

If you require this document to be translated into another language, or Braille, on audiotape, or a large print version, or in any other format, please contact:-

**The Forward Planning Section
Dover District Council
White Cliffs Business Park
Whitfield
Dover
CT16 3PJ**

**Telephone 01304 872477 / 872043
Fax 01304 872351**

Email: forwardplanning@dover.gov.uk



Contents

1 Introduction	5
Current Legislation	5
Scope and Objectives	6
2 Methodology	7
Key Principles	7
3 Pathways of Impact	13
Introduction	13
4 Dover to Kingsdown Cliffs SAC	21
Introduction	21
Features of European Interest	21
Condition Assessment	21
Key Environmental Conditions	21
Potential Effects of the Plan	22
Avoidance and Mitigation	23
5 Lydden and Temple Ewell Downs SAC	27
Introduction	27
Features of European Interest	27
Condition Assessment	27
Key Environmental Conditions	27
Potential Effects of the Plan	28
Avoidance and Mitigation	29
6 Thanet Coast and Sandwich Bay	33
Introduction	33
Features of European Interest	33
Features of International Interest: Ramsar criteria	34
Condition Assessment	34
Key Environmental Conditions	34
Potential Effects on the Plan	35

Avoidance and Mitigation	36
7 Blean Complex SAC	39
Introduction	39
Features of European Interest	39
Condition Assessment	39
Key Environmental Conditions	39
Potential Effects of the Plan	39
8 Folkestone to Etchinghill Escarpment SAC	41
Introduction	41
Features of European Interest	41
Condition Assessment	41
Key Environmental Conditions	41
Potential Effects of the Plan	42
Avoidance and Mitigation	42
9 Stodmarsh SAC, SPA and Ramsar	45
Introduction	45
Features of European Interest	45
Features of International Interest: Ramsar criteria	45
Condition Assessment	45
Key Environmental Conditions	45
Potential effects of the Plan	46
10 Conclusions of the Preferred Options Assessment	49
11 Submission Core Strategy	53
Public Consultation	53
Changes to the Core Strategy	57
Amendments to the Habitat Regulations Assessment	58
Appendix 1. 'Tiering' In Habitat Regulations Assessment	67
Appendix 2. Core Strategy Policies	69
Appendix 3 - EC Advice on AA Mitigation Measures	81

1 Introduction

Current Legislation

1.1 In October 2005, the European Court of Justice ruled that the UK had failed to correctly transpose the provisions of Articles 6(3) and (4) of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora – the Habitats Directive – into national law. Specifically, the UK had failed to ensure that land use plans are subject to Appropriate Assessment⁽ⁱ⁾ where they might have a significant effect on a Natura 2000 site (Special Areas of Conservation, SACs and Special Protection Areas, SPAs). It is Government policy (as described in Planning Policy Statement 9: Biodiversity & Geological Conservation) for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Natura 2000 sites. As such, Appropriate Assessments should also cover these sites.

1.2 The need for Habitat Regulations Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by Regulation 48 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended in 2007). The ultimate aim of HRA is 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.

1.3 The Habitats Directive applies the precautionary principle to protected areas; plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This is in contrast to the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; it simply says that the assessment findings (as documented in the ‘environmental report’) should be ‘taken into account’ during preparation of the plan or programme. In the case of the Habitats Directive, plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

1.4 In order to ascertain whether or not site integrity will be affected, an HRA should be undertaken of the plan or project in question:

Box 1. The legislative basis for Habitat Regulations Assessment

Habitats Directive 1992 Article 6 (3) states that:

“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.”

Conservation (Natural Habitats &c. Regulations) 1994 (as amended)

Regulation 48 states that:

“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives”.

ⁱ The term Habitat Regulations Assessment (HRA) has also recently come into currency to describe the process and will be used for the remainder of this document.

1.5 Following the European Court ruling, the former Office of the Deputy Prime Minister (ODPM; now CLG) indicated that the regulations implementing the Habitats Directive in the UK would be amended to ensure that HRA explicitly applies to land use plans⁽ⁱⁱ⁾.

1.6 Planning Policy Statement (PPS) 9 states that Ramsar sites (wetlands of international importance) should receive the same protection as designated SACs and SPAs.

Scope and Objectives

1.7 Scott Wilson has been appointed by Dover District Council (“the Council”) to assist in undertaking a Habitat Regulations Assessment (HRA) of the potential effects of the Local Development Framework Core Strategy (from Preferred Options to Submission) on the Natura 2000 network. The role of the Natura 2000 sites (SACs, SPAs, Ramsar) is to provide statutory protection for terrestrial and coastal sites that are of European and global importance as a result of habitats or species contained within them.

1.8 The LDF, alongside the Regional Spatial Strategy (RSS) for the South East, will supersede the current Local Plan (site allocations and generic development control policies) and Kent and Medway Structure Plan (strategic planning framework for the protection of the environment, major transport priorities, and the scale, pattern and broad location of new development including provision for new housing and major economic development across Kent and Medway).

This report is intended to present a complete view of the Habitat Regulations Assessment work undertaken for the Dover Core Strategy from Preferred Options to Submission. An HRA of the Preferred Options Core Strategy was first published in February 2008. That HRA is documented in Chapters 4 – 10 of this report. Since that time, as part of the development of the Submission Core Strategy, several changes have been made to draft policies (particularly regarding an increase in the scale of housing provision at Whitfield). In order to ensure that the HRA is still representative of the Core Strategy it is therefore necessary to subject these policy changes to assessment. In order to maintain clarity, minimise repetition and show how the Core Strategy and HRA have evolved over time, these Submission stage changes are assessed in a wholly new chapter (Chapter 11). Chapter 11 also addresses responses received to the Preferred Options HRA consultation and considers changes to the evidence base in the period since the last iteration of HRA (such as existence of an outline Water Cycle Study) in order to present a final revised set of recommendations. Readers interested in the appraisal of the differences between the Preferred Options and Submission stage Core Strategy and how these have affected our final recommendations and conclusion should therefore go directly to Chapter 11; readers interested in the entire HRA process from Preferred Options onwards should start with Chapter 2.

ii The Government previously argued that HRA did not apply to development plans on the basis that "Development in this context does not include development plans, since the plan itself cannot authorize developments that would affect the site" (PPG9: Nature Conservation, 1994).

2 Methodology

Key Principles

2.1 This section sets out the basis of the methodology for the Habitat Regulations Assessment.

2.2 Scott Wilson has adhered to several key principles in developing the methodology – see Table 1.

Table 1. Key principles underpinning the proposed methodology

Principle	Rationale
Use existing information	We will use existing information to inform the assessment. This will include information gathered as part of the SA of the emerging LDF and information held by Natural England, the Environment Agency and others.
Consult with Natural England, the Environment Agency and other stakeholders	We will ensure continued consultation with both Natural England and the Environment Agency for the duration of the assessment. We will ensure that we utilise information held by them and others and take on board their comments on the assessment process and findings.
Ensure a proportionate assessment	We will ensure that the level of detail addressed in the assessment reflects the level of detail in the LDF (i.e. that the assessment is proportionate). With this in mind, the assessment will focus on information and impacts considered appropriate to the local level.
Keep the process simple as possible	We will endeavour to keep the process as simple as possible while ensuring an objective and rigorous assessment in compliance with the Habitats Directive and emerging best practice.
Work in effective partnership	We recognise that there is a lack of formal guidance for undertaking plan level AA. For this reason, it will be particularly important for us to work in partnership with key stakeholders including the Council itself, Natural England, the Environment Agency and others to ensure that the assessment builds on different ideas and has the necessary level of 'buy in'.
Ensure a clear audit trail	We will ensure that the AA process and findings are clearly documented in order to ensure a discernible audit trail.

2.3 It should be noted that there is little experience in applying HRA to the Local Development Framework. The approach that is being followed therefore reflects a combination of current HRA practice as this applies to individual projects coupled with emerging ideas and experience as to how HRA should best be applied to plans.

2.4 The essential elements of the methodology follow those adopted for the HRA of other land use plans, including the draft South East Plan. 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 Appendix 1 for a summary of this ‘tiering’ of assessment).

Screening (Likely Significant Effects)

2.5 The first stage of any Habitat Regulations Assessment is a Likely Significant Effect test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

2.6 *“Is the project or plan, either alone or in combination with other relevant projects and plans, likely to result in a significant adverse effect upon European sites?”*

2.7 Individual policies/measures within the Plan were evaluated in detail against the site’s conservation objectives, considering the environmental conditions necessary to maintain the integrity of the European site.

2.8 If significant adverse effects are considered unlikely, the policy or site can be screened out of the assessment and considered no further. The steps involved in screening are detailed in Box 2.

Box 2. The steps involved in screening an Appropriate Assessment

Screening
1. Make a decision as to whether there is any mechanism by which the plan can affect any European site by altering its environmental conditions, focusing on those sites within the administrative boundary or which may be linked to development within the boundary by a pathway.
2. Determine the reasons for the European designation of these sites.
3. Explore the environmental conditions required to maintain the integrity of the selected sites and become familiar with the current trends in these environmental processes.
4. Gain a full understanding of the Plan and its policies and consider each policy within the context of the environmental processes – could the policy lead to an impact on any identified process?
5. Decide if the identified impact is likely to lead to a significant effect.
6. Repeat for each policy and site allocation.
7. Identify other plans and projects that might affect these sites in combination with the Plan and decide whether there is likely to be a significant effect “in combination”. In practice ‘in combination’ assessments are only really necessary if the plan element in question has been screened out when considered in isolation.

2.9 In this case, the plan as a whole has been evaluated in detail within the context of existing knowledge of the various ways in which development can impact on European sites, accumulated from carrying out HRA’s across the country at all geographical scales (from individual projects through to Regional Spatial Strategies). If it cannot be concluded with confidence that adverse effects are unlikely, we have deferred to the precautionary principle and assumed that they require investigation in the Appropriate Assessment.

2.10 The screening process for the plan was completed during earlier stages of the HRA for the Core Strategy. In summary, it was concluded that the Core Strategy could not be screened out as being inherently unlikely to lead to adverse effects on European sites and therefore required Appropriate Assessment. Individual policies were re-screened during the Appropriate Assessment in order to determine whether they had the potential to lead to adverse effects. The results of this exercise are presented later in this chapter and in Appendix 2.

Appropriate Assessment and mitigation stage

2.11 Figure 1 below outlines the stages of AA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no likelihood of significant adverse effects is demonstrated to remain.

2.12 Project-related AA often requires bespoke survey work and novel data generation in order to accurately determine the significance of adverse effects. In other words, it needs 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.

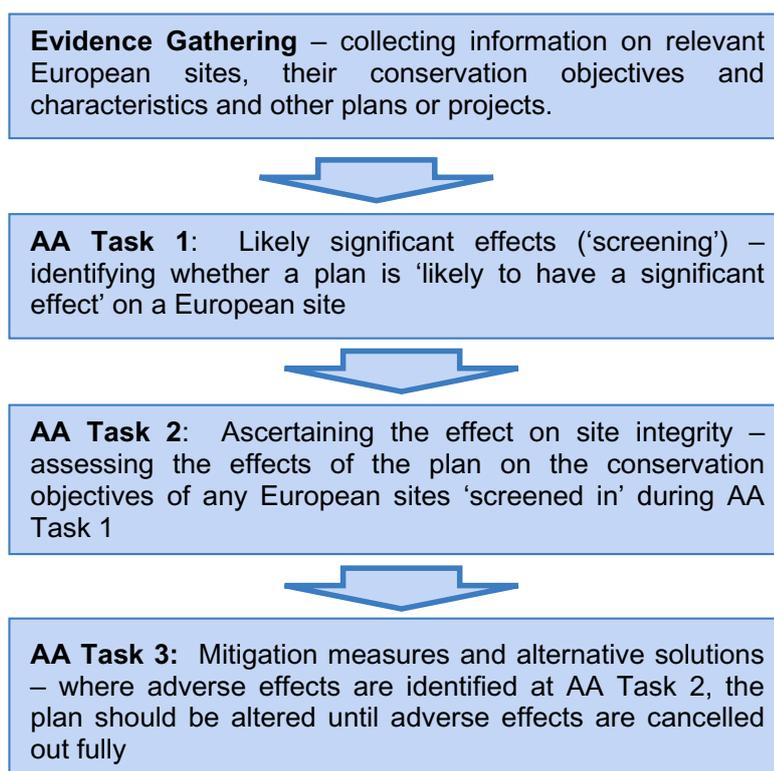


Figure 1: Four-Stage Approach to Habitat Regulations Assessment (Source: CLG, 2006)

2.13 The level of detail concerning developments that will be permitted under land use plans will never be sufficient to make a detailed quantification of adverse 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 Appendix 1 for a summary of this 'tiering' of assessment).

2.14 In evaluating significance, Scott Wilson have relied on our professional judgment as well as stakeholder consultation. We believe that we are in an excellent position to provide such judgment given our previous experience in undertaking HRA of plans in the East of England, South East and North West at RSS, LDF and Area Action Plan levels.

Confirming other plans and projects that may act in combination

2.15 It is neither practical nor necessary to assess the 'in combination' effects of the Core Strategy within the context of all other plans and projects within Kent. In practice therefore, in combination assessment is only really of relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects relate to the additional housing and commercial/industrial allocations proposed for other Kent authorities over the lifetime of the Core Strategy and the expansion of Dover port.

2.16 Plans and projects relevant to the pathways identified in Chapter 3 have been identified in order to check whether the LDF could cause significant impacts upon European sites in combination with their policies or activities. Potential impacts of the LDF assessed in AA Task 1 and identified pathways have been revisited according to this knowledge in order to identify any likely significant effects that may result in combination with the Core Strategy, especially those not previously considered to pose significant risk individually (see AA Task 1 below).

2.17 The South East Plan provides a good introduction to proposals for areas surrounding Dover.

2.18 For the purposes of this assessment, we have reviewed the following documents; other more technical reports and papers are referenced in the text as appropriate:

Author	Document	Relevant contents
Dover District Council (2007)	Core Strategy –Issues and Options	Development within District.
Dover District Council (2007)	Site Allocations Document	Sets out the specific areas for development
Scott Wilson (2007)	Sustainability Appraisal	Background Context
Folkestone and Dover Water (2006)	Strategic Direction Statement: Water for Our Future	Water supplies in the district
Environment Agency (2003)	Stour Catchment Abstraction Management Strategy	Understanding of existing hydrological conditions at Natura 2000 sites.
Kent County Council	Local Transport Plan for Kent 2006-2011	Transport schemes relevant to Dover district
Kent County Council	Vision for Kent (2006)	Community Strategy for Kent to 2026.
Dover District Council	Dover District Community Strategy: 2003-2010	Community Strategy for Dover
South East England Regional Assembly, 2006	The South East Plan. Draft plan for submission to Government. 2006	Housing figures for surrounding Authorities. Other local proposals. General development context for Southeast of England.

