climate change, minimise natural resource use and flood risk, and must look to increase water efficiency. Reflecting water scarcity and development levels in the region, and to deliver the aims of Core Strategy policy CS25, all dwellings (Class C3) created in Dartford will be permitted only where they demonstrate delivery of the water efficiency requirement level of 110 litres per person per day.</p> <p>2. In determining applications for small and large-scale low/ zero carbon technology and installations, the economic and environmental benefits of the proposal will be weighed against the individual and cumulative impact of the development. Development will only be permitted in line with national policy and where the following factors have been satisfactorily taken into consideration:</p> <ol style="list-style-type: none"> Character, and visual and residential amenity Landscape, topography, and heritage Shadow flicker and glare (if relevant) Electronic and telecommunication interference/ navigation and aviation issues (if relevant) Quality of agricultural land taken (where applicable) Ensuring installations are removed when no longer in use and land is then restored Potential effects on Policies Map designations/ protected sites or areas in the Borough including Green Belt, heritage assets, and SSSIs/ areas of high biodiversity value, and Other relevant local environmental and amenity factors (policy DP5) accounting for mitigations proposed, for example in relation to biodiversity. <p>3. Planning applications for low/ zero carbon technology and installations, or at major developments with potentially significant water supply, flooding or wastewater</p>	<p>No implications</p> <p>This policy sets out support for sustainable construction including low/ zero carbon infrastructure.</p> <p>This policy identifies that the need for energy does not automatically override environmental protections.</p> <p>There are no impact pathways present.</p> <p>In the previous iteration of the HRA, it was recommended that this policy should be expanded to discuss include wording to ensure the protection of European Protected sites in the wider area. Dartford Council considered this recommendation, but clarified that such policy wording only needs to be contained in a single policy for it to be generally applicable. They have proposed Policy DP25 as the appropriate location. We have accepted this point and removed our recommendation.</p>

	implications, will only be permitted where they set out how appropriate and effective mitigation/ management is to be delivered.	
Policy DP12: Dartford's historic environment strategy	<p>1. Development should aim to contribute to the conservation and enjoyment of the Borough's historic environment. The Local Planning Authority will work with developers on strategies to realise this in the context of site heritage opportunities and constraints. In determining planning applications regard will be had to whether reasonable steps have been taken to reveal the significance of any heritage asset or its setting to enhance the enjoyment and conservation of heritage assets and, where appropriate, the wider historic environment.</p> <p>2. Where a development proposal in Dartford Borough may affect a specific heritage asset the proposal must demonstrate that it will preserve and, where appropriate, enhance those aspects of the heritage asset and its setting that have been identified as being significant; otherwise permission will not be forthcoming. It should also, where applicable, bring it into and maintain it for productive use.</p> <p>3. Proposals incorporating heritage assets should aim to reflect and interpret the historic character of the site and conserve its most significant historical aspects in order to create a sense of place. This will apply to all relevant sites: Non-designated heritage assets; Designated heritage assets (see policy DP13), and includes:-</p> <p>4. Planning applications concerning designated heritage assets will be determined in line with policy DP13 and national policy. Proposals affecting a non-designated heritage asset will be considered applying the element of interest and the significance of the asset, in order to assess the impact of the proposed development on the asset and whether any harm has been minimised</p> <ul style="list-style-type: none"> a) Archaeological sites, including sites holding an interest as defined in the NPPF; b) Sites with significant industrial heritage; c) Land with historic landscape character; d) Historic open space, parks and gardens. <p>Where appropriate, planning applications should include proposals to enhance appreciation of heritage through the provision of interpretation.</p> <p>4. Planning applications concerning designated heritage assets will be determined in line with policy DP13 and national policy. Proposals affecting a non-designated heritage asset will be considered applying the element of interest and the significance of the asset, in order to assess the impact of the proposed development on the asset and whether any harm has been minimised.</p>	<p>No implications</p> <p>This policy provides protection for heritage and the historic environment.</p> <p>There are no impact pathways present.</p>
Policy DP13: Designated Heritage Assets	<p>1. Applicable development proposals will only be permitted where they conserve and enhance designated heritage assets (including listed buildings, scheduled monuments and conservation areas and their settings) and non-designated heritage assets of equivalent significance – particularly those of archaeological interest – and ensure development maintains or enhances the positive contribution made to the character, heritage and local distinctiveness in Dartford Borough.</p> <p>2. Where there are reasonable grounds to consider that development proposals may potentially have an impact on designated heritage assets (and/ or their setting), evidence should be included in the Design and Access Statement which demonstrates that all aspects of the historic character and distinctiveness of the locality have been fully assessed and used to inform proposals successfully, otherwise permission will be not be granted. This should assess:</p>	<p>No implications</p> <p>This policy provides protection for non-designated heritage assets.</p> <p>There are no impact pathways present.</p>

	<p>a. The significance of the heritage asset</p> <p>b. The impact of the proposal on the significance of the heritage asset</p> <p>c. The impact of the proposal on the setting of the heritage asset</p> <p>d. How the significance and/or setting of a heritage asset can be better revealed</p> <p>e. Whether the benefits outweigh any harm caused to the heritage asset</p> <p>3. The installation of energy efficiency measures and micro-renewables in historic buildings (including listed buildings) and in Conservation Areas will normally be permitted, provided that the impact on the heritage significance of the building or setting is not disproportionate to the benefit of the proposals.</p>	
DP14: Retail and Town Centre Development	<p>1. Ensuring investment is directed as planned towards centres, notably Dartford Town Centre, main town centre uses should be located sequentially and in accordance with policy CS12, considering sites within the Borough's network of centres (key shopping areas) first. Proposals should demonstrate flexibility in the design and form of the proposal in order to respond to the needs of centres and available sites. Planning applications for shops (A-Class use) outside development plan centres will not be permitted where the sequential test is not met.</p> <p>2. At Bluewater, retail development in the centre shown on the Policies Map will normally be permitted where it is in accordance with national and local policy (CS12:5&6), including through retail impact assessment, as required by CS12:5d.</p> <p>3. Outside of centres, retail development over 500sqm floorspace will be permitted only where it both satisfies the sequential test (clause 1 above) and the proposal is demonstrated to be acceptable through a retail impact assessment in line with national policy.</p> <p>4. At the ground floor in the Borough's network of centres, a shop unit of suitable operational size for a range of occupiers should be maintained at the front of the premises, with a window frontage retained. Optimal use should be made of upper floors.</p>	<p>No implications</p> <p>This policy sets out development proposals for retail and town centres. It does not provide quantum of development.</p> <p>There are no impact pathways present.</p>
DP15: Dartford Town Centre and its Primary Frontages	<p>1. The revitalisation of Dartford Town Centre as required in Core Strategy policy CS2, with major investment through main town centre uses (including retail, leisure, cultural/ entertainment uses, offices, and hotels) will be supported. Weight will be given to proposals that achieve significant enhancements to the quality of the town centre through meeting the objectives set out in CS2/ paragraph 2.18 of the Core Strategy. Where of sufficient magnitude to clearly uplift the town centre's performance, relevant enhancements would include through providing additional town centre attractions, and enhancing the public realm and heritage assets, and improving vitality by increasing retail and leisure provision and choice.</p> <p>2. The Primary Frontage defined on the Policies Map identifies the part of Dartford town centre where development for A1/ A2 purposes is prioritised. Changes of use to class A3 and A4, will be permitted in line with policy DP14:4 and where one of the following criteria are met:</p> <p>a) Adjacent shops in the frontage (on either side) are both in A1/ A2 use, or</p> <p>b) the shop has been shown to not be feasible for A1/ A2 use after sufficient effective marketing, and is vacant.</p> <p>3. Development for other uses in Primary Frontage will normally only be permitted in accordance with clause 1 above and also policy DP14:4.</p>	<p>No implications</p> <p>This policy sets out the protection of shopping areas within the Primary Frontage area of Dartford town centre.</p> <p>There are no pathways of impact present.</p>
DP16 Dartford Town	<p>1. Within Secondary Frontages on the Policies Map changes of use will be permitted:</p>	<p>No implications</p>