Author	Document	Relevant contents
Scott Wilson / Levett-Therivel (2006)	Appropriate Assessment of the South East Plan	The Appropriate Assessment for the Regional Spatial Strategy
South East England Regional Assembly, 2006	Sustainability Appraisal of the South East Plan	The Sustainability Appraisal for the Regional Spatial Strategy
Government Office for the South East on behalf of the Secretary of State, 2008	The South East Plan Proposed Changes (July 2008)	Amendments to the draft South East Plan in the light of the panel report
Scott Wilson/Levett-Therivel (2008)	Sustainability Appraisal and Habitat Regulations Assessment of the Secretary of State's proposed changes to the South East Plan	The Appropriate Assessment and Sustainability Appraisal for the changes to the RSS
JNCC	Natura 2000 Data Sheets, Ramsar citations and component SSSI citations	Data concerning the interest features of European Sites
Kent County Council (2006)	Kent and Medway Structure Plan	Background information
Countryside Agency (2006)	England Leisure Day Visits – the Results of the 2005 Survey	This survey has been used to extract broad patterns of recreational use within England

2.19 An HRA (including Appropriate Assessment) of the Preferred Options Core Strategy was published in February 2008. That HRA is documented in Chapters 4 – 10 of this report. Since that time, as part of the development of the Submission Core Strategy, several changes have been made to draft policies (particularly regarding an increase in the scale of housing provision at Whitfield). In order to ensure that the HRA is still representative of the Core Strategy it is therefore necessary to subject these policy changes to assessment. In order to maintain clarity, minimise repetition and show how the Core Strategy and HRA have evolved over time, these Submission stage changes are assessed in a wholly new chapter (Chapter 11).



3 Pathways of Impact

Introduction

3.1 One of the first necessary steps for Evidence Gathering is to develop a 'long list' of European sites potentially affected by the plan and this requires an understanding of the various ways in which land use plans can impact on European sites. Current guidance suggests that the following European sites be included in the long list:

- all sites within the authority's boundary; and
- other sites shown to be linked to development within the authority's boundary through a known 'pathway' (discussed below)

Briefly defined, pathways are routes by which a change in activity within Dover District can lead to an effect upon a European site. In terms of this second category of European site listed above, CLG guidance 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.6). As a result, the long list is inevitably limited to those Natura 2000 sites for which recommended mitigation or alternatives to LDF policy can contribute significantly towards the protection of those sites and their nature conservation objectives. The following pathways are likely to require consideration.

Urbanisation

3.2 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that result specifically from recreational activity. The list of urbanisation impacts can be extensive, but core impacts can be singled out:

- Increased fly-tipping - Rubbish tipping is unsightly but the principle adverse ecological effect of tipping is the introduction of invasive alien species with garden waste. Garden waste results in the introduction of invasive aliens precisely because it is the 'troublesome and over-exuberant' garden plants that are typically thrown out⁽ⁱ⁾. Alien species may also be introduced deliberately or may be bird-sown from local gardens.
- Cat predation. A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period⁽ⁱⁱ⁾. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation. Turner and Meister (1988) found that the mean range of cats was 371m although the maximum range was 1578m⁽ⁱⁱⁱ⁾.

3.3 Urbanisation effects are considered likely to derive mainly from development and to occur within close proximity of the site. When developing a delivery plan for the Thames Basin Heaths, Natural England identified 400 m from the SPA as the distance within which they felt no new development could be allowed because of the general 'urbanisation' effects (car dumping, noise, cats etc) that

i Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

ii Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33,2 174-188

iii Turner, Dennis C.; Meister, Othmar. 1988. Hunting behaviour of the domestic cat. Chapter 9 in *THE DOMESTIC CAT: THE BIOLOGY OF ITS BEHAVIOUR* (D.C. Turner & P. Bateson (Eds). Cambridge: Cambridge University Press. pp. 111-121

would be experienced by the SPA, although this did specifically relate to a situation and European site in which ground nesting birds with vulnerable chicks (Dartford warbler, woodlark and nightjar), none of which are present at any of the European sites in Dover. While the zone is therefore not directly applicable to Dover, to allow for some uncertainty in applying this to other sites and in line with the precautionary principle, we in this assessment used a figure of 500m to form a convenient indicator of when general urbanisation issues require scoping into consideration due to the very close proximity of development. This does however mean that all sites will automatically be adversely affected by development situated within this buffer, nor does it constitute a 'no build' zone of any kind.

Recreational causes

3.4 All types of terrestrial European site, including woodlands, can be affected by trampling (including activities such as horse riding), which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths. Motorcycle scrambling and off-road vehicle use can cause more serious erosion, as well as disturbance to sensitive species.

- Wilson & Seney (1994)^(iv) examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, It was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole et al (1995a, b)^(v) conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
- Cole (1995c)^(vi) conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
- Cole & Spildie (1998)^(vii) experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause

iv Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88

v Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203-214; Cole, D.N. 1995b. Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology* 32: 215-224

vi Cole, D.N. 1995c. Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

vii Cole, D.N., Spildie, D.R. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.

3.5 All of the estuaries are extensively used for recreational activity by people from a wide-ranging catchment that includes the whole of Kent and also draw visitors from further afield. Activities of walkers (particularly dog walkers) and water-borne recreation can, if carried out in winter, have a significant disturbing effect upon wintering waterfowl thus increasing energetic expenditure (as birds have to take flight more frequently) and competition on the less disturbed mudflats^(viii).

3.6 The latest England Day Visits Survey^(ix) indicates that people typically travel:

- 10.8 miles (17.2 km) to visit a countryside site for the day;
- 11.3 miles (18.1 km) to visit a woodland site for the day; and
- 16 miles (25.5 km) to visit a coastal site for the day.

3.7 In all cases, more journeys were made by car than on foot. It should be noted that these are generalised figures; individual European sites may draw the majority of their visitors from a much smaller catchment (e.g. Thames Basin Heaths SPA, which draws 96% of its visitors from within 5 km^(x)) or a much larger one (e.g. the New Forest SAC, for which 55% of visitors are holidaymakers rather than locals^(xi)).

3.8 There is currently an absence of accurate visitor information for specific European protected sites in the vicinity of Dover. The Kent Downs AONB is currently rated as having a 'high' level of visitors, but accurate figures are not known. However, if we take the England Day Visits data (which was based on a phone poll with 23,500 respondents) as broadly 'typical' of the distances that residents of Dover District may travel to visit European sites, this means that all of those sites within these distances could be affected by trampling or (in the case of Special Protection Areas) disturbance of sensitive wildlife as a result of the population increase in Dover District from the new homes that is part of the Core Strategy.

Atmospheric pollution

3.9 Current levels of understanding of air quality effects on semi-natural habitats are not adequate to allow a rigorous assessment of the potential for adverse impacts on the integrity of key European sites.

3.10 The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). 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, such as the calcareous grasslands found within the district. Sulphur dioxide deposition can lead to acidification of calcareous or mesotrophic habitats and thus a change in their species composition away from calcicolous plant species and towards those which are more typical of acidic habitats.

viii West, A.D., et al. 2002. Predicting the impacts of disturbance on shorebird mortality using a behaviour-based model. *Biological Conservation* 106:3, 319-328

ix Various. 2006. England Leisure Visits: the Results of the 2005 Survey. Countryside Agency

x Liley, D. et al. 2005. Visitor access patterns on the Thames Basin Heaths. English Nature Research Report, English Nature, Peterborough

xi Forestry Commission. 2005. New Forest Visitor Survey.

3.11 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 SO₂ or NH₃ emissions will be associated with Local Development Frameworks. NOx 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 NOx (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison^(xii). Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the LDF.

3.12 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 µgm⁻³; the threshold for sulphur dioxide is 20 µgm⁻³. In addition, ecological studies have determined 'critical loads'^(xiii) of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH₃). 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"^(xiv).

Diffuse air pollution

3.13 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'^(xv) as this is the only scale which falls within a local authority remit. It is understood that this guidance was not intended to set a precedent, but it inevitably does so since (as far as we are aware) it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.

3.14 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 Regional Spatial Strategies, both since they relate to the overall quantum of development within a region (over which individual boroughs 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 but is considered further in the East of England Regional Spatial Strategy.

Water resources

3.15 The South East has experienced low rainfall for most of the last few years, including dry winters. Expected climate change trends for the South East are for drier summers, wetter winters, and more extreme events. If the current climate trends continue, it may be impractical in the longer term to preserve wetland habitats characteristic of our former climate but in the short and medium term, it is clear that strenuous efforts to reduce the risk of water stress in European wetland sites should be a priority.

3.16 Although Dover town itself currently obtains most of its water from the River Dour, Sandwich Bay (and the associated SPA and Ramsar site) and Stodmarsh SAC/SPA/Ramsar are hydraulically linked to the River Stour from which water is abstracted to supply settlements in north Dover district (principally Sandwich) as well as Ashford, Canterbury and Thanet, and into which treated sewage

xii 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>

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

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

xv English Nature (16 May 2006) letter to Runnymede Borough Council, 'Conservation (Natural Habitats &c.) Regulations 1994, Runnymede Borough Council Local Development Framework'

effluent is discharged. Although most abstraction for the Public Water Supply is from groundwater, the chalk and sand geology of this area means there is a strong connection between groundwater and surface water^(xvi).

3.17 The Dour and the aquifers around Dover town are already considered to be overabstracted, so it is likely that abstraction for future development in the District (even in Dover) may draw upon the Stour. Although the Stour is currently considered to have water available, even without the additional water available under the conditions of the Agency's marsh feed licence, development anywhere in the District could have an adverse effect on European sites. This could potentially result from increased salinity of the marshes, increased sedimentation of the river channel due to reduced flows (the Stour features asymmetric flow, with low-tide outflow lagging behind high-tide inflow) and a reduction in the estuarine freshwater available to SPA birds for drinking and bathing^(xvii).

Water quality

3.18 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. In addition, diffuse pollution, partly from urban run-off has been identified during an Environment Agency Review of Consents process, as being a major factor in causing unfavourable condition of European sites.

3.19 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:

3.20 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.

3.21 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.

3.22 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.

3.23 The corollary of increased abstraction from the Stour is increased discharge of treated sewage effluent, which can result both in greater scour (as a result of greater flow volumes) and in high levels of macroalgal growth, which can smother the mudflats of value to SPA birds.

Coastal squeeze

3.24 Rising sea levels can be expected to cause intertidal habitats (principally saltmarsh and mudflats) to migrate landwards. However, in built-up areas, such landward retreat is often rendered impossible due the presence of the sea wall and other flood defences.

xvi Environment Agency. 2003. The Stour Catchment Abstraction Management Strategy

xvii Ravenscroft, N.O.M. and Beardalb, C.H. 2003. The importance of freshwater flows over estuarine mudflats for wintering waders and wildfowl. *Biological Conservation*, 113:1, 89-97

3.25 In addition, development frequently takes place immediately behind the sea wall, so that the flood defences cannot be moved landwards to accommodate managed retreat of threatened habitats. The net result of this is that the quantity of saltmarsh and mudflat adjacent to built-up areas will progressively decrease as sea levels rise. This process is known as 'coastal squeeze'. In areas where sediment availability is reduced, the 'squeeze' also includes an increasingly steep beach profile and foreshortening of the seaward zones.

3.26 Similarly, coastal erosion, particularly through increased frequency and intensity of extreme weather events predicted under climate change models¹⁵, has potential to exacerbate events such as cliff falls. This creates pressure on adjacent habitat such as cliff-top grasslands, and coastal squeeze may also affect such landscapes.

3.27 Along large stretches of the UK coastline, high and low watermarks on the beaches are moving landwards by more than a metre a year. Intertidal habitat loss is mainly occurring in the south and east of the country, particularly between the Humber and Severn. Northwest England, south Wales, the Solent in Hampshire, the southeast around the Thames estuary and large parts of East Anglia are also affected. The south coast has experienced the greatest steepening.

3.28 Defra's current national assessment is that the creation of an annual average of at least 100 ha of intertidal habitat associated with European sites in England that are subject to coastal squeeze, together with any more specifically identified measures to replace losses of terrestrial and supra-tidal habitats, is likely to be sufficient to protect the overall coherence of the Natura 2000 network. This assessment takes account of intertidal habitat loss from European sites in England that is caused by a combination of all flood risk management structures and sea level rise. The assessment will be kept under review taking account of the certainty of any adverse effects and monitoring of the actual impacts of plans and projects.^(xviii)

Sites scoped into the assessment

3.29 Five European sites lie wholly or partly within the Dover boundary:

- Dover to Kingsdown Cliffs SAC
- Lydden & Temple Ewell Downs SAC
- Sandwich Bay SAC
- Thanet Coast and Sandwich Bay SPA
- Thanet Coast and Sandwich Bay Ramsar

3.30 A further six European sites are considered to have links with development within Dover District's boundary via pathways as described above. These are:

- Blean Complex SAC
- Folkestone to Etchinghill Escarpment SAC
- Thanet Coast SAC
- Stodmarsh SAC
- Stodmarsh SPA
- Stodmarsh Ramsar site

xviii Defra. 2005. Coastal Squeeze - Implications for Flood Management. <http://www.defra.gov.uk/envirom/fcd/policy/csqueeze.pdf>

Preferred Options screened into the assessment

3.31 For the Preferred Options HRA, all draft policies were scoped for potential conflicts with European sites. The majority of draft policies could be 'scoped out' as there is no opportunity for any of these policies to result in adverse effects on European sites. The following policies were therefore taken forward for screening, since these are the preferred options that promote development within Dover district in order to achieve the aims set by the Regional Spatial Strategy or govern its distribution:

- CP1 (Provision for Jobs, Labour Supply and Homes);
- CP2 (Settlement Hierarchy);
- CP3 (Employment Land);
- CP4 (Distribution of Housing Allocations);
- CP6 (Infrastructure);
- CP8 (Dover Wellington Dock);
- CP9 (Mid-Town Area, Dover);
- CP10 (Connaught Barracks, Dover);
- CP11 (Whitfield, Dover);
- DM6 (New Employment Development, Rural); and
- DM29 (Local Shops).

3.32 It should be noted that only policies that had the potential for a negative impact on European sites were scoped for assessment. Those policies that might have a beneficial effect are referred to where appropriate in the following chapters, but were not actually assessed. This is due to the fact the HRA is only concerned with adverse effects.

Submission Stage

3.33 For the Submission Stage HRA, policies were re-screened in order to determine which required new appraisal. This exercise is set out in Appendix 2.



4 Dover to Kingsdown Cliffs SAC

Introduction

4.1 This long narrow site covers a large stretch of the south east Dover coast between the towns of Dover and Kingsdown. It support a full zonation of maritime cliff communities found on chalk substrates, reflecting different levels of exposure to wind and salt spray. The most exposed, lowest parts of the cliff face support rockcrevice communities with rock samphire *Crithmum maritimum*, rock sea-lavender *imonium binervosum* and thrift *Armeria maritima*, with the rare hoary stock *Matthiola incana* in places. On more sheltered slopes there is a community restricted to south-facing chalk cliffs characterised by wild cabbage *Brassica oleracea*. There are good paramaritime grassland transitions to chalk grassland. The endangered oxtongue broomrape *Orobanche artemisiae-campestris*, confined in the UK to unstable coastal chalk cliffs of southern England, has a stronghold on this site. The cliffs are internationally important as a stratigraphic reference site for chalk cliff exposures.

Features of European Interest

4.2 The site is designated as a Special Area of Conservation for its:

- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Calcareous grasslands (dry grasslands and scrublands on chalk or limestone including important orchid sites) are included as a qualifying feature, although they were not the main reason for designation of the site

Condition Assessment

4.3 During the most recent condition assessment process, 72% of Dover to Kingsdown Cliffs SSSI was judged to be in favourable condition. Most of the unfavourable areas were designated so because of inadequate or inappropriate grazing.

Key Environmental Conditions

4.4 The key environmental conditions that support the features of European interest are:

- Maintenance of grazing
- Low levels of trampling
- Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification
- Adequate undeveloped land behind the cliffs to enable managed retreat of the SAC in response to erosion and avoid coastal squeeze
- Absence of direct fertilisation and
- Well-drained soils.

Potential Effects of the Plan

4.5 Increased damage to sensitive plants from recreational trampling and nutrient enrichment from dog fouling was considered to be the key effect resulting from the scale of housing to be delivered at the Preferred Options stage of the Core Strategy. Note that changes to draft policies (including the levels of housing to be delivered at Whitfield) that have been made for the Submission Stage Core Strategy are covered in Chapter 11.

Urbanisation

4.6 Policy CP10 of the Preferred Options promotes the use of Connaught Barracks and Fort Burgoyne for employment, residential development, education and tourism. The distance between the area of proposed development and Dover to Kingsdown Cliffs SAC is less than 500m (inclusive of the detached bastion to the east of the A258) and thus falls within our zone for requiring consideration of the effects of increased urbanisation on the European site. On the one hand, up to 500 dwellings are proposed, which could lead to increased risk of waste/litter dumping or other vandalism on the protected site. On the other hand, the site does lie on the very edge of the 500m buffer and is physically separated from the site by two main roads (the A2 and the A258) – which are likely to form a barrier to casual vandalism, dumping etc. even with a settlement closer than is currently the case. As such, urbanisation effects are considered on balance to be unlikely to significantly increase on the SAC.

Recreational pressure

4.7 Of greater concern, given the requirement for low levels of trampling to maintain site integrity, would be the impact of increased recreation from substantial new development in the district, especially given the proposal to include holiday accommodation at Connaught Barracks/Fort Burgoyne. There is also a possibility of increased dog walking on the site with the associated risk of fertilisation through dog fouling.

4.8 Policy CP4 (Distribution of Housing Allocations) of the Preferred Options indicates the number of new houses in the District (10,000) that will need to be delivered under the Council's preferred Spatial Option 3. This should not be considered in isolation, but at the time of the Preferred Options Core Strategy were due to be set within the context of over 100,000 new dwellings in Kent to be delivered under the South East Plan, including 5,100 in Shepway, 7,200 in Canterbury, 6500 in Thanet and 22,700 in Ashford, the closest districts to Dover. Dover (including Whitfield) is allocated 5,700 new dwellings. This is likely to result in a significant cumulative increase in recreational pressure in the area, which could impact on Dover to Kingsdown Cliffs SAC via increased trampling and nutrient enrichment from dog fouling. If Option 4 were to be adopted this issue would be further exacerbated, as the extent of housing in Whitfield (situated less than 5km from the SAC) would increase from 2,000 to 6,000 homes.

4.9 The Connaught Barracks area does already include recreational space in the form of playing fields, which will assist in providing facilities for dog-walkers and dissuade them from excessive use of the protected site. Areas to the north and west of the proposed development site may be perceived to be more conveniently located for recreation than Dover to Kingsdown Cliffs SAC as they do not involve a need to cross major roads and steep terrain. Nonetheless, the site is used for recreation and as the population increases, so will the pressure.

Air quality

4.10 The SAC does lie adjacent to a major ferry port, but the ferries themselves dock further than 200m from the site and so are unlikely to contribute significantly to reduced local air quality. The port does attract large volumes of waiting vehicles (2.8 million cars and 2.4 million trucks per annum) that may contribute to reduced air quality. A 25-50m band on the western edge of Management Units 14 and 15 does lie between 150m and 200m from the centreline of the A2, which is within the zone in which nitrogen deposition and NOx emissions due to traffic on the road are likely to be above background levels. However, the total area within 200m measures approximately 1.3 ha and constitutes

0.7% of the total area of the SAC⁽ⁱ⁾. Accepting that 0.7% is nonetheless a significant proportion of the SAC, it must also be borne in mind that the SAC is on the outer margins of the 200m zone such that NOx levels and nitrogen deposition are likely to be only slightly above background. The risk of harm is further reduced by the fact that the A2 adjacent to the SAC is in cutting such that NOx emissions from traffic will be contained much closer to the roadside than they would be with a more typical 'at grade' road (i.e. one that was neither in cutting or raised on an embankment).

4.11 As such, while the total cumulative atmospheric nitrogen deposition within the SAC may well increase due to the increased capacity of the port, that element of the increase due to the increased housing and commercial floorspace to be delivered by the Core Strategy is likely to be small. Nonetheless, in order to provide mitigation for the Core Strategy's contribution to the 'in combination' effect, some additional air quality measures are recommended.

Coastal squeeze

4.12 Coastal squeeze is understood to be affecting the SAC as a result of a combination of erosion of habitat through recreational trampling and the natural process of cliff erosion by the sea. This provides added requirement for the need to adequately mitigate against recreational damage to the SAC. However, given the general drive to focus development within and on the margins of existing urban areas, it is unlikely that coastal squeeze will be an issue for this site as a direct consequence of development.

Avoidance and Mitigation

Recreational pressure

4.13 Spatial Option 4 would appear to be the least favourable option for this particular site, as it would result in substantially greater housing within 5km of the SAC due to a three-fold increase in housing at Whitfield.

4.14 The Core Strategy included a number of policies to protect the natural environment. In particular, Policy DM20 states: "development must avoid causing harm to biodiversity". Therefore, it will be important for the Council to determine that Policy CP10 does not conflict with DM20. This conflict might be avoided by preference for employment usage over holiday accommodation at Connaught Barracks, and by provision of landscape/conservation areas as outlined above. However, the current references are too generic to enable to firm judgment that significant adverse effects are unlikely, without the incorporation of further measures:

- Policy CP10 (Connaught Barracks, Dover) outlines a requirement for a locally equipped play area. Policy DM20 (Biodiversity and Geology) or Policy DM31 (Open Space and Outdoor Recreation Policies) should incorporate standards for provision of new semi-natural greenspace for new developments that ensure that Natural England criteria are met for new development across the district:
 - Provision of at least 2ha of accessible natural green space per 1,000 population
 - No person should live more than 300m from their nearest area of natural green space.
 - There should be at least one accessible 20ha site within 2km from home.
- Supporting paragraph 7.78 of the Core Strategy main text sets out what would be expected in a Masterplan for the Connaught Barracks site, and states that plans should illustrate proposed areas to be set aside for landscaping and nature conservation. A statement of standards and intent to avoid negative impacts Dover to Kingsdown SAC would strengthen this text.
- Any open space created to fulfil the above standards will need to serve a similar recreational function to the European sites from which they are intended to draw recreational users (i.e. primarily dog walking and the appreciation of nature). The policy should also include a note that any new open space would need to be provided in advance of the new development being occupied.

i The Nature on the Map website indicates that the total area of the SAC is 184.53ha

- The overarching policy should also incorporate text to state that where it is considered impractical or inappropriate to provide such open space with new developments, or for all developments of less than 10 dwellings/0.4 ha, or where the open space that would be provided is likely to be of an inappropriate character to deflect users, the Council should require a financial contribution from the developer as an alternative means of provision, which can be used to fund ongoing recreational management (i.e. fencing and signage⁽ⁱⁱ⁾) of the SAC and/or the creation of alternative natural greenspace by the Council.

4.15 Provided that the existing open space (other than the SAC itself) meets these criteria, new open space may not need to be allocated. It is considered that if the above measures can all be incorporated, the Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Dover to Kingsdown Cliffs SAC.

4.16 Air Quality

4.17 Current levels of understanding of air quality effects on semi-natural habitats or usage of particular major roads by residents of particular districts are not adequate to allow a rigorous assessment of the potential for adverse impacts on the integrity of key European sites.

4.18 Port development is not within the control of the Council in that it is determined by the Harbour Board through the Harbour Revision Order process rather than by the Council through the planning system. However, as an approach to relieving pressure on Dover Eastern Docks, the Council express their support for development of a new Western port facility. The Council do state their expectations for the port expansion in the Core Strategy in that: "The Council would want to ensure that the opportunity to develop a second terminal at the Western Docks is used to improve the existing local traffic and environmental conditions" and they state that: "The District Council supports the development of a freight and passenger ferry terminal at Dover Western Docks provided... pollution issues (air quality, noise and light) are fully addressed."

4.19 Dover Eastern Docks is currently operating at close to capacity, and with mechanisms such as Operation Stack to reduce traffic at the Port itself, it is unlikely that air pollution as a result of waiting vehicles at the port will become significantly worse than they are presently. No action taken within the Core Strategy is likely to lead to a significant increase in air pollution from port traffic on Dover to Kingsdown Cliffs SAC.

4.20 However, even if development under the Core Strategy Preferred Options would (in the absence of mitigation) contribute to a significant deterioration in local air quality at the SAC as a result of increased traffic on the local roads, there are several measures already built into the Core Strategy that would seek to mitigate such effects by reducing the scale of the impact as far as possible.

4.21 In particular, the Preferred Options Core Strategy includes policy DM15 (Location of Development and Travel Demand) that aims to ensure that developments that would generate high levels of travel will only be permitted where locations will be well served by a range of transport options.

4.22 While the precautionary principle prevents us from ruling out any adverse effect, the necessary mitigation measures to be deployed need to be commensurate with the probable scale. Due to this uncertainty, some further measures are necessary in order to strengthen this position and enable the Council to claim that significant adverse effects of the Core Strategy are unlikely:

- Policy DM15 should be strengthened to make specific reference to the need to alleviate pressure on the A2 in the vicinity of Dover to Kingsdown Cliffs SAC.
- Any development that could give rise to a material increase in traffic flows on the A2 within 200m of Dover to Kingsdown Cliffs SAC should be subject to appropriate assessment, including consideration of their air pollution impacts on the European site as part of the planning application.

ii Precise details of measures to be implemented and the actual scale of any contribution would need to be agreed with Natural England

- The Council should seek an improvement in air quality in the district so that there is a significant reduction in the number of days of medium and high air pollution by 2026;
- An application for commercial premises or a housing development of more than 10 units can be required to demonstrate that alternatives to road transport are being utilised wherever practical and will minimise the distance necessary, including the number and length of vehicle journeys;
- Where a new development will have a significant impact upon the trunk road network, it will require a transportation assessment including a travel plan. In cases where there is no extra network or infrastructure capacity, mitigation will be expected to support transportation improvements directly linked to the new development.

4.23 All of these measures could be built into an enhanced and strengthened DM15. Policy DM21 of the Preferred Options Core Strategy advocates the need to establish pollution risk and methods to control this. The measures outlined above should be taken into consideration in light of this policy.

4.24 It is considered that if the above measures can all be incorporated, the Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Dover to Kingsdown Cliffs SAC.



5 Lydden and Temple Ewell Downs SAC

Introduction

5.1 This SAC lies in Dover District within 500m of the towns of Temple Ewell and Whitfield. This site includes some of the richest chalk grassland in Kent, with outstanding assemblages of plants and invertebrates. A number of rarities include the early spider orchid *Ophrys sphegodes*, burnt orchid *Orchis ustulata*, musk orchid *Herminium monorchis*, and slender bedstraw *Galium pumilum*. An outstanding invertebrate fauna includes typical downland butterflies such as the marbled white *Melanargia galathea*, adonis blue *Lysandra bellargus*, chalkhill blue *L. coridon*, and the rare silver-spotted skipper *Hesperia comma*. Two rare moths, the dew *Setina irrorella* and the straw belle *Aspitates gilvaria* are present as is the rare carthusian snail *Monacha cartusiana*.

Features of European Interest

5.2 The site is designated as a Special Area of Conservation for its:

- Dry grasslands and scrublands on chalk or limestone, including important orchid sites.

Condition Assessment

5.3 During the most recent condition assessment process, 61% of Lydden and Temple Ewell Downs SSSI was judged to be in favourable condition. The remainder was recovering from inadequate grazing regimes. Management Unit 5 of the constituent SSSI is the only part of the SAC that lies within 200 m of the A2. The unit was judged as being in favourable condition during the most recent condition assessment. From examination of the UK Air Pollution System (www.apis.ac.uk) however, it can be seen that the SAC is currently subject to poor air quality.

Table 2. Critical nitrogen loads, rates of nitrogen deposition, NOx concentrations⁽ⁱ⁾ and sulphur dioxide concentrations for Lydden and Temple Ewell Downs SAC. Red shading indicates exceedance of thresholds.

Site	Grid reference	Most nitrogen sensitive habitat	Minimum ⁽ⁱⁱ⁾ critical loads (Kg N/ha/yr)	Nitrogen deposition ⁽ⁱⁱⁱ⁾ (Kg N/ha/yr)	Actual NOx concentration ($\mu\text{g m}^{-3}$)	Actual SO ₂ concentration ($\mu\text{g m}^{-3}$)
Lydden and Temple Ewell Downs SAC	TR287447	Calcareous grassland	10	19.3	20.8	6.2

Key Environmental Conditions

5.4 The key environmental conditions that support the features of European interest are:

- Maintenance of grazing;
- Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification;
- Absence of direct fertilisation; and
- Well-drained soils.

i Calculated as NO₂

iii To a resolution of 5 km

ii APIS provides a critical load range - on a precautionary basis, this assessment uses the lowest figure in that range

Potential Effects of the Plan

5.5 It was considered that adverse effects on the SAC could be expected from recreational impacts, urbanisation effects and air quality issues resulting from the scale of housing to be delivered at the Preferred Options stage of the Core Strategy.

Note that changes to draft policies (including the levels of housing to be delivered at Whitfield) that have been made for the Submission Stage Core Strategy are covered in Chapter 11.

Recreational pressure

5.6 Policy CP4 of the Preferred Options indicates the number of new houses in the District (10,000) that will need to be delivered under the Council's preferred Spatial Option 3. Dover (including Whitfield) is allocated 5,700 new dwellings. This must be considered in combination with the South East Plan's requirement for over 100,000 new dwellings in Kent, including 5,100 in Shepway, 7,200 in Canterbury, 6,500 in Thanet and 22,700 in Ashford, the closest districts to Dover. Policy CP11 of the Preferred Options specifically considers the residential development of Whitfield, the nearest allocated site to the SAC. The preferred option here involves the building of 1790 new homes to the east of the currently developed area. The increased number of residents is likely to lead to a cumulative increase in recreational pressure on the protected site, which is sensitive to trampling and to direct fertilisation such as would result from dog fouling.

5.7 If Option 4 were to be adopted this issue would be further exacerbated, because up to 4000 further homes would be required at Whitfield. Options 1 and 2 also incorporate significant levels of housing development within Dover, which will lead to increased recreational use of sites including Lydden and Temple Ewell Downs SAC.

Urbanisation

5.8 This scale of development that would be within 200m of the Natura 2000 site would potentially have serious negative impact on Lydden and Temple Ewell Downs SAC through urbanisation (anti-social behaviour such as fire-raising, vandalism). This could be exacerbated if combined with recreation (trampling and nutrient enrichment), and air pollution (traffic movements).

Air quality

5.9 The Site Allocation Document Policy 13 seeks to safeguard land for the dualling of the A2 between the Duke of York roundabout and Lydden Hill, a stretch of trunk road that passes within 200m of the protected site. The site already suffers from poor air quality (namely SO₂, NO₂ and NO_x), and increased traffic movement on the A2 as a result of development across Dover, plus that generated by the 100,000 homes to be delivered elsewhere in Kent under the South East Plan (given the role of the A2 as a major strategic route for the county) will lead to even greater levels of nitrogen deposition. The indirect effect of this could be a decline in quantity and diversity of specialised flora and fauna present. Employment and housing development within Dover will almost certainly lead to increased traffic on the A2. Part of residential development at Whitfield (Policy CP11 of the Preferred Options) would be a new link between the A2 and A256. Dependent on location, this could either alleviate or increase air pollution at the site.