Centre's Areas	Secondary	<p>a) to Class A1-4 uses.</p> <p>b) to B1, D1, D2, C1 Class uses and other appropriate main town centre/ sui generis uses where in line with policies DP5, DP14:4 and DP19.</p> <p>2. Residential-led (C-Class) development will be permitted only where it is shown to enhance the vitality of Dartford Town Centre and its regeneration; typically through providing active ground floor uses, with residential uses above and/ or behind, or in line with policy DP15:1.</p>	<p>This policy sets out the protection of shopping areas within the Secondary Areas of Dartford town centre.</p> <p>There are no pathways of impact present.</p>
DP17: District Centres		<p>Shop (A-Class), and community (Class D1) in District Centres will be permitted, unless:</p> <p>a. the proposed development would result in less than 50% of the units in the Centre being retained within Class A1/ A2 use, or</p> <p>b. a Class A5 use is proposed not in accordance with policy DP19</p> <p>2. Applications for all other ground floor changes of use will only be permitted in line with DP14: 4 or where the unit is vacant and has been demonstrated to be not viable for shop and community use through sufficient effective marketing</p>	<p>No implications</p> <p>This policy outlines change of use permitted within the Local Centres.</p> <p>There are no pathways of impact present.</p>
DP18: Neighbourhood Centres		<p>Ground floor changes of use in Neighbourhood Centres will be permitted where two or more Class A1/A2 unit(s) are to be retained within the Centre, proposals satisfy DP19, and;</p> <p>a) The prospective use is non-residential and not already provided within the centre, and satisfies DP14: 4; or</p> <p>b) The unit is vacant and has been demonstrated to be not viable for retail uses through sufficient effective marketing</p>	<p>No implications</p> <p>This policy outlines change of use permitted within the Neighbourhood Centres.</p> <p>There are no pathways of impact present.</p>
DP19: Takeaways and Drinking Establishments		<p>1. Development involving the establishment of any food and drink (A3/ A4/ A5) uses in the Borough will only be permitted where it is demonstrated that criteria a to c below will be met, including with regard to evidence of potential cumulative impacts:</p> <p>a. There will be no material detrimental effects on the residential amenity of neighbours;</p> <p>b. There will be no material detrimental effects on the local environmental quality as a result of noise, vibration and smells;</p> <p>c. Access, servicing and parking arrangements for the proposal do not result in an adverse material impact on the safety and traffic flows or cause unacceptable increases to traffic and parking.</p> <p>2. The Local Planning Authority will seek to prevent the inappropriate location or clustering of takeaway premises. Takeaways (Class A5) will normally be permitted only within the development plan's network of designated centres; and permission will not normally be permitted for an A5 unit adjacent to an existing or permitted A5 unit (other than at Bluewater).</p>	<p>No implications</p> <p>This policy outlines planning policy relating to hot food and drink establishments</p> <p>There are no pathways of impact present.</p>
Policy DP20: Identified Employment Areas		<p>1. Identified Employment Areas on the Policies Map are important for providing storage, industrial and distribution services, and other business uses. Development for B-class and industrial sui generis uses will be permitted at these locations where industrial development provides for the compatible operation of different activities within the employment area by enclosing industrial processes or other measures. Development should minimise adverse impacts on adjoining uses, local character and the environment. Proposals must be acceptable with regard to hours of operation, traffic, noise, fumes, smell, dust, paint or other chemical over-spray, vibration, glare or light spill, electronic interference, or other harmful or nuisance creating material impacts (also see DP5) on neighbours or environmental assets.</p>	<p>No implications</p> <p>This policy outlines development within areas identified for employment. This policy does not set out quantum or location of development.</p> <p>There are no impact pathways present.</p>

	<p>2. At the Identified Employment Areas development for non B-class/ industrial sui generis uses will be permitted only where satisfying the following clauses (3-5) of this policy.</p> <p>3. In the Borough's three priority areas (Core Strategy policy CS1) redevelopment at Identified Employment Areas will be permitted only where it is clearly shown that significant overriding local economic and job benefits will be achieved, and also that any loss or re-location of existing employment uses is clearly justified.</p> <p>4. Small scale and well located walk-to facilities and services that are demonstrated to be critical to the functioning of Identified Employment Areas, such as workplace childcare facilities, sandwich shops and cafés, and small-scale convenience retail uses, will normally be supported providing they do not, individually or cumulatively, adversely affect the status or operation of the employment area or harm the vitality and viability of nearby centres or the town centre.</p> <p>5. Employment (B-class) proposals involving an element of direct sales will normally be supported only where the following criteria are met:</p> <ul style="list-style-type: none"> a. it is ancillary and subservient to the main employment use, and shown to take only the minimum space required b. it does not harm the vitality and viability of nearby centres or Dartford town centre c. it is sited at the front of the building with direct and convenient pedestrian access from the main visitor parking area. 	
Policy DP21: Securing Community Facility Provision	<p>1. New community facilities, will be permitted where they are in an appropriate location and of a type and scale to reflect the needs of the communities they will serve. Strategic scale developments should normally provide social and community facilities; with land secured until a facility is in operation as set out in clause 3 below.</p> <p>2. Development of existing community facilities/ land (as defined in the glossary) for non-community purposes will not be permitted unless there is clear evidence that:</p> <ul style="list-style-type: none"> a. the facility is shown to be not needed by the community (both current and future planned users), and b. all reasonable efforts have been made to preserve a community use, including exploration of appropriate solutions to retain the facility with operators/ service providers and where appropriate the local community. Consideration should include any potential future demand arising from new development located within the catchment area of the facility/ use. <p>3. Specific land that has been earmarked for community facilities through planning obligations, other formal agreements, approved planning consents or identified in Local Plan/ SPDs or other statutory documents will be safeguarded until a community facility is delivered or agreement is reached that land for a community use will not be required.</p>	<p>No implications</p> <p>This policy outlines requirements for the provision of community facilities. It does not provide any locations or quantum.</p> <p>There are no impact pathways present.</p>
Policy DP22: Development in the Green Belt	<p>Dartford's Green Belt is shown on the Policies Map, and its essential characteristics are its openness and permanence. Inappropriate development in the Green Belt, will be resisted in accordance with the National Planning Policy Framework (NPPF).</p> <p>2. Developments defined by the NPPF as potentially not inappropriate, and proposed changes of use, will be assessed to establish potential harm to the Green Belt using the following criteria:</p> <ul style="list-style-type: none"> a. extent of the impact on the openness of the Green Belt b. extent of intensification of the use of the site c. impact of an increase in activity and disturbance resulting from the development, both 	<p>No implications</p> <p>This policy outlines protection for the Green Belt.</p> <p>There are no impact pathways present.</p>

	<p>on and off the site, including traffic movement and parking, light pollution and noise</p> <ul style="list-style-type: none"> d. impact on biodiversity and wildlife e. impact on visual amenity or character taking into account the extent of screening required f. impacts that arise from infrastructure required by the development <p>3. Developments defined by the NPPF as not inappropriate will be supported where they contribute to the Core Strategy policy (CS13) objective of conserving the Green Belt as a recreational, ecological and agricultural resource and providing they meet the criteria below together with complying with other policies.</p> <p>4. Any re-use, extension or alteration of a building will only be permitted where it relates to an existing permitted permanent building of substantial construction, preserves openness and does not conflict with the purposes of keeping land in the Green Belt .</p> <p>5. Applications for re-use should take into account the character and scale of the existing building(s). In circumstances where character and scale are important to the local setting, excessive external alterations and additions will not be permitted.</p> <p>6. Extensions to buildings or infilling of previously developed sites in the Green Belt will be assessed with regard to their individual impacts and merits, and:</p> <ul style="list-style-type: none"> a. will only be acceptable where they are proportionate and subservient in appearance, bulk, massing and scale of the original building(s). b. extensions to a dwelling should generally constitute no more than 30% volume of the original dwelling (where planning permission is required). c. developments which lead to over-intensification of the use of the site will not be permitted. <p>7. The replacement of a building will only be permitted where the new building will continue in the same use and any proposed increase in size does not create a materially greater impact in appearance, bulk, massing or scale than the previous building. For replacement dwellings this will generally be limited to expansion of no more than 30% volume of the original dwelling.</p> <p>8. Concerning agriculture and farming in the Green Belt, development should not result in the loss of the best and most versatile agricultural land, and:.</p> <ul style="list-style-type: none"> a) Development should not impede the continuation of lawfully existing agricultural development and land use. b). Change of use of an agricultural building should, where planning permission is required, demonstrate it is no longer needed for its current or intended agricultural use and should not result in a need to create any further building to replace it. c) New agricultural buildings will only be permitted where it can be demonstrated that there is a need for the proposed development and they are sited and designed to minimise their impact. <p>9. Proposals for farm diversification, including shops, processing, workshops or sports and recreation, should be ancillary to the main use. It should be demonstrated that the activity is related to the main farm use and that the proposal will not create a need for new buildings or supporting infrastructure and facilities that may harm the character of the Green Belt.</p> <p>Proposals for the use of land for horses or for the erection of stables and associated facilities will be carefully considered. Assessment will include the location, layout/ quality of provision and landscaping proposed.</p>	
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	<p>11. Proposals for outdoor sport and recreation should not materially impact on the character, openness or amenity of the Green Belt or result in a deterioration of the land, landscape or biodiversity. The scale, siting, design, use and level of activity of built recreation development will be taken into account when assessing the impact of a proposal.</p> <p>12. Development and activities associated with outdoor sport and recreation should not be dependent on supporting infrastructure and facilities that unacceptably harm the character of the Green Belt. Supporting infrastructure and facilities in the Green Belt which may not be inappropriate should be directly associated with the related use and be of a scale, quality and design to minimise their impact.</p>	
DP23 Protected Local Green Space (PLGS)	<p>Selected open spaces are designated on the Policies Map as Protected Local Green Space (PLGS) to maintain their openness and special local role. PLGS should continue to provide non-extensive high quality informal recreation/ relatively calm green spaces, to support attractive, distinctive and sustainable neighbourhoods.</p> <p>2. Development of PLGS in Dartford Borough will not be permitted unless very special circumstances apply, considering national and Dartford green belt policy (particularly DP22:1-3 and DP22:10-11).</p>	<p>No implications</p> <p>This policy outlines mechanisms for protection of Local Green Space.</p> <p>There are no impact pathways present.</p>
DP24 Open Space	<p>1. Development on playing fields, sports pitches, and any land shown on the Policies Map as Borough Open Space, will not be permitted unless it is clearly demonstrated that a following criterion is satisfied:</p> <p>a) Where the sports/ open/ green space will be retained in its current primary function, with development limited to a small proportion of land, the proposal must support or enhance the existing space in this overall role. The proposal will not lead to any significant loss or deterioration in quantity and level of open space/ recreational provision.</p> <p>b) Where development will result in a significant loss in the quantity of open space or loss of sports pitches, replacement provision will be delivered in accessible walking distance of the site; unless it is clearly demonstrated that the existing provision is surplus to existing and future requirements for sports and recreation in the locality and the Borough, amenity and health/ wellbeing of residents and /or biodiversity. The replacement must be shown to be of an equivalent type and equal or greater quantity and quality to that being lost.</p> <p>2. Development of other public amenity space will only be permitted where a convincing case is made in justification. This must take account of:</p> <p>a) the qualitative and quantitative value of the existing function in providing usable open space, relative to the value of alternative provision easily available in the locality, and</p> <p>b) national policy and the benefits/ dis-benefits demonstrated to arise from the specific development proposal.</p>	<p>No implications</p> <p>This policy outlines mechanisms for protection of Borough Open Space.</p> <p>There are no impact pathways present.</p> <p>Following consultation on the previous iteration of this plan Kent Wildlife Trust recommended that this policy should be expanded to include wording that, in the event that Borough Open Space provision is lost, it should be ensured that additional recreational pressure is not transferred to European protected sites.</p> <p>We do not consider that this specific stipulation is required in policy. This is because major new development within the borough would already be required to provide their own green space provision and also because loss of greenspace per se will not necessarily result in an increase in recreational pressure within the North Kent European sites (it would depend on the type, function, accessibility, location and existing level of use among other factors).</p> <p>While the policy does permit development on greenspace, it does so only in specific circumstances and specifically seeks to ensure that there is no '<i>... significant loss or deterioration in quantity and level of open space/recreational provision in the locality</i>'.</p>