Future development plans at Whitfield

5.10 Although not the favoured approach at time of Preferred Options, there was a realistic prospect (Option 4 of the Council's original preferred Spatial Options) of up to 4,000 new homes being developed to the west of Whitfield following early review of the adopted Core Strategy. Based on current information it would be advisable to not to promote development on such a scale within such close proximity to the European site until proposals are more advanced and more detailed ecological assessment of likely impacts is possible at the time of review. This further investigation would cover

transport, landscape, sustainable urban extension, noise, air quality and biodiversity issues. The Council have developed a traffic model that will enable road transport effects to be forecast, and from this, air quality effects can be modelled. This issue will therefore be re-explored when this document is refreshed at the Submission Stage. This issue has therefore been re-explored as part of the refreshment of this document for the Submission Stage (see Chapter 11).

Avoidance and Mitigation

Recreational pressure

5.11 Spatial Option 4 of the Council's original preferred Spatial Options would appear to be the least favourable option for this particular site, as it would result in substantially greater housing within 1km of the SAC due to a three-fold increase in housing at Whitfield.

5.12 The Preferred Options Core Strategy already includes a number of policies to protect the natural environment. In particular, Policy DM20 states: "development must avoid causing harm to biodiversity". However, the current references are too generic to enable to firm judgment that significant adverse effects are unlikely, without the incorporation of further definite measures:

- Policy DM20 (Biodiversity and Geology) or Policy DM31 (Open Space and Outdoor Recreation Policies) should incorporate standards for provision of new semi-natural greenspace for new developments that ensure that Natural England criteria are met for new development across the district:
 - Provision of at least 2ha of accessible natural green space per 1,000 population
 - No person should live more than 300m from their nearest area of natural green space.
 - There should be at least one accessible 20ha site within 2km from home.
 - Any open space created to fulfil these standards will need to serve a similar recreational function to the European sites from which they are intended to draw recreational users (i.e. primarily dog walking and the appreciation of nature). The policy should also include a note that any new open space would need to be provided in advance of the new development being occupied.
 - The overarching policy should also incorporate text to state that where it is considered impractical or inappropriate to provide such open space with new developments, or for all developments of less than 10 dwellings/0.4 ha, or where the open space that would be provided is likely to be of an inappropriate character to deflect users, the Council should require a financial contribution from the developer as an alternative means of provision, which can be used to fund ongoing recreational management (i.e. fencing and signage) of the SAC and/or the creation of alternative natural greenspace by the Council.

5.13 Provided that the existing open space (other than the SAC itself) meets these criteria, new open space may not need to be allocated. It is considered that if the above measures can all be incorporated, the Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Lydden & Temple Ewell Downs SAC.

Urbanisation

5.14 Many of the measures to offset recreational pressure (i.e. the provision of alternative recreational facilities and greenspace) may help to reduce the general urbanisation pressure on the SAC. However, the benefits of alternative open space will be limited since with urbanisation issues physical proximity is the issue. From a purely ecological point of view, it would therefore be preferable if development at Whitfield did not encroach south of the current line of the A2.

5.15 Given that the main urban issues on this site would be littering and fires^(iv), a further method of controlling urbanisation would be to include a policy that enables developer contributions to be obtained to enable the Council to contribute to the management of urban impacts on Lydden and Temple Ewell Downs SAC. Such a policy would enable the Council to contribute to the installation of fencing, wardens and/or increased surveillance to control the 'urbanisation' impacts of the increase in households within close proximity to the site as a result of the Whitfield development.

Air quality

5.16 Current levels of understanding of air quality effects on semi-natural habitats or usage of particular major roads by residents of particular districts are not adequate to allow a rigorous assessment of the potential for adverse impacts on the integrity of key European sites.

5.17 However, even if development under the Core Strategy would (in the absence of mitigation) contribute to a significant deterioration in local air quality at the SAC as a result of increased traffic on the local roads, there are several measures already built into the Core Strategy that would seek to mitigate such effects by reducing the scale of the impact as far as possible.

5.18 In particular, the Preferred Options Core Strategy includes policy DM15 (Location of Development and Travel Demand) that aims to ensure that developments that would generate high levels of travel (e.g. Whitfield) will only be permitted where locations will be well served by a range of transport options.

5.19 Moreover, there is scope for atmospheric deposition on Lydden & Temple Ewell Downs to actually be reduced as a result of development at Whitfield, if the rerouting of the A2 to the north of the town (as being considered by the Council) were to proceed.

5.20 The Core Strategy discusses the need for a new road link between the A2 and A256 if this option were to be chosen. Development on this scale at Whitfield requires great care in location of road diversions in order to avoid deterioration in air quality on the SAC, which would be likely to result in a loss of biodiversity. Therefore a scheme to alleviate levels of traffic using the A2 past the site would be beneficial. The effectiveness of such a link road would be dependent on it branching from the A2 to the west of Lydden to Temple Ewell Downs SAC.

5.21 Due to this uncertainty, some further measures are necessary in order to strengthen this position and enable the Council to claim that significant adverse effects of the Core Strategy are unlikely:

- Policy DM15 should be strengthened to make specific reference to the need to alleviate pressure on the A2 in the vicinity of Lydden and Temple Ewell Downs SAC.
- Any development that could give rise to a material increase in traffic flows on the A2 within 200m of Lydden and Temple Ewell Downs SAC should be subject to appropriate assessment, including consideration of their air pollution impacts on the European site as part of the planning application.
- The Council should seek an improvement in air quality in the district so that there is a significant reduction in the number of days of medium and high air pollution by 2026;
- An application for commercial premises or a housing development of more than 10 units can be required to demonstrate that alternatives to road transport are being utilised wherever practical and will minimise the distance necessary, including the number and length of vehicle journeys;
- Where a new development will have a significant impact upon the trunk road network, it will require a transportation assessment including a travel plan. In cases where there is no extra network or infrastructure capacity, mitigation will be expected to support transportation improvements directly linked to the new development.

5.22 All of these measures could be built into an enhanced and strengthened DM15. Policy DM21 of the Core Strategy advocates the need to establish pollution risk and methods to control this. The measures outlined above should be taken into consideration in light of this policy.

iv Since it is not a location for vulnerable ground-nesting birds, cats are not an issue

5.23 It is considered that if the above measures can all be incorporated, the Preferred Options Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Lydden and Temple Ewell Downs SAC.

6 Thanet Coast and Sandwich Bay

Introduction

6.1 The East Kent coast consists of two Special Areas of Conservation (Thanet Coast SAC and Sandwich Bay SAC), a Special Protection Area (Thanet Coast and Sandwich Bay SPA) and a Ramsar site of the same name. Thanet Coast SAC lies immediately north of the District, with the northern boundary of the District coast being concurrent with the southern boundary of the SAC. Sandwich Bay SAC occupies much of the Dover District coastline from the north-east tip (north of Great Stonar) down to Deal. The Special Protection Area and Ramsar site cover the majority of both Special Areas of Conservation.

6.2 The designated coastline consists of a long stretch of rocky shore, adjoining areas of estuary, sand dune, maritime grassland, saltmarsh and grazing marsh. The site holds important numbers of Turnstone *Arenaria interpres*, and is also used by large numbers of other migratory birds as they make landfall in Britain in spring or depart for continental Europe in autumn – however these other bird species are not technically covered by the SPA designation.

Features of European Interest

Table 3. The SAC and SPA interest features for Thanet Coast and Sandwich Bay

Site	SAC / SPA Interest Features
Thanet Coast & Sandwich Bay SPA	Populations of European importance of the following migratory species: <ul style="list-style-type: none"> • Turnstone • Golden plover • Little Tern
Thanet Coast SAC	<ul style="list-style-type: none"> • Reefs • Sea caves
Sandwich Bay SAC	<ul style="list-style-type: none"> • Shifting dunes - The embryonic shifting dunes at Sandwich Bay are representative of this habitat type in southeast England. The seaward edge of the north of this site displays a good sequence of embryonic shifting dune communities and there is a clear zonation within the dune habitat, with strandline species on the seaward edge and sand-binding grasses inland. Lyme-grass <i>Leymus arenarius</i> is extremely sparse and sand couch <i>Elytrigia juncea</i> is the dominant sand-binding species. • Shifting dunes along the shoreline with marram - Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (marram) occurs along the seaward edge of the northern half of this extensive dune system. It is representative of shifting dune vegetation in southeast England, a region where the habitat type is very restricted in its distribution. Although the area of this habitat type is small by comparison with other listed sites, the shifting dune vegetation contains a good range of characteristic foredune species including sea bindweed <i>Calystegia</i>

Site	SAC / SPA Interest Features
	<p><i>soldanella</i>, sea spurge <i>Euphorbia paralias</i> and sea-holly <i>Eryngium maritimum</i>.</p> <ul style="list-style-type: none"> • Dune grassland – Sandwich Bay is a largely inactive dune system with a particularly extensive representation of fixed dune grassland, the only large area of this habitat in the extreme south-east of England. The vegetation is extremely species-rich and the site has been selected because it includes a number of rare and scarce species, such as fragrant evening-primrose <i>Oenothera stricta</i>, bedstraw broomrape <i>Orobancha caryophyllacea</i> and sand catchfly <i>Silene conica</i>, as well as the UK's largest population of lizard orchid <i>Himantoglossum hircinum</i>. • Dunes with creeping willow - The small area of dunes with <i>Salix repens ssp. argentea</i> (creeping willow) found at Sandwich Bay is of interest as it is the only example found in the dry south-east of England and is representative of this habitat type in a near-continental climate. • Humid dune slacks

Features of International Interest: Ramsar criteria

Table 4: Ramsar site criteria

Site	Ramsar criteria 2, 6
Thanet Coast & Sandwich Bay	<p>Supports 15 British Red Data Book wetland invertebrates.</p> <p>Species occurring at levels of international importance:</p> <ul style="list-style-type: none"> • Turnstone • Golden plover • Little tern

Condition Assessment

6.3 During the most recent condition assessment, Natural England judged 75% of the principal constituent SSSI of the Thanet Coast and Sandwich Bay (Sandwich Bay to Hacklinge Marshes SSSI) to be in favourable condition. Parts of the site were unfavourable, largely through issues related to inappropriate grazing, choking of waterways and some levels of eutrophication.

Key Environmental Conditions

6.4 The following key environmental conditions were identified for all the sites:

- Sufficient space between the site and development to allow for managed retreat of intertidal habitats and avoid coastal squeeze
- No dredging or land-claim of coastal habitats

- Unpolluted water
- Absence of nutrient enrichment
- Absence of non-native species
- Maintenance of freshwater inputs
- Balance of saline and non-saline conditions
- Minimal disturbance
- Minimal activities that alter sediment characteristics

Potential Effects on the Plan

6.5 It was considered that adverse effects on the SAC/SPA could be expected from recreational impacts, water quality/resources and coastal squeeze issues resulting from the scale of housing to be delivered at the Preferred Options stage of the Core Strategy. Note that changes to draft policies (including the levels of housing to be delivered at Whitfield) that have been made for the Submission Stage Core Strategy are covered in Chapter 11.

Recreational pressure

6.6 Policy CP4 of the Preferred Options indicates the number of new houses in the District (10000) that will need to be delivered under the Council's Preferred Spatial Option 3. Deal, Sandwich and rural areas are allocated 4300 new dwellings. Due to the large distances that people will travel to visit coastal sites for the day (typically 25km according to the most recent England Day Visits survey), most of Dover District will fall within the catchment of Thanet Bay SAC, Sandwich Bay SAC, and Thanet and Sandwich Bay SPA/Ramsar. This will result in a significant increase in recreational pressure in the area, and could impact on via dune erosion, physical damage to marine habitat from water sports (e.g. power boats), nutrient enrichment through dog fouling and bird disturbance (walkers, dogs, horses, water sports).

6.7 There are also proposed in the RSS for the South East over 100,000 new dwellings in Kent, including 5,100 in Shepway, 7,200 in Canterbury, 6,500 in Thanet and 22,700 in Ashford, the closest districts to Dover, all of which could contribute extra recreational visits to the sites such that any overall effect is likely to be cumulative and successful mitigation may therefore require a more strategic multi-authority approach. Moreover, timing and location of development of the site should be checked to ensure no in combination effect with construction of the East Kent Access Phase 2 road to the north. However, the SSSI unit closest to the proposed developments (Unit 46) is an isolated block of 13.5 hectares of lowland grassland. As such, its capacity to absorb increased visitor numbers is limited.

Urbanisation

6.8 There is a possibility of 200 and 290 new houses respectively at locations within 500m of Thanet Coast and Sandwich Bay Ramsar site. This increases the risk of urbanisation effects such as fly-tipping, introduction of alien species, and cat predation on the protected site.

Water quality

6.9 Development within north Dover and surrounding authorities (i.e. Thanet), will also contribute to increased wastewater discharges into the Stour, which ultimately drains to the European sites. This is likely to result in an increase in nutrients leading to a decrease in quality, given that eutrophication is already noted as an issue on the sites.

6.10 Avoiding an adverse effect is largely in the hands of the water companies (through their investment in future sewage treatment infrastructure) and Environment Agency (through their role in consenting effluent discharges).

6.11 Policies DM21 (Pollution) and DM22 (Groundwater Source Protection Zones) of the Preferred Options constrain development in relation to water quality issues. This does not deal specifically with the significant issue of nutrient enrichment due to effluent discharges. However, the most important role that can be played by the LDF with regard to this issue is for a policy to be drafted that ensures that development within the district keeps pace with the provision of necessary sewage treatment infrastructure, in order to avoid placing excessive demands upon an overburdened sewage treatment system. This is already clearly set out in Policy CP6 (Infrastructure) of the Preferred Options.

Water resources

6.12 Development beyond the immediate vicinity of Dover town will require a supply of water from the catchment of the River Stour, as the River Dour and aquifers around Dover are currently considered to be over-abstracted, while the Stour has water available. Thanet Coast and Sandwich Bay are part of the Stour catchment. Water diversion for domestic and industrial use has led to adverse effects on the Ramsar site, affecting freshwater inputs, sedimentation patterns and the balance between saline and fresh water. The Preferred Options development of 1600 new homes at Deal, 500 at Sandwich and a proportion of 2200 in relevant rural locations will increase demands on water supply from the Stour catchment, which also supplies water to the districts of Thanet, Canterbury and Ashford. The River Stour features asymmetric flow with low-tide outflows lagging significantly behind high-tide inflow. Therefore increased abstraction could have particular impact on low-tide outflow if flow rate is further reduced.

Coastal squeeze

6.13 The habitats and species protected by the SAC, SPA and Ramsar sites are likely to be subject to inundation as a result of rising sea levels. Therefore it is important that aspects of the LDF do not contribute to coastal squeeze. The proposals for development within habitat that could accommodate managed retreat are small in character or already within developed areas and so are unlikely to contribute significantly to coastal squeeze.

Avoidance and Mitigation

Recreational pressure

6.14 The large recreational catchment that might be expected of a coastal site such as the Thanet Coast and Sandwich Bay, coupled with the Preferred Options intention to develop 10,000 homes across Dover District (particularly including development of almost 500 houses within 500m of the Thanet Coast and Sandwich Bay Ramsar site) increases the likelihood of recreational pressure on the site.

6.15 The Preferred Options Core Strategy already includes a number of policies to protect the natural environment. In particular, Policy DM20 states: “development must avoid causing harm to biodiversity”.