<p>Policy DP25: Nature and Conservation Enhancement</p>	<ol style="list-style-type: none"> 1. Development on the hierarchy of designated sites, featuring nationally recognised and other protected sites, shown on the Policies Map will not be permitted. Development located within close proximity to designated sites, or with likely effects on them, should demonstrate that the proposal will not adversely impact on the features of the site that define its value or ecological pathways to the site. 2. Large residential developments located up to 10km from the North Kent European Protected sites will be required to undertake a Habitats Regulation Assessment to demonstrate that the mitigation measures proposed are satisfactory to avoid potential adverse recreational effects to protected features. Information on mitigation options is available on the Council's website. 3. Proposals should seek to avoid or should reduce any significant adverse impact on existing biodiversity features. Any potential loss or adverse impact must be mitigated, including with reference to the following guidance points: <ol style="list-style-type: none"> a) Where mitigation measures require relocation of protected species this will be acceptable when accompanied by clear evidence that the proposed method is appropriate and will provide for successful translocation. b) Proposals should include provision for protection during construction, and mechanisms for on-going management and monitoring. 4. Developments will be expected to preserve and, where possible, enhance existing habitats and ecological quality, including those of water bodies, particularly where located in Biodiversity Opportunity Areas. Particular regard should be had to points a) and b) below. Developments for the enhancement of biodiversity will normally be permitted where: <ol style="list-style-type: none"> a) New biodiversity areas make use of native and local species as set out in the Kent Biodiversity Strategy and consider ecological links and adaptability to the effects of climate change. b) Biodiversity features strengthen existing green and ecological corridors; and contribute to the creation and enhancement of the Green Grid. 5. In all development proposals existing trees should be retained wherever possible. If retention is demonstrated not to be feasible, replacement provision should be of an appropriate tree species and maturity and/ or canopy cover taking into account the tree that is being replaced and the location 	<p>No implications</p> <p>This policy outlines the protection of nature conservation and enhancement.</p> <p>There are no impact pathways present.</p> <p>This is a positive policy in that it provides explicit protection for the North Kent European Protected sites, and the requirement for large residential developments within 10km of the North Kent European Protected sites to undertake HRA to demonstrate adequate mitigation measures are provided to prevent likely significant effects occurring as a result of increased recreational pressure.</p> <p>In the previous iteration of the HRA, it was recommended that this policy and supporting text should be expanded to include wording to ensure the protection of European Protected sites in the wider area. Dartford Council considered this recommendation and has made amendments to both the policy and supporting text to reflect our recommendation (see point 2 of the amended policy). We have not made any further recommendations for changes to this policy.</p> <p>This policy must also be considered within the context of the aforementioned active work Dartford Council is undertaking to identify an appropriate strategic approach to mitigation of likely impacts arising from large sites within 10km of the European sites (with the support of Footprint Ecology). Taking these both into consideration, we consider that this provides strong protection for the North Kent European sites.</p>
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Table 4: Screening Of In Combination Impact Pathways