6.16 However, for clarity, and in order to make a firm judgment that significant adverse effects are unlikely, the following additional measures should be included:

- Policy DM20 (Biodiversity and Geology) or Policy DM31 (Open Space and Outdoor Recreation Policies) should incorporate standards for provision of new semi-natural greenspace for new developments that ensure that Natural England criteria are met for new development across the district:
- ● Provision of at least 2ha of accessible natural green space per 1,000 population

- No person should live more than 300m from their nearest area of natural green space.
- There should be at least one accessible 20ha site within 2km from home.
- Crucially, a proportion of this open space will need to serve a similar recreational function to Thanet Coast & Sandwich Bay SPA/SAC in order to attract people who might otherwise use the site. While this will be possible to an extent, many of the recreational uses are inherently water based and no alternative sites can be provided. The Council will therefore also need engage with other Kent authorities and Natural England to input into managing recreation and monitoring disturbance within and around Thanet Coast and Sandwich Bay. Dover District's contribution should be commensurate with its relative contribution to the increased populations of Dover, Shepway, Canterbury, Thanet and Ashford, since the district can only be considered responsible for mitigating its own likely contribution to any "in combination" effect.

6.17 Provided that the existing open space (other than the SAC/SPA itself) meets these criteria, new open space may not need to be allocated. It is considered that if the above measures can all be incorporated, the Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Thanet Coast and Sandwich Bay SAC/SPA.

- A Developer Contributions policy would enable a levy to be placed on developers that could enable Dover Council to contribute to the partnership. A policy within the Core Strategy (ideally DM20) should allow for this option. However, whatever method is decided upon for funding local authority contributions must be agreed across the whole east Kent area (in order to avoid putting some authorities at a disadvantage) and this report is therefore not the place to go into further details.
- Kent County Council is proposing highways improvement (East Kent Access Phase 2) that will involve work adjacent to Thanet Coast SAC, Sandwich Bay SAC, and the SPA and Ramsar sites. Although not within the remit of the Dover district LDF, it is worth noting that appropriate assessment of the South East Plan recommended full appropriate assessment of this scheme due to potential disturbance of birds using the sites. In view of this, it will be important to ensure that Dover district policies leading to development near to and/or increased recreational use of these sites (most obviously, CP4) do not contribute to any 'in combination' effect during the East Kent Access Phase 2 construction.

Water quality

6.18 The only additional measure to be proposed is that the Council should establish in preparing the submission stage Core Strategy that there is already sufficient sewage treatment infrastructure capacity to meet the growth that is proposed for the short-term.

Water resources

6.19 To improve development efficiency in relation to water, policy DM3 sets out expectations for new development to meet standards in Eco Homes certification system, or alternative, including the need to incorporate water efficiency measures. We would recommend that consideration is given to a policy that requires all new developments to meet the "Code for Sustainable Homes". The Code for Sustainable Homes has benefits because it has minimum requirements of water efficiency for every different rating. This compares favourably to BREEAM/EcoHomes for which it is not necessary to incorporate water efficiency measures to achieve a rating. In terms of standards that should be achieved, we would suggest a staged approach to be carried out over the next ten years. This would equate to a requirement for all developments to achieve at least a 3 star rating up to 2013, at least a 4 star rating up to 2016 and a 6 star rating after this date.

6.20 The Stour is currently considered to have water available, but it is essential that Dover district is able to demonstrate that it is doing as much as possible to husband water resources. A policy should be incorporated that ensures that development will be phased in order to keep pace with the development of new water resources i.e. that development cannot occur until sufficient water supply is available. Policy CP6 requires infrastructure to keep pace with development plans, and this would be therefore be an ideal place to incorporate such a policy. It is also essential that the Council consult with the water company to ascertain that there are sufficient resources to meet development proposed for immediate or short-term delivery.

6.21 The Stour catchment also supplies Canterbury, Ashford and Thanet, creating further resource demands, and so consultation with water companies and the Environment Agency as early as possible in development planning is recommended.

Urbanisation

6.22 The development of almost 500 houses within 500m of the Thanet Coast and Sandwich Bay Ramsar site increases the likelihood of urbanisation pressures on the site.

6.23 An additional method of controlling urbanisation would be for the Council to contribute to the management of urban impacts on Thanet Coast and Sandwich Bay. This could be achieved by a development contributions policy as described in the recreation section of this Chapter. Such a policy would enable the Council to contribute to the installation of fencing, wardens and/or increased surveillance to control the 'urbanisation' impacts of the increase in households within close proximity to the site as a result of the nearby new development. Where residential properties adjoin or provide a clear means of access to a protected site, fencing or other landscaping to prevent pet incursions is an option that should be considered. This will also help screen wildlife from human disturbance.

6.24 It is considered that if the above measures can all be incorporated, the Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Thanet Coast and Sandwich Bay SAC/SPA/Ramsar site.

7 Blean Complex SAC

Introduction

7.1 This is a complex of woodlands of which East Blean Woods SSSI lies within 5.5km of Dover district, but more than 15km from the nearest urban area (Sandwich). The SAC is one of the best remaining examples of primary deciduous woodland in the wider Blean Woods complex north of Canterbury. The wood comprises mixed coppice with oak standards, sweet chestnut coppice and also a small plantation of Scots pine. The diverse ground flora includes some species indicative of a long history of woodland cover. Also of interest is the insect fauna, particularly the moths and butterflies.

Features of European Interest

7.2 The site is designated as a SAC for its oak-hornbeam forests. Hornbeam *Carpinus betulus* coppice occurs interspersed with pedunculate oak *Quercus robur* stands and introduced sweet chestnut *Castanea sativa*. Great wood-rush *Luzula sylvatica* is locally dominant in the woodland, and the characteristic greater stitchwort *Stellaria holostea* is found in more open patches. The stands have traditionally been managed as coppice, and are one of the British strongholds for the heath fritillary butterfly *Mellicta athalea*.

Condition Assessment

7.3 In the most recent condition assessment, 88.2% of the East Blean Woods SSSI was judged to be in favourable condition. The remainder was unfavourable due to issues relating to woodland management.

Key Environmental Conditions

7.4 The key environmental conditions that support the features of European interest are:

- Low levels of trampling
- Maintenance of coppice management
- Minimal air pollution
- Absence of direct fertilisation and
- Well-drained soil

Potential Effects of the Plan

7.5 Development in the Dover district may result in increased recreational pressure but on this particular site recreational use is easily manageable and is not considered to put the survival of the qualifying features at risk. There are no major roads within 200m of the site, so increasing nitrogen deposition from deteriorating local air quality is less likely to be significant. Therefore there is no feasible means by which the Core Strategy could contribute directly to any impact on the key designated features for this site other than 'in combination' with other plans.



8 Folkestone to Etchinghill Escarpment SAC

Introduction

8.1 This long narrow site lies on a steep escarpment in a heavily urbanised environment being both situated on the outskirts of Folkestone and bisected by the A20, a major traffic route in southeast Kent. It is approximately 800 m to the west of Dover District and approximately 1 km from the nearest Dover settlement, the village of Capel-le-Ferne. It is approximately 7km at its closest from the nearest significant urban area in the district (Dover itself).

8.2 The site is one of the largest remaining areas of unimproved chalk downland in Kent. Three nationally rare plants listed on Schedule 8 of the Wildlife and Countryside Act 1981 and specially protected by law, are present; late spider orchid *Ophrys fuciflora*, early spider orchid *Ophrys sphegodes* and bedstraw broomrape *Orobancha caryophyllacea*. The site supports a diverse insect fauna including a number of nationally rare flies, moths and butterflies. Of special interest is the annulet moth *Gnophos obscuratus* which is noted for its different genetic colour forms. This is the only known locality in Britain for the form *fasciata*. In addition the nationally rare straw belle moth *Aspitates gilvaria* is found here. Among the butterflies the locally uncommon adonis blue *Lysandra bellargus* and small blue *Cupido minimus* are two species with a restricted distribution.

Features of European Interest

8.3 The site is designated as a Special Area of Conservation for its dry grasslands and scrublands on chalk or limestone, including important orchid sites.

Condition Assessment

8.4 During the most recent condition assessment process, 73% of Folkestone to Etchinghill Escarpment SSSI was judged to be in favourable condition. Only 3% was unfavourable and declining due to undergrazing. However, from examination of the UK Air Pollution System (www.apis.ac.uk) it can be seen that the SAC is currently suffering from poor air quality.

Table 5. Critical loads, rates of nitrogen deposition, NO_x concentrations and sulphur dioxide concentrations for Folkestone to Etchinghill Escarpment SAC. Red shading indicates exceedance of thresholds.

Site	Grid reference	Most nitrogen sensitive habitat	Minimum critical loads (Kg N/ha/yr)	Nitrogen deposition (Kg N/ha/yr)	Actual NO _x concentration (µgm ⁻³)	Actual SO ₂ concentration (µgm ⁻³)
Folkestone to Etchinghill Escarpment SAC	TR235378	Calcareous grassland	10	19.3	23.6	8.6

Key Environmental Conditions

8.5 The key environmental conditions that support the features of European interest are:

- Maintenance of grazing;
- Low levels of trampling;

- Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification;
- Absence of direct fertilisation; and
- Well-drained soils.

Potential Effects of the Plan

8.6 It was considered that adverse effects on the SAC could be expected from recreational impacts and air quality issues resulting from the scale of housing to be delivered at the Preferred Options stage of the Core Strategy. Note that changes to draft policies (including the levels of housing to be delivered at Whitfield) that have been made for the Submission Stage Core Strategy are covered in Chapter 11.

Recreational pressure

8.7 Policy CP4 of the Preferred Options indicates the number of new houses in the District (10000) that will need to be delivered under the Council's Preferred Spatial Option 3. Dover (including Whitfield) is allocated 5700 new dwellings. Given the typical distances that people will travel to utilise a countryside site for the day (17km according to the most recent England Day Visits Survey), new developments throughout south Dover may contribute cumulatively to this pressure. Moreover, development in Dover must be considered within the context of South East RSS plans for over 100000 new dwellings in Kent, including 5100 in Shepway, 7200 in Canterbury, 6500 in Thanet and 22700 in Ashford, the closest districts to Dover.

8.8 All of this new development is likely to result in a significant increase in recreational pressure in the area, and could impact on Folkestone to Etchinghill Escarpment SAC via increased trampling and nutrient enrichment through dog fouling. If Option 4 were to be adopted this issue would be exacerbated. Options 1 and 2 also incorporate significant levels of housing development within Dover.

Air quality

8.9 The A20 lies within 200m of the site, so increasing nitrogen deposition from deteriorating local air quality as a result of increased traffic in Dover (when considered cumulatively with the surrounding authorities and the projected expansion of Dover Port) is likely to occur.

Avoidance and Mitigation

Recreational pressure

8.10 The Core Strategy already includes a number of policies to protect the natural environment. In particular, Policy DM20 of the Preferred Options states: "development must avoid causing harm to biodiversity". However, the current references are too generic to enable to firm judgment that significant adverse effects are unlikely, without the incorporation of further definite measures:

- Policy DM20 (Biodiversity and Geology) or Policy DM31 (Open Space and Outdoor Recreation Policies) should incorporate standards for provision of new semi-natural greenspace for new developments that ensure that Natural England criteria are met for new development across the district:
 - Provision of at least 2ha of accessible natural green space per 1,000 population
 - No person should live more than 300m from their nearest area of natural green space.
 - There should be at least one accessible 20ha site within 2km from home.

- Any open space created to fulfil these standards will need to serve a similar recreational function to the European sites from which they are intended to draw recreational users (i.e. primarily dog walking and the appreciation of nature). The policy should also include a note that any new open space would need to be provided in advance of the new development being occupied.
- The overarching policy should also incorporate text to state that where it is considered impractical or inappropriate to provide such open space with new developments, or for all developments of less than 10 dwellings/0.4 ha, or where the open space that would be provided is likely to be of an inappropriate character to deflect users, the Council should require a financial contribution from the developer as an alternative means of provision, which can be used to fund ongoing recreational management (i.e. fencing and signage) of the SAC and/or the creation of alternative natural greenspace by the Council.

8.11 Provided that the existing open space (other than the SAC itself) meets these criteria, new open space may not need to be allocated. It is considered that if the above measures can all be incorporated, the Core Strategy and Site Allocations DPD could be concluded as being unlikely to lead to a significant adverse effect upon Folkestone to Etchinghill Escarpment SAC.

Air quality

8.12 Even if development under the Core Strategy would (in the absence of mitigation) contribute to a significant deterioration in local air quality at the SAC as a result of increased traffic on the local roads, there are several measures already built into the Core Strategy that would seek to mitigate such effects by reducing the scale of the impact as far as possible.

8.13 In particular, the Preferred Options Core Strategy includes policy DM15 (Location of Development and Travel Demand) that aims to ensure that developments that would generate high levels of travel will only be permitted where locations will be well served by a range of transport options.

8.14 Due to this uncertainty, some further measures are necessary in order to strengthen this position and enable the Council to claim that significant adverse effects of the Core Strategy are unlikely:

- Policy DM15 should be strengthened to make specific reference to the need to alleviate pressure on the A20 in the vicinity of Folkestone to Etchinghill Escarpment SAC.
- Any development that could give rise to a material increase in traffic flows on the A20 within 200m of Folkestone to Etchinghill Escarpment SAC should be subject to appropriate assessment, including consideration of their air pollution impacts on the European site as part of the planning application.
- The Council should seek an improvement in air quality in the district so that there is a significant reduction in the number of days of medium and high air pollution by 2026;
- An application for commercial premises or a housing development of more than 10 units can be required to demonstrate that alternatives to road transport are being utilised wherever practical and will minimise the distance necessary, including the number and length of vehicle journeys;
- Where a new development will have a significant impact upon the trunk road network, it will require a transportation assessment including a travel plan. In cases where there is no extra network or infrastructure capacity, mitigation will be expected to support transportation improvements directly linked to the new development.

8.15 All of these measures could be built into an enhanced and strengthened DM15. Policy DM21 of the Core Strategy advocates the need to establish pollution risk and methods to control this. The measures outlined above should be taken into consideration in light of this policy.

8.16 It is considered that if the above measures can all be incorporated, the Core Strategy and Site Allocations DPD could be concluded as being unlikely to lead to a significant adverse effect upon Folkestone to Etchingill Escarpment SAC.

9 Stodmarsh SAC, SPA and Ramsar

Introduction

9.1 This wetland site located in the Stour valley contains a wide range of habitats including open water, extensive reedbeds, scrub and alder carr which together support a rich flora and fauna. The vegetation is a good example of a southern eutrophic flood plain and a number of rare plants are found here. The invertebrate fauna is varied and several scarce moths have been recorded in recent years. The site is also of ornithological interest with its diverse breeding bird community. Two rare British birds Cetti’s warbler and bearded tit, regularly breed in nationally significant numbers. The site is approximately 600 m from the boundary of Dover District at its closest, but more than 10km from the nearest urban part of the district (Sandwich).

Features of European Interest

9.2 The site is designated as a SAC for its population of Desmoulin’s whorl snail (*Vertigo moulinsiana*). A sizeable population of Desmoulin’s whorl snail lives beside ditches within pasture on the floodplain of the River Stour, where reed sweet-grass *Glyceria maxima*, large sedges *Carex spp.* and sometimes common reed *Phragmites australis* dominate the vegetation. Stodmarsh is a south-eastern outlier of the main swathe of sites supporting the species and is important in confirming the role of underlying base-rich rock (chalk) as a factor determining this species’ distribution. The site is also designated as a Special Protection Area for the following wintering species:

- Bittern *Botaurus stellaris*, 2 individuals representing at least 2.0% of the wintering population in Great Britain (5 year peak count, 1987/8-1991/2)
- Hen Harrier *Circus cyaneus*, 9 individuals representing at least 1.2% of the wintering population in Great Britain (5 year peak count, 1987/8-1991/2)

Features of International Interest: Ramsar criteria

9.3 Table 6 details how Stodmarsh meets the Ramsar criteria.

Table 6. Ramsar site criteria

Site	Ramsar criterion 2
Stodmarsh	Supports six British Red Data Book wetland invertebrates, two nationally rare plants, and five nationally scarce species. A diverse assemblage of rare wetland birds.

Condition Assessment

9.4 In the most recent condition assessment, 81% of Stodmarsh was considered to be in favourable condition. The remainder was unfavourable due to lack of scrub control.

Key Environmental Conditions

- Maintenance of sufficient water to support marginal/marsh vegetation and high water quality for Desmoulin’s whorl snail
- Minimal recreational disturbance
- Maintenance of grazing regime

- Maintenance of water supply
- Absence of nutrient enrichment

Potential effects of the Plan

9.5 The part of the site that supports the snail is inaccessible to recreation, while access to other parts of the site (of greater value for birds and other wetland features) is considered to be manageable, so this was considered unlikely to be an issue associated with the Core Strategy Preferred Options. However, other issues did arise, particularly those of water resources and water quality. Note that changes to draft policies (including the levels of housing to be delivered at Whitfield) that have been made for the Submission Stage Core Strategy are covered in Chapter 11.

Water resources

9.6 Although the River Stour as it flows through Stodmarsh is tidal (the tidal limit is at Fordwich), Natural England previously expressed concern that drawdown of water from the site as a result of increased abstraction may mean that insufficient water will be retained within the ditch system to support the marginal vegetation that the Desmoulin's whorl snail requires. The River Stour features asymmetric flow with low-tide outflows lagging significantly behind high-tide inflow. Therefore increased abstraction could have particular impact on low-tide outflow if flow rate is further reduced. The Preferred Options intention to develop 1600 new homes at Deal, 500 at Sandwich and a proportion of 2200 in relevant rural locations will increase demands on water supply from the Stour catchment, which also supplies water to the surrounding districts of Thanet, Canterbury and Ashford, where development will also be taking place.

Water quality

9.7 Development in north Dover and surrounding authorities (i.e. Thanet), will also contribute to increased wastewater discharges into the Stour, which ultimately drains to the European site. This is likely to result in an increase in nutrients in the site leading to a decrease in quality.

9.8 Avoiding an adverse effect is largely in the hands of the water companies (through their investment in future sewage treatment infrastructure) and Environment Agency (through their role in consenting effluent discharges).

9.9 Policies DM21 (Pollution) and DM22 (Groundwater Source Protection Zones) of the Preferred Options constrain development in relation to water quality issues. This does not deal specifically with the significant issue of nutrient enrichment due to effluent discharges. However, the most important role that can be played by the LDF with regard to this issue is for a policy to be drafted that ensures that development within the district keeps pace with the provision of necessary sewage treatment infrastructure, in order to avoid placing excessive demands upon an overburdened sewage treatment system. This is already clearly set out in Policy CP6 (Infrastructure).

Avoidance and Mitigation

9.10 The major effects of the Preferred Options Core Strategy on Stodmarsh will be through water resources and water quality. Given that Stodmarsh lies within the Stour catchment area, development is inextricably linked to the welfare of the site. The Stour is currently considered to have water available, but policy CP6 should be applied such that it ensures that development will be phased in order to keep pace with the development of new water resources i.e. that development cannot occur until sufficient water supply is available. This approach is critical to the well-being of Desmoulin's whorl snail, one of the species responsible for designation of the SAC, and Ramsar, and is reliant on a sufficiently high water table to support appropriate vegetation. The SPA supports bird species that are also affected by water levels (e.g. bittern). The Stour catchment also supplies Canterbury, Ashford and Thanet, creating further resource demands, and so consultation with water companies and the Environment Agency as early as possible in development planning is recommended.

Water quality

9.11 The only additional measure to be proposed is that the Council should establish in preparing the submission stage Core Strategy that there is already sufficient sewage treatment infrastructure capacity to meet the growth that is proposed for the short-term.

Water resources

9.12 To improve development efficiency in relation to water, policy DM3 of the Preferred Options sets out expectations for new development to meet standards in Eco Homes certification system, or alternative, including the need to incorporate water efficiency measures. We would recommend that consideration is given to a policy that requires all new developments to meet the “Code for Sustainable Homes”. The Code for Sustainable Homes has benefits because it has minimum requirements of water efficiency for every different rating. This compares favourably to BREEAM/EcoHomes for which it is not necessary to incorporate water efficiency measures to achieve a rating. In terms of standards that should be achieved, we would suggest a staged approach to be carried out over the next ten years. This would equate to a requirement for all developments to achieve at least a 3 star rating up to 2013, at least a 4 star rating up to 2016 and a 6 star rating after this date.

9.13 The Stour is currently considered to have water available, but it is essential that Dover district is able to demonstrate that it is doing as much as possible to husband water resources. A policy should be incorporated that ensures that development will be phased in order to keep pace with the development of new water resources i.e. that development cannot occur until sufficient water supply is available. Policy CP6 of the Preferred Options requires infrastructure to keep pace with development plans, and this would be therefore be an ideal place to incorporate such a policy. It is also essential that the Council consult with the water company to ascertain that there are sufficient resources to meet development proposed for immediate or short-term delivery.

9.14 The Stour catchment also supplies Canterbury, Ashford and Thanet, creating further resource demands, and so consultation with water companies and the Environment Agency as early as possible in development planning is recommended.

9.15 It is considered that if the above measures can all be incorporated, the Core Strategy could be concluded as being unlikely to lead to a significant adverse effect upon Stodmarsh SAC/SPA/Ramsar site.



10 Conclusions of the Preferred Options Assessment

European sites

10.1 Of the eleven European protected sites identified in the Baseline report, the Dover Core Strategy Preferred Options could potentially affect ten (the Core Strategy could be screened out entirely with regard to the Blean Complex SAC).

10.2 The major pathways of impact are through recreation, water resources and water quality. Sites for which we have been unable to conclude that adverse effects are unlikely as a result of increased recreational pressures resulting from the Core Strategy are:

- Dover to Kingsdown Cliffs SAC
- Lydden to Temple Ewell Downs SAC
- Thanet Coast SAC
- Sandwich Bay SAC
- Thanet Coast and Sandwich Bay SPA
- Thanet Coast and Sandwich Bay Ramsar
- Folkestone to Etchinghill Escarpment SAC

10.3 Sites for which we have been unable to conclude that adverse effects are unlikely as a result of reduced water resources or water quality resulting from the Core Strategy are:

- Thanet Coast SAC
- Sandwich Bay SAC
- Thanet Coast and Sandwich Bay SPA and Ramsar site
- Stodmarsh SAC SPA and Ramsar site

10.4 In addition to the above, we are unable to rule out as unlikely air quality effects on Lydden to Temple Ewell Downs SAC, Dover to Kingsdown Cliffs SAC or Folkestone to Etchinghill Escarpment SAC, nor have we been able to do so for urbanisation effects at Lydden to Temple Ewell Downs SAC, or Thanet Coast and Sandwich Bay SAC/SPA and Ramsar site.

Preferred Options

10.5 All Preferred Options within the Core Strategy were scoped for potential conflicts with European sites. The majority of preferred options in the Core Strategy could be scoped out as there is no scope for any of these policies to result in adverse effects on European sites. The following policies were taken forward for screening, since these are the preferred options that promote development within Dover district or govern its distribution:

- CP1 (Provision for Jobs, Labour Supply and Homes);
- CP2 (Settlement Hierarchy);
- CP3 (Employment Land);

- CP4 (Distribution of Housing Allocations);
- CP6 (Infrastructure);
- CP8 (Dover Wellington Dock);
- CP9 (Mid-Town Area, Dover);
- CP10 (Connaught Barracks, Dover);
- CP11 (Whitfield, Dover);
- DM6 (New Employment Development, Rural); and
- DM29 (Local Shops).

10.6 Ultimately, none of these policies could be screened out of the assessment, largely due to the potential for cumulative impacts on European sites. However, it is considered that only a small number of policies (DM20 or DM31, CP6, DM3 and DM15) need to be altered in order for the Habitats Regulations Assessment to conclude that the Core Strategy is unlikely to lead to a significant adverse effect on European sites. The recommended amendments are set out below.

Avoidance and mitigation measures

10.7 As detailed in Chapter 2, the level of detail concerning developments that will be permitted under LDF's (and to an extent, knowledge concerning the sensitivities and vulnerabilities of European sites) is insufficient to make a detailed assessment of significance of effects, beyond the levels of risk identified in preceding sections either practical or reasonable. Therefore, we find it most productive to take a precautionary approach (in the absence of more precise data) and essentially combine AA Stages 2 and 3 of the CLG guidance, assuming that all those impacts identified as 'likely' are actual impacts that will require mitigation. The purpose of this section of the report is therefore be to try summarise the measures that should be incorporated into the Submission Stage Core Strategy to enable the Council to be confident that they have gone as far as they can to ensuring that significant adverse effects on European sites as a result of the Core Strategy is rendered unlikely.

10.8 The assessment of the Preferred Options Core Strategy concluded that the Core Strategy's specific biodiversity-related policies (essentially DM20) are in themselves appropriate, but with regard to HRA the Core Strategy as a whole could be strengthened by the following further references:

Recreational pressure

- Policy DM20 (Biodiversity and Geology) or Policy DM31 (Open Space and Outdoor Recreation Policies) should incorporate standards for provision of new semi-natural greenspace for new developments that ensure that Natural England criteria are met for new development across the district:
 - Provision of at least 2ha of accessible natural green space per 1,000 population
 - No person should live more than 300m from their nearest area of natural green space.
 - There should be at least one accessible 20ha site within 2km from home.
- Any open space created to fulfil these standards will need to serve a similar recreational function to the European sites from which they are intended to draw recreational users (i.e. primarily dog walking and the appreciation of nature). The policy should also include a note that any new open space would need to be provided in advance of the new development being occupied.

- The policy should also incorporate text to state that where it is considered impractical or inappropriate to provide such open space with new developments, or for all developments of less than 10 dwellings/0.4 ha, or where the open space that would be provided is likely to be of an inappropriate character to deflect users, the Council should require a financial contribution from the developer as an alternative means of provision, which can be used to fund ongoing recreational management (i.e. fencing and signage⁽ⁱ⁾) of the SAC and/or the creation of alternative natural greenspace by the Council elsewhere within the district.
- Kent County Council is proposing highways improvement (East Kent Access Phase 2) that will involve work adjacent to Thanet Coast SAC, Sandwich Bay SAC, and the SPA and Ramsar sites. Although not within the remit of the Dover district LDF, it is worth noting that appropriate assessment of the South East Plan recommended full appropriate assessment of this scheme due to potential disturbance of birds using the sites. In view of this, it will be important to ensure that Dover district policies leading to development near to and/or increased recreational use of these sites (most obviously, CP4, SAD 23) do not contribute to any 'in combination' effect during the East Kent Access Phase 2 construction.

Urbanisation

- Policy DM20 or DM31 should allow for financial developer contributions where open space cannot be provided; in addition to assisting with recreational pressure by enabling greater management of European sites, such a policy would enable the Council to contribute to the installation of fencing, wardens, increased surveillance etc. to control the 'urbanisation' impacts of the increase in households within close proximity to Dover to Kingsdown Cliffs SAC, Lydden to Temple Ewell Downs SAC, or Thanet Coast and Sandwich Bay Ramsar site.
- In order to avoid urbanisation of Lydden & Temple Ewell Downs SAC development at Whitfield should not encroach south of the A2 if possible.

Water quality

- The only additional measure to be proposed is that the Council should establish in preparing the submission stage Core Strategy that there is already sufficient sewage treatment infrastructure capacity to meet the growth that is proposed for the short-term.

Water resources

- To improve development efficiency in relation to water, policy DM3 (Construction Standards) sets out expectations for new development to meet standards in Eco Homes certification system, including the need to incorporate water efficiency measures. We would recommend that consideration is given to a policy that requires all new developments to meet the "Code for Sustainable Homes" Excellent standard or equivalent. The Code for Sustainable Homes has benefits because it has minimum requirements of water efficiency for every different rating. This compares favourably to BREEAM/EcoHomes for which it is not necessary to incorporate water efficiency measures to achieve a rating. In terms of standards that should be achieved, we would suggest a staged approach to be carried out over the next ten years. This would equate to a requirement for all developments to achieve at least a 3 star rating up to 2013, at least a 4 star rating up to 2016 and a 6 star rating after this date.
- The Stour is currently considered to have water available, but it is essential that Dover district is able to demonstrate that it is doing as much as possible to husband water resources. A policy should be incorporated that ensures that development will be phased in order to keep pace with

i Precise details of measures to be implemented and the actual scale of any contribution would need to be agreed with Natural England.

the development of new water resources i.e. that development cannot occur until sufficient water supply is available. Policy CP6 requires infrastructure to keep pace with development plans, and this would be therefore be an ideal place in incorporate such a policy.

Air quality

10.9 Policy DM15 (Location of Development and Travel Demand) should be amended to include further measures to enable the Council to be confident that they have gone as far as they can to ensuring that significant adverse effects on European sites as a result of the Core Strategy and Site Allocations DPD are rendered unlikely:

- Policy DM15 should be strengthened to make specific reference to the need to alleviate pressure on the A2 in the vicinity of Lydden to Temple Ewell Downs SAC or A20 in the vicinity of Folkestone to Etchinghill Escarpment SAC.
- Any development that could give rise to a material increase in traffic flows on the A2 within 200m of Lydden and Temple Ewell Downs SAC or A20 within 200m of Folkestone to Etchinghill Escarpment, should be subject to appropriate assessment, including consideration of their air pollution impacts on the European site as part of the planning application.
- An application for commercial premises or a housing development of more than 10 units can be required to demonstrate that alternatives to road transport are being utilised wherever practical and will minimise the distance necessary, including the number and length of vehicle journeys;
- Where a new development will have a significant impact upon the trunk road network, it will require a transportation assessment including a travel plan. In cases where there is no extra network or infrastructure capacity, mitigation will be expected to support transportation improvements directly linked to the new development.

10.10 The Council should also seek an improvement in air quality in the District so that there is a significant reduction in the number of days of medium and high air pollution by 2026.

10.11 It is important to note that EC Guidance on mitigation measures for impacts on European sites (Appendix 3) not only requires the detail of the method and delivering organisation and timescale, but also a mechanism for monitoring the efficacy of such measures. This mechanism could be enshrined within the Core Strategy itself under a specific 'Monitoring' policy which could not only cover the HRA mitigation measures, but also the delivery of the LDF and its commitments as a whole.

10.12 With the above identified measures incorporated, it is possible to state that the Core Strategy is unlikely to lead to significant adverse effects on European sites.

10.13 Note that these recommendations for avoidance and mitigation measures related to the Preferred Options Core Strategy. Since that time, several changes have been made to the Core Strategy for Submission stage (particularly, the level of housing to be delivered at Whitfield) and the above recommendations have therefore been reappraised in the light of these changes and revised as appropriate. The reassessment of the changes to the Core Strategy for Submission and the associated changes to the HRA recommendations are dealt with in detail within the next chapter (Chapter 11).

11 Submission Core Strategy

11.1 An HRA of the Preferred Options Core Strategy was first published in February 2008. That HRA is documented in the preceding Chapters 3 – 11 of this report. Since that time, as part of the development of the Submission Core Strategy, several changes have been made to draft policies (particularly regarding an increase in the scale of housing provision at Whitfield). In order to ensure that the HRA is still representative of the Core Strategy it is therefore necessary to subject these policy changes to assessment. In order to maintain clarity, minimise repetition and show how the Core Strategy and HRA have evolved over time, these Submission stage changes are assessed in a wholly new chapter (Chapter 12). Chapter 12 also addresses responses received to the Preferred Options HRA consultation and considers changes to the evidence base in the period since the last iteration of HRA (such as existence of an outline Water Cycle Study) in order to present a final revised set of recommendations.