Other Plans And Projects That We Are Considered	HRA Screening Outcome
Thames Water –Resource Management Plan 2015 – 2040. Final adopted July 2014 [accessed 19 November 2015]	<p>No implications</p> <p>There are no impact pathways present.</p>
Southern Water –Water Resources Management	<p>No implications</p>

Plan. Final adopted: 15 October 2014 [accessed 19 November 2015]	There are no impact pathways present.
Thurrock Borough Council Local Plan 2011-2026. Final adopted 21 December 2011 [accessed 19 November 2015]	No implications There are no impact pathways present.
Bexley Borough Council Core Strategy. Final adopted: 22 February 2012 [accessed 19 November 2015]	No implications There are no impact pathways present.
Bromley draft Local Plan in consultation [accessed 19 November 2015]	No implications There are no impact pathways present.
Sevenoaks District Council Core Strategy. Final adopted February 2011 [accessed 19 November 2015]	No implications There are no impact pathways present.
Gravesham Local Plan Core Strategy, September 2014 [accessed 19 November 2015]	No implications There are no impact pathways present.
Kent Minerals and Waste Local Plan (Pre-Submission Consultation Draft), January 2014 [accessed 19 November 2015]	No implications There are no impact pathways present.
Environment Agency and Defra - River Basin Management Plan Thames River Basin District, December 2009 [accessed 19 November 2015].	No implications There are no impact pathways present.
Tonbridge and Malling Borough Council.	No implications Tonbridge and Malling borough Council: This has not been assessed in combination as the Core Strategy was adopted in 2007 and the Council is in the process of updating its Local Plan. No current HRA documents were available to assess [accessed 6 November 2014]. It is considered that there will be no LSE as the HRA for any new Local Plan will take into account the Dartford Local Plan DPD in combination.

5 Concluding statement

- 5.1.1 The 'Dartford Local Plan Development Policies Document; Publication Version; July 2015' was subjected to HRA screening for likely significant effects alone and in combination. The purpose of this exercise was to determine whether any policies could result in a likely significant effect on any European designated sites in view of those sites conservation objectives either alone or in combination with other projects or plans.
- 5.1.2 In conclusion the Dartford Local Plan Development Policies Document outlines policy for development control and management. It contains policies that detail how development should take place within the Dartford Borough and contains no allocations for development. As such it is considered that it will not have a likely significant effect alone or in combination with any other plans and therefore further Appropriate Assessment is not required with regard to the potential significant impacts arising from individual policies in the plan.
- 5.1.3 However if the plan is considered in combination with the other part of the Borough Development Plan - the Dartford Core Strategy - recent research findings indicate likely significant effects arising from recreational use of residents at large sites within 10km of the European Sites. The Dartford Local Plan Development Policies Document has taken forward the uncertainty (at that time) regarding the potential for adverse effects of the scale and spatial distribution of planned development highlighted in the Core Strategy, in the light of subsequent research findings on recreational impact. Policy DP25 addresses the potential for significant impacts on the North Kent European Sites arising from large developments within 10km and requires proposals for such developments to undertake a Habitats Regulation Assessment. In addition the Council, with the help of consultants, is seeking to identify a strategic mitigation strategy which such proposals can apply in mitigating identified impacts. Therefore it is considered that the Development Policies Plan DP25 policy will prevent likely significant effects occurring as a result of increased recreational pressure from new development in Dartford Borough.

Appendix A. Descriptions of European sites

A.1 The Thames Estuary and Marshes SPA/Ramsar Site

A.1.1 Introduction

The Thames Estuary and Marshes SPA and Ramsar site is located along the North Kent Coast within the Thames Estuary, 6.3km east of the Dartford Borough boundary, whilst the SPA is located 7.2km east of the Dartford Borough Boundary. It is located both within Kent, with approximately 10% within Essex, north of the River Thames.

The Ramsar information Sheet describes the site as a '*complex of brackish, floodplain grazing marsh ditches, saline lagoons and intertidal saltmarsh and mudflat. These habitats together support internationally important numbers of wintering waterfowl. The saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates*'.

A.1.2 Reason for designation

Thames Estuary & Marshes Ramsar site

Criterion 2:

*'The site supports more than 20 British Red Data Book invertebrates and populations of the GB Red Book endangered least lettuce (*Lactuca saligna*), as well as the vulnerable slender hare's-ear (*Bupleurum tenuissimum*), divided sedge (*Carex divisa*), sea barley (*Hordeum marinum*), Borrer's saltmarsh-grass (*Puccinellia fasciculata*), and dwarf eelgrass (*Zostera noltei*)'*

Criterion 5:

The site supports assemblages of international importance with species with peak counts in winter: 45,118 waterfowl (5 year peak mean 1998/99-2002/2003)

Criterion 6:

Species/populations occurring at levels of international importance with peak counts in spring/autumn:

Black-tailed godwit, *Limosa limosa islandica*, Iceland/W Europe - 1,640 individuals, representing an average of 4.5% of the population (5 year peak mean 1998/9-2002/3).