11.2 This section of the report is therefore intended to cover two elements:

- Amendments to the HRA itself (particularly its recommendations) in response to comments on the HRA received during the public consultation exercise; and
- Amendments to the HRA in order to reflect changes in the Core Strategy between Preferred Options and Submission stages.

Public Consultation

11.3 While it is not a requirement of the Conservation (Natural Habitats &c) Regulations 1994 (amended 2007) to consult anyone other than Natural England, local authorities are entitled to do so and in this case Dover District Council chose to publish the HRA report for public consultation along with the Preferred Options Core Strategy and Sustainability Appraisal.

11.4 A total of 23 representations were made on the Preferred Options HRA by five people or organisations (RSPB, Kent Wildlife Trust, Crest Strategic Projects Ltd, Sheperdswell Parish Council and Mr. Maxwell McDowell). Natural England, in their overall comments on the Core Strategy did not comment in detail on the HRA other than to acknowledge that they agreed with our recommendations.

11.5 The RSPB's comments were generally supportive but included the statement that "*The features of the Thanet Coast and Sandwich Bay SPA are not listed correctly. In addition to turnstone, golden plover and little tern are features on the SPA citation. The mistake has been made because the JNCC website lists the 2001 SPA review, which just recorded turnstone in qualifying numbers. However, the 2001 SPA review has not been used to update the SPA citations, therefore, the original citations and qualifying features still stand. It is important to include golden plover in the assessment because golden plover use the wet grassland part of the sites, whereas turnstones just use the beach. Therefore, if golden plover are missed out of the assessment, impacts on the wet grassland could be missed out.*"

11.6 We accept this correction and golden plover and little tern have been added to the list of European Interest features in this updated (January 2008) version of the HRA report.

11.7 The observations and objections raised by Mr. Maxwell McDowell and Sheperdswell Parish Council, although made in response to the HRA, covered broader issues with the Core Strategy and Sustainability Appraisal than adverse effects upon European sites and are therefore not appropriate for further consideration in this particular report.

11.8 Kent Wildlife Trust made a very detailed submission which broadly accepted the assessment itself but expressed concerns over the proposed mitigation/avoidance measures. It is considered that the detailed comments merited a point by point response and this is contained within the Table below.

Detailed response to Kent Wildlife Trust comments on the first draft HRA of the Dover Core Strategy

Kent Wildlife Trust Comment	Scott Wilson Response
<p>The proposed mitigation measures are couched in generalised terms. For example, the assessment recommends that <i>'Policy DM15 should be strengthened to make specific reference to the need to alleviate pressure on the A2 in the vicinity of Lydden and Temple Ewell Downs SAC'</i>. No indication is given as to an effective wording for such policy, nor the degree to which pressure would need to be alleviated.</p>	<p>To a large extent generalised terms are unavoidable where a strategic land use plan such as a Core Strategy is concerned. With regard to the specific example cited, we have deliberately avoided providing specific policy wording, preferring to provide a recommendation that allows the local planning authority to determine the exact form of words to use. This enables us to maintain a separation between the people undertaking the HRA and the people writing the Development Plan Document. We have also not stipulated a <i>'degree to which pressure would need to be alleviated'</i> in this case because that particular recommendation was intended to require developers and development control officers to take air quality (along these specific roads within these specific locations) into account in planning applications/decisions and therefore does not need a specific degree of pressure to be identified in order to serve its function.</p>
<p>Some measures appear to be outside the control of the Local Planning Authority, particularly the proposed mechanism for avoiding recreational impacts at Sandwich Bay, which the assessments notes can only be delivered outside Dover district. It is unclear how the Core Strategy will be able to demonstrate that the impacts of its policies will be avoided in such a case.</p>	<p>Our comments have been misunderstood. There is no reason why the mitigation for recreational impacts on Sandwich Bay SAC/Thanet Coast & Sandwich Bay SPA/Ramsar site would need to be provided outside the district. Rather, it is our view that to fully offset the 'in combination' effect caused by the development within Dover and surrounding districts a coordinated approach by the local planning authorities in conjunction with Natural England would be necessary. However, Dover District's contribution would be entirely within the control of the Council.</p>
<p>No assessment appears to have been undertaken to identify whether there is any potential to [actually] create new open space of the type, size and location required to mitigate potential recreational impacts upon Natura 2000 sites.</p> <p>Nor is it clear that such provision could be funded.</p> <p>Neither can there be any certainty that it is within the power of the Local Plan Authority to alleviate traffic pressure on the A2 or to secure an improvement in air quality in the district in such a way that it mitigates any potential increase in aerial pollution in the vicinity of sensitive sites: such aspirational targets have no place in a document of this kind.</p>	<p>According to the Dover Greenspaces Strategy of 2004, there are 457.15 hectares of natural and semi-natural green space spread across 36 sites. Even excluding the designated nature reserves, this leaves 278ha of undesignated but accessible 'natural' greenspace. Accessible natural and semi-natural greenspace therefore currently comprises the single most extensive type of green space in Dover district. As yet no study has been undertaken to determine the existing or future recreational 'capacity' of these existing sites, but if such a study indicated that any areas were 'under capacity', these could count towards the allocation required to minimise adverse effects on European sites. There is also considerable opportunity for the provision of accessible natural greenspace on new sites given that so much of Dover district is rural and undeveloped. We acknowledge that the draft standards of provision could be clarified regarding the scale and location of site provision and that has been done as part of this current iteration of HRA.</p> <p>A mechanism for funding such provision (such as a Developer Contributions policy) is mentioned in throughout the report. It is worth noting that the only developer that commented upon the HRA (Crest Strategic Projects Ltd) stated that they believed that developer contributions were workable in this context.</p>

Kent Wildlife Trust Comment	Scott Wilson Response
	<p>It is necessary to be realistic when devising mitigation measures to be incorporated within a Core Strategy. It is generally not possible to predict in advance the precise scale of impact or improvement that can be delivered by a given mitigation measure for those measures which are available at the strategic planning level since a policy to <i>'require developers to produce travel plans indicating that they have maximised opportunities for sustainable transport'</i>, for example, cannot be directly linked to a specific reduction in the number of vehicles, although a specified reduction can be set as a monitoring target against which the success or failure of mitigation measures can be defined. Despite this, our view is that it would not be proportionate to conclude as a result of these knowledge gaps that there is no way that any development could ever be accommodated (since the absence of evidence is due to the novel nature of the mitigation tools available and the limitations of the science, rather than any indication that a problem exists) and have taken the view that the most reasonable approach is to require the LDF to:</p> <ul style="list-style-type: none"> • incorporate an extensive suite of measures to encourage the use of sustainable transport, maximize the provision of such transport and discourage car use as far as possible; • require planning applications to undertake transport assessments through which it can be demonstrated that all opportunities are being taken for minimizing car use; and • couple these measures with monitoring of the air quality in the European site before and for a number of years after introduction of the measures, such that further measures can be devised if the air quality does not improve.
<p>No indication is given how recreational pressure is to be directed towards the new open space to be provided. Access restrictions, wardening and other such measures are not an alternative to provision of new open space, but a necessary adjunct if the mitigation is to be successful.</p>	<p>Agree. We do include access and site management measures in our recommendations, but it is true that they were couched as an alternative to the provision of alternative greenspace. This updated version of the HRA report includes an amendment to our recreation recommendations to clarify the intention.</p>
<p>No indication is given as how the various mitigation measures should be triggered. What level of development, for example, would trigger measures to limit traffic flows on the A2?</p>	<p>We would intend the air quality measures to be introduced from the time of adoption of the Core Strategy. With regard to recreational pressure, water quality and water resources we have identified 'triggers' in terms of linking the measures explicitly to the pace of development.</p>
<p>In some cases, the buck is passed to individual development proposals, as when it is suggested that any development</p>	<p><i>'Buck passing'</i> implies that no action is proposed at the district scale. The quoted measure is only one of a suite of five measures (four of which are directly targeted at local air quality). The fact that one of the measures would direct individual applications to</p>

Kent Wildlife Trust Comment	Scott Wilson Response
<p>that could give rise to material increase in traffic flows on the A20 should be subject to appropriate assessment. This is entirely inappropriate given that it is clearly identified that expansion of Dover Port, a development critical to Dover's regeneration and central to the LDF, will be one of those developments... there is a real likelihood that the proposed port expansion could fail unless it can be made to happen in a way that avoids any increase in traffic on the A20. Deliverability is central to a sound Core Strategy, and therefore the mechanisms for avoiding any impact on Natura 2000 sites from strategically important developments must necessitate a strategically planned solution. Where developments are spatially constrained (as with Dover Port), avoidance mechanisms are likely to require spatial planning as well.</p>	<p>consider the air quality along the A20 and A2 within their Appropriate Assessments is an acknowledgement of the fact that:</p> <ul style="list-style-type: none"> • many scheme details that would be necessary to fully evaluate the air quality impacts in detail are never available until the project level and therefore project level appropriate assessment is necessary to close the issue completely; and • many of the most effective mitigation measures to control air quality on the A20 or other roads cannot be delivered or targeted as part of a Core Strategy but only available at the project level (e.g. controlling the number of vehicle journeys generated by a particular commercial development). <p>The expansion of Dover Port is not within the control of the Council in that it is determined by the Harbour Board through the Harbour Revision Order process rather than by the Council through the planning system. The Council do state their expectations for the port expansion in paragraph 7.10 of the Core Strategy in that: "<i>The Council would want to ensure that the opportunity to develop a second terminal at the Western Docks is used to improve the existing local traffic and environmental conditions, which would mean looking again at the strategic routeing of traffic</i>" and in Statement 2, where they state that: "<i>The District Council supports the development of a freight and passenger ferry terminal at Dover Western Docks provided... it includes the implementation of an access strategy that improves environmental conditions on the A20 Dover urban sections and enables a rail freight connection [and that]... pollution issues (air quality, noise and light) are fully addressed.</i>" While we would recommend that the reference to 'urban sections' of the A20 is expanded to refer to Folkestone to Etchinghill Escarpment SAC it seems clear that the Council has done the most it can to influence the environmental effects of the port expansion given that it is outside their direct control.</p> <p>With regard to the impacts of the Core Strategy in conjunction with the expansion of the Port, the issue is one of an 'in combination' effect and the Core Strategy cannot reasonably be expected to mitigate for the effects of other plans or projects but only for its own contribution (through for example the scale of housing delivery during the same time period)ⁱ. The local authority cannot realistically close or re-route the A20, prohibit vehicles from using it, or introduce a toll for the section of road that runs adjacent to the SAC, while much of the port-related traffic that will use the route will not arise from within Dover district and therefore cannot be controlled by the Council at the point of origin. In terms of mitigating the Core Strategy's contribution to any 'in combination' effect, therefore the Core Strategy already states in policy DM15 (Location of Development and Travel</p>

i This view is supported by comments made by Natural England in other regions, for example in their response to the North West Regional Spatial Strategy

Kent Wildlife Trust Comment	Scott Wilson Response
	<p>Demand) that developments that would generate high levels of travel will <u>only</u> be permitted where locations will be well served by a range of transport options.</p> <p>When this is coupled with the measures we have recommended, it is difficult to see what more the Core Strategy could do to minimise its contribution to the overall increase in traffic flows on the A20 or to facilitate the use of transport routes other than the A20 by vehicles associated with the Port.</p>

11.9 The representations of Crest Strategic Projects Ltd (CSP) seek the adoption of Option 4 with development to the east and west of Whitfield (Option D of the Submission Core Strategy) and the construction of a new A2 / A256 link. They comment that, “whilst the A2 would be down-graded between the western end of the new link and the Whitfield roundabout, it would still function as a route with the centre of Dover. As a consequence, it would remain a significant barrier in terms of ‘spill over’ recreational pressure.” However, since there is an existing footpath crossing the SAC and a Public Right of Way along the Temple Farm underpass, it is our view that the ‘barrier’ effect of a downgraded A2 may not be as effective as CSP anticipate. Crest Strategic Projects Ltd also expressed support for the sentiment that major development at Whitfield, associated with the construction of a new A2 / A256 link, has the potential to lead to a reduction in the level of air pollution at the Lydden and Temple Ewell Downs SAC.

11.10 CSP also commented that “Paragraph 6.10 [of the HRA] suggests that Option 4 would appear to be the least favoured option due to the increase in recreational pressure on the SAC. Crest Strategic Projects do not agree with this assessment since Option 4 brings with it the ability to both plan comprehensively and to provide the full social and physical infrastructure necessitated by the development. This would include the list of mitigation measures set out in paragraph 6.11 [of the HRA]”. We accept the point that CSP are making, in that we do not believe Option 4 is inherently unworkable, we remain of the view that it is nonetheless the least favourable of the four options with regard to impacts on this particular European site as a result of the greater proximity of development that would be delivered.

Changes to the Core Strategy

11.11 Numerically speaking, there have been relatively few changes to the Core Strategy since the public consultation. The changes are shown in Appendix 2. It can be seen that the principal change is to increase the overall ultimate housing figure by 40% from 10,000 to 14,000, with the entire additional 4,000 dwellings likely to be delivered within Dover town itself. The Submission State Core Strategy allocates land for 14,000 new homes with the aim of providing at least 10,100 homes by 2026 (a 1% increase on the February 2008 figures); the remaining 3,900 would be delivered as part of a post-2026 opportunity on land to the west of Whitfield. These changes are reflected in proposed changes to the South East Plan (July 2008) including revised and increased housing allocations of 5,800 in Shepway, 10,200 in Canterbury, and 7,500 in Thanet.

11.12 The Core Strategy has been revised such that the various options (1-4) have been amended and are now presented in the Submission Core Strategy as Options A - E. Option D is now the Council’s preferred option to 2026 (i.e. during the current plan period) and (unlike Option 3) involves the delivery of housing to both the east and west of Whitfield totalling 5,790 homes.

11.13 In contrast, the quantum of employment floorspace to be delivered has been reduced from 250,000 m² to 200,000 m² according to Policy CP2. There has been some small scale reallocation within Dover itself with 100 homes being removed from the Mid-Town allocation and added to that

for Dover Waterfront. Given the scale of housing to be delivered within Dover itself it is unlikely that the shift of 100 homes will result in a material change to the impact assessment or a need for further mitigation regarding European sites.

11.14 Housing to be delivered at Aylesham (1,000 dwellings) is separated out from the rest of the rural housing figure. However, the actual level of housing to be delivered at Aylesham has not changed.

Amendments to the Habitat Regulations Assessment

11.15 The changes to the Core Strategy detailed above, coupled with changes in the practice of devising mitigation measures for recreational effects on European sites, and further work that has been undertaken by the Council (such as the Water Cycle Study and further masterplanning work regarding some of the key development areas) have led us to revise some of our recommendations. In some instances the additional work undertaken by the Council has rendered the previous recommendations unnecessary (particularly regarding water resource and quality issues following work undertaken for the Water Cycle Study), while in others, it has been concluded that the additional housing requires further measures. It is our view that the following measures will still need to be incorporated before the Council can consider that the Core Strategy would not indirectly lead to adverse effects upon the European sites identified in this appraisal.