Species/populations occurring at levels of international importance with peak counts in winter:

Dunlin, *Calidris alpina alpina*, W Siberia/W Europe - 15,171 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3); and, Red knot, *Calidris canutus islandica*, W & Southern Africa (wintering) - 7,279 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3).

Thames Estuary & Marshes SPA

The site is designated as an SPA for supporting bird populations of European importance for the over-wintering species of:

- Dunlin *Calidris alpina alpina*
- Red knot *Calidris canutus*
- Hen harrier *Circus cyaneus*
- Black-tailed godwit *Limosa limosa islandica*
- Grey plover *Pluvialis squatarola*
- Avocet *Recurvirostra avosetta*
- Redshank *Tringa totanus*

Over winter the area regularly supports: 75019 waterfowl (5 year peak mean 21/03/2000) including: *Recurvirostra avosetta*, *Pluvialis squatarola*, *Calidris canutus*, *Calidris alpina alpina*, *Limosa limosa*, *islandica*, and *Tringa totanus*.

The site is designated as an SPA for supporting bird populations of European importance for the staging species of:

- Common ringed plover *Charadrius hiaticula*

A.1.3 Environmental Pressures

- Coastal squeeze and erosion of intertidal habitat within the site.
- The intertidal area is vulnerable to disturbance from water borne recreation. This is being addressed by information dissemination as part of an estuary management plan.
- Changing grazing regimes
- Water supply to grazing marsh has decreased. Direct land take from the site and indirect disturbance
- Hydrological effects of development
- Eutrophication

A.2 The Medway Estuary and Marshes SPA/Ramsar site

A.2.1 Introduction

The Medway Estuary SPA and Ramsar site is located along the North Kent Coast within the Thames Estuary, approximately 14.3km east of the Dartford Borough boundary.

The Ramsar information Sheet describes the site as a '*complex of rain-fed, brackish, floodplain grazing marsh with ditches, and intertidal saltmarsh and mudflat. These habitats together support internationally important numbers of wintering waterfowl. Rare wetland birds breed in important numbers. The saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates.*'

A.2.2 Reason for designation

Medway Estuary & Marshes SPA

The site is designated as an SPA for supporting bird populations of European importance for the breeding species of:

- Avocet *Recurvirostra avosetta*
- Little tern *Sterna albifrons*
- Common tern *Sterna hirundo*

The site is designated as an SPA for supporting bird populations of European importance for the over-wintering species of:

- Tundra swan *Cygnus columbianus bewickii*
- Avocet *Recurvirostra avosetta*

Medway Estuary & Marshes Ramsar site

The Ramsar information sheet states that Medway Estuary and Marshes site comprises, "*A complex of brackish and freshwater, floodplain grazing marsh with ditches, and intertidal saltmarsh and mudflat. These habitats together support internationally important numbers of wintering waterfowl. Rare wetland birds breed in important numbers. The saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates*".

Criterion 2: The site supports nationally scarce plants and at least seven British Red data book invertebrates.

Criterion 5: Assemblages of international importance: Species with peak counts in winter: 47637 waterfowl (5 year peak mean 1998/99-2002/2003).

Criterion 6: – Species/populations occur at levels of international importance. The site has bird species occurring in internationally important numbers: Redshank, grey plover (spring/autumn), dark-bellied brent goose, shelduck, pintail, red knot, ringed plover, dunlin (winter)

A.2.3 Environmental Pressures

- Erosion of intertidal habitat within the site due to natural processes and the effects of sea defences and clay extraction.
- The intertidal area is also vulnerable to disturbance from water borne recreation
- The terrestrial part of the site depends on appropriate grazing and management of water.
- The site is sensitive to change in grazing levels.
- Water levels: abstraction, and drainage for arable
- Recreational disturbances

A.3 North Down Woodlands SAC

A.3.1 Introduction

The SAC is located 5.3km south east of the Dartford Borough boundary. The site contains a mosaic of habitats including grassland, scrub and various types of woodland including beech and yew on a chalk substrate. It is noted to contain outstanding assemblages of plants and invertebrates.

A.3.2 Reason for Designation

- *Asperulo-Fagetum* beech forests
- Yew *Taxus baccata* woods

A.3.3 Environmental Pressures

- Scrub encroachment upon the grassland habitats

A.4 Peters Pit SAC

A.4.1 Introduction

The SAC is located 10.1km south east of Dartford Borough boundary. The SAC was an active chalk quarry until about 20 years ago with additional land consisting of old agricultural land that has been stripped. The site contains undulating terrain in which rain fed ponds, have developed. Terrestrial habitats present include chalk grassland, ruderal vegetation as well as scrub and developing woodland. The site supports a large population of great crested newts.

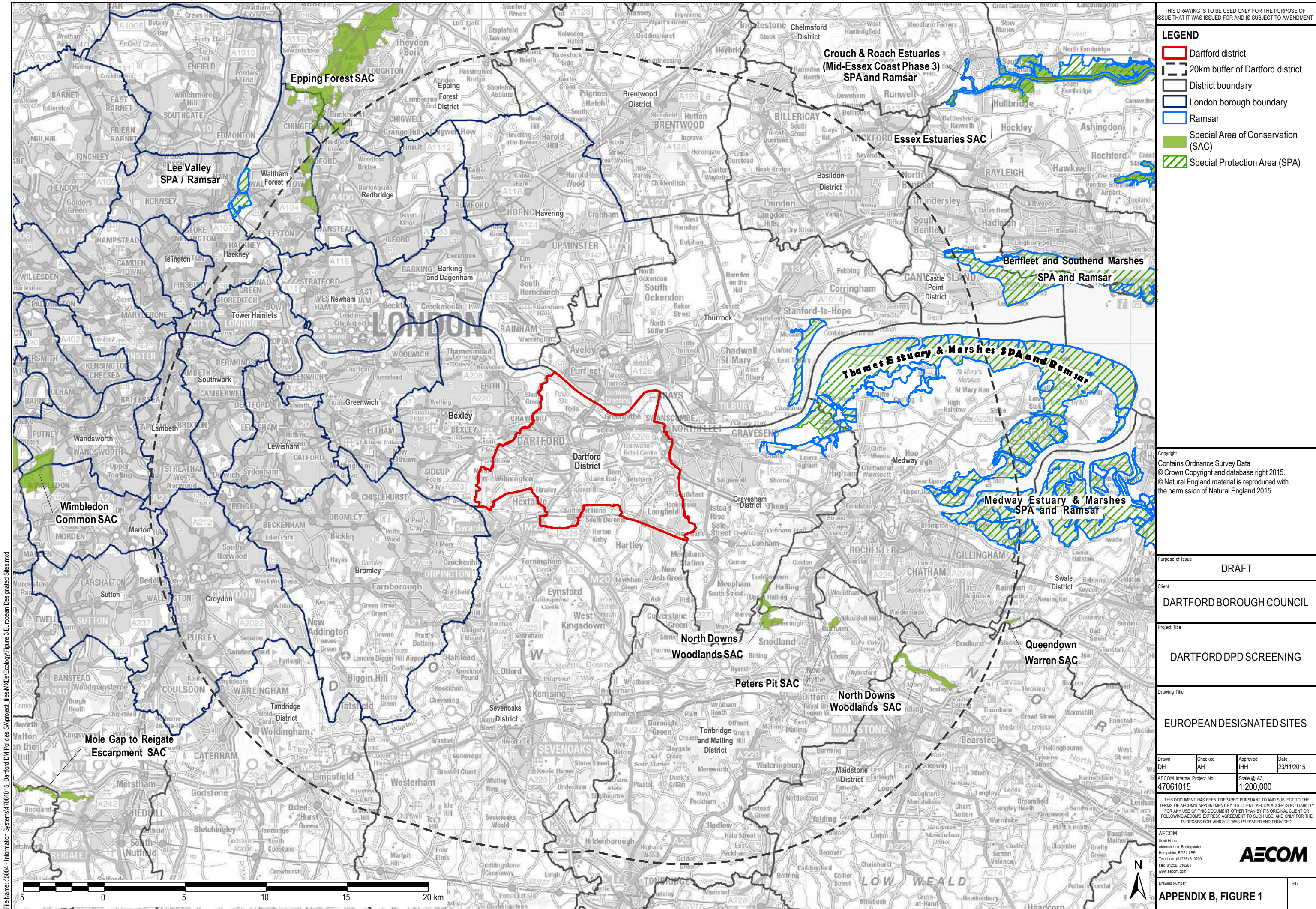
A.4.2 Reason for Designation

- Great crested newt

A.4.3 Environmental Pressures

- Habitat loss via scrub encroachment of the grassland and waterbodies
- Recreational disturbances

Appendix B.Location of European Designated Sites in Relation to Dartford Borough



File Name: I:\5004 - Information Systems\47061015 - Dartford DM Policies SA\project_files\MXDs\Ecology\Figure 3 European Designated Sites.mxd

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