Recreation recommendations

11.16 An increase in the quantum of housing to be delivered at Whitfield from 1,790 dwellings to 5,790 dwellings will clearly mean a substantial increase in recreational pressure if one relates the increase in dwellings to a proportional increase in the number of visitors. While Lydden to Temple Ewell Downs SAC is the site most likely to experience adverse effects (prior to additional mitigation) from the increased housing allocation at Whitfield, it is also possible that those other European sites that lie within the typical recreational distances identified in the England Day Visits Surveys (i.e. Folkestone to Etchinghill Escarpment SAC, Dover to Kingsdown Cliffs SAC and Thanet Coast & Sandwich Bay SAC/SPA/Ramsar) would also experience a further increase in recreational pressure. This is particularly the case since these changes must be considered within the context of the housing to be delivered elsewhere in Dover district, which has not been significantly altered for the Submission stage, and increased housing levels to be delivered across Kent as a result of the proposed changes to the South East Plan (July 2008) including revised and increased housing allocations of 5,800 in Shepway, 10,200 in Canterbury, and 7,500 in Thanet, all of which will contribute cumulatively to an increase in recreational pressure.

11.17 An existing mechanism for providing mitigation to offset the increased population at Dover has already been developed for the Preferred Options and consists of a combination of alternative greenspace provision close to the new development locations and access management of European sites considered at risk. However, the scale of alternative greenspace provision at Whitfield will clearly need to be increased in order to match the increased population that can be expected at the settlement following the Submission stage update in housing allocations. In order to provide more implementation detail (including how recreational activity will be encouraged on and directed to the new open space) in line with the consultation responses on the HRA and to provide further information on the type, size and location of accessible natural greenspaces to be provided, we have therefore elaborated upon and increased the scale of the necessary mitigation measures, below. One particularly important amendment to the required mitigation is the linkage between provision of alternative natural greenspace for recreation and access management (such as improved fencing, wardening, signage, surveillance etc) of the European sites that have been identified as being at risk. This linkage is now stronger than in the previous recommendations made at the Preferred Options stage and is of particular importance regarding the increased scale of development at Whitfield due to the easy access to the Lydden to Temple Ewell Downs SAC as a result of the presence of an existing footpath crossing the SAC and a Public Right of Way along the Temple Farm underpass.

11.18 Due to the limitations of the assessment tools and data available at this time (and in particular the inability to quantify the number of residents of each allocated site that will be making use of the European sites in question and what proportion of the total cumulative load this represents), coupled with the need for any standards within the Core Strategy to be generally applicable (it not being possible to devise a unique policy or standard for each allocated site), it is not possible for the Core Strategy to specify an exact quantity of alternative natural greenspace that will need to be provided for individual developments in order to absorb recreational visitors to such an extent that they will not materially contribute towards recreational pressure on the European sites in question.

11.19 Natural England's more general Accessible Natural Greenspace Standards (ANGSt) provide a set of benchmarks for ensuring access to places of wildlife interest and were specifically developed to provide size and distance criteria to provide natural spaces that will contribute most towards sustainable use of recreational resources. While the criteria were not developed with the specific intention of mitigating for adverse impacts on European sites, they were intended to specify a level of semi-natural greenspace provision that would meet the needs of a development's population.

11.20 In many cases natural greenspace provision to the ANG Standard should therefore serve to minimise the need for recreational resources further afield (i.e. European sites) to receive an unsustainably large influx of visitors provided that they are delivered within a timescale linked to that of the development and will fulfil a function similar to that of the European site in question (i.e. dog walking and appreciation of nature rather than more formal recreational activities). For these reasons, we have selected the Natural England ANG standards as the criterion for semi-natural greenspace provision that the Core Strategy should require developments to meet in order to ensure that sufficient recreational space is provided to minimise adverse effects on the identified European sites.

11.21 The Natural England ANG standard would require accessible natural green space at a rate of 1ha/1000 populationⁱⁱ, which assuming a new headline delivery figure of 14,000 homes in the district and 2.2 occupants per home, would require a minimum of 31ha of accessible natural greenspace to be delivered in parallel with the occupation of the 14,000 new homes. Dover's current standards for natural greenspace are at least 4ha/1,000 people, which is four times the ANG standard. We would fully support this higher level of provision, but would recommend the following additional details to be included either within the Core Strategy or within an associated SPD.

- No individual area of natural greenspace should be less than 2ha in size, as the research underlying the ANG standard indicated that smaller sites were often too disturbed to have much biodiversity.
- The distribution would be as follows (the scale of provision is linked to the scale of new housing development):

Location	Number of new dwellings	Associated population increase (using 2.2 occupants per dwelling as the multiplier)	Quantity of accessible natural greenspace to be delivered (using 4ha/1000 population as the provision standard)	Maximum number of sites to be delivered (using 2ha as minimum size)
Dover overall (Whitfield component)	9,700 (5,790)	21,340 (12,738)	85.4 ha (60.0ha)	42 (30)
Deal	1,600	3,520	14.1 ha	7
Sandwich	500	1,100	4.4 ha	2
Aylesham	1,000	2,200	8.8 ha	4

ii The 1ha/1000 people ratio contained within Natural England's ANG standard was based upon experience studying small reserves that combine local biodiversity with high levels of use in a well-designed and managed natural setting

Location	Number of new dwellings	Associated population increase (using 2.2 occupants per dwelling as the multiplier)	Quantity of accessible natural greenspace to be delivered (using 4ha/1000 population as the provision standard)	Maximum number of sites to be delivered (using 2ha as minimum size)
Rural	2,200	4,840	19.4 ha	9
Total	14,000	33,000	132.1 ha	64

- Individual developments should, where possible, deliver this natural accessible greenspace. In addition, and particularly where it is considered impractical or inappropriate to provide such a scale of open space on site⁽ⁱⁱⁱ⁾, the Council should require a financial contribution from the developer as an alternative, which can be used to fund the provision of new Local Nature Reserve quality sites delivered by the Council and enhanced access & site management for the European sites^(iv). Size of contribution would be linked to the size of the development.
- The specific locations for these areas of natural greenspace would need to be targeted such that they are closer to the key centres of new housing than the relevant European sites or, in the case of Whitfield and Connaught Barracks, at least as close. Based on the conceptual masterplan developed by the Council for housing to the east of Whitfield, this should be deliverable and effective and the Council has already taken steps in their green infrastructure plans to include such greenspace into their overall green infrastructure for the district.
- The Council should use the funds raised to designate new statutory Local Nature Reserves at a minimum of 4ha/1000 population to cover any shortfall in provision by developers.
- Delivery of the greenspace would need to be phased in parallel to occupation of the developments it was intended to serve and would need to serve a similar recreational function to these sites, from which it is intended to draw recreational users (i.e. dog-walking and appreciation of nature). However, that does not mean that it would have to be identical in terms of habitats. Existing natural greenspace could be included within the allocation provided that a visitor study could demonstrate that it did not already meet its maximum recreational capacity. For example, the Submission Core Strategy currently intends to utilise the playing fields at Connaught Barracks as part of the open space allocation for that development, which would be acceptable provided they were adapted to meet the other criteria for Accessible Natural Greenspace
- Each of the accessible natural greenspaces would need to be linked to signage and information in order to attract visitors.

11.22 We have reviewed the emerging green infrastructure plans that have been produced by the Council. These show that the Council already has extensive plans and opportunities for large scale habitat creation and extension of future green infrastructure in locations that would aid to attract recreational visitors from the European sites considered in this assessment. Ultimately these new areas of green infrastructure would consist of three major interlinked areas: one at the south of the district that would connect to Lydden & Temple Ewell Downs SAC, one along the southeast coast which would connect to Dover to Kingsdown Cliffs SAC and a major wetland creation opportunity in

iii Such as for all developments of less than 227 dwellings, which by themselves (and assuming a multiplier of 2.2. residents per dwelling) would not allow delivery at a rate of 4ha/1000 population while still maintaining the 2ha minimum site size

iv Such as wardening, fencing and signage. This would particularly apply to Thanet Coast/Sandwich Bay SAC SPA & Ramsar site, for which it is considered that the provision of additional greenspace will only act as a partial measure to deflect recreational visitors. This would need to be achieved in liaison with Natural England and the relevant landowners

the north of the district to link into Thanet Coast & Sandwich Bay SPA/Sandwich Bay SAC. As such there are likely to be no difficulties in achieving the scale of habitat creation identified in our recreation recommendations above.

Air quality recommendations

Whitfield

11.23 The need to locate housing to the west of Whitfield as well as the east (in order to achieve a minimum of 5,750 homes) represents a 221% increase over the preferred option in the Preferred Options Core Strategy (1,790 homes). On initial consideration, this would substantially increase the risk of an adverse effect upon Lydden to Temple Ewell Downs SAC through indirectly leading to substantial increased traffic flows on the A2 as it passes within 200m of the European site. This is particularly the case, since these changes must be considered within the context of the housing to be delivered elsewhere in Dover district, which has not been significantly altered for the Submission stage, and increased housing levels to be delivered across Kent as a result of the proposed changes to the South East Plan (July 2008) including revised and increased housing allocations of 5,800 in Shepway, 10,200 in Canterbury, and 7,500 in Thanet, all of which will contribute cumulatively to an increase in vehicular use of the A2 and therefore increased deposition of NO_x.

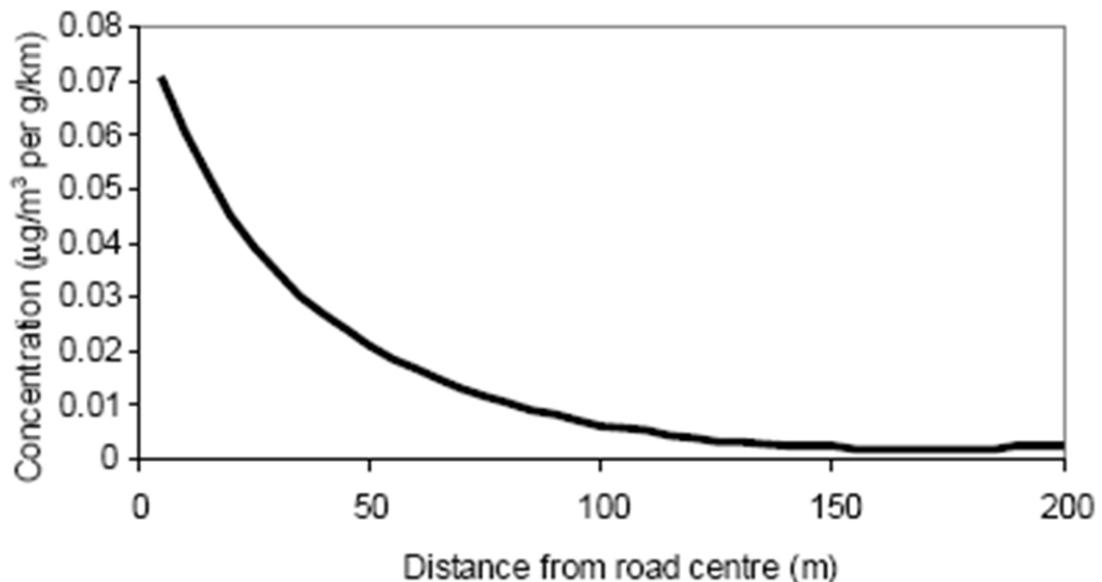
11.24 However, only approximately 2ha of the site located within Management Unit 5 (i.e. 3% of the total area of the SAC^(v)) lies within the 200m zone within which the vast majority of NO_x emitted by traffic from the road will be found, and that part of the site is itself 90-100m from the road at its closest, which is sufficiently distant for NO_x concentrations due to the road to be a small proportion of those at the road edge itself and only slightly above background (see Figure 1, below), particularly given that the ground on the SAC side of the road slopes steeply upwards which will reduce the distance travelled by the majority of NO_x. It also needs to be borne in mind that Unit 5 of the SAC was described in the last Natural England condition assessment as being in 'excellent condition with a wide range of indicator species' implying that the site doesn't seem to be suffering from excessive localised nutrient deposition as a result of the road at the moment, notwithstanding the currently high vehicle movements or the fact that air quality at the site currently exceeds the minimum critical load for nitrogen deposition at chalk grassland (according to the UK Air Pollution Information System).

11.25 As such, any adverse effect even in combination is likely to be relatively small and while the precautionary principle prevents us from ruling out any adverse effect^(vi), the necessary mitigation measures to be deployed need to be commensurate with the probable scale.

11.26 Figure 1. Example of traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT). The relationship between distance and NO_x concentration is clear, although it should be noted that the actual NO_x concentrations are specific to this particular example.

v Total area of the SAC according to the 'Nature on the Map' website www.natureonthemap.org.uk is 62.77 ha

vi Bearing in mind the requirement of the South East Plan Implementation Plan to dual the A2 as it passes the European site; while this may well reduce congestion (and therefore reduce nitrogen deposition from standing traffic adjacent to the SAC) it may also, if the new carriageway was on the south side of the current alignment, bring the road closer to the SAC



11.27 Policy CP 11 states that to allow development at Whitfield it would need to be established that 'The development is acceptable in terms of traffic generation and access and a Travel Plan is prepared and agreed to demonstrate this', while the Dover Transport Strategy identifies a range of measures that will be put in place to encourage walking, cycling and use of public transport and to discourage private car use:

- Improved access to Dover Priory Station and CTRL services
- Park and Ride at Whitfield and A20 approach
- Whitfield to Dover town centre and Port cycle route
- Bus only Pencester Road
- New express bus services
- Improved accessibility for pedestrians and cyclists, including major new Townwall Street crossing; and in particular
- A strong transport awareness and behavioural change programme.

11.28 The delivery plan within the submission Core Strategy identifies that the necessary transport infrastructure for the expansion of Whitfield would be put in place between 2011 and 2016 and housing delivery at Whitfield will keep pace with this provision. The number of alternative transport mechanisms identified in the Dover transport plan (particularly the behavioural change programme) would, given the relatively small deterioration in local air quality that can be expected even if the A2 remains a busy road and the current good condition of the SAC despite proximity to the road, contribute to countering further deterioration in air quality as a result of the road. However, given the nature of the measures outlined, their implementation must be accompanied by monitoring of the air quality in Lydden & Temple Ewell Downs SAC both before and for a number of years after introduction of the measures, such that further measures can be devised if the local air quality fails to improve. It is possible to predict the desired quantum of improvement by referring to the critical load (nitrogen deposition) or critical level (NO_x).

11.29 Moreover, the adverse effects discussed above would only result if the A2 adjacent to the European site maintained its current alignment and continued to take the majority of car traffic generated by the development. In fact, the revised Core Strategy makes it clear that the A2 and A256 would both 'need to be reconfigured to enable development and easier localised north/south movements.' This would therefore indicate that opportunities are available to avoid adverse local air quality effects on the European site entirely. The table after paragraph 5.67 of the Submission Core Strategy states that the currently envisaged new A2/A256 link will be to the north of Whitfield. If the

opportunity was taken to place a link road to connect the A2 north of Temple Farm into the A256 across the north of Whitfield, this would place the entire Lydden & Temple Ewell Downs SAC considerably more than 200 m from the new alignment.

11.30 Taken together, the measures identified within the Dover Transport Strategy, coupled with an appropriately situated link road between the A2 and A256 that would draw traffic generated by the development away from the A2 as it runs within 200m of Lydden & Temple Ewell Downs SAC would mean that no additional measures are necessary beyond those identified by the February HRA, even with the expansion in housing to be located at Whitfield. However, this conclusion is contingent on the ability of the new link road project to address the issue of air quality at Lydden & Temple Ewell Downs SAC by drawing traffic away from the most vulnerable portion of the SAC (Management Unit 5). Significant development should not occur to the west of Whitfield until this link road has been addressed. If it proves impossible or unlikely that an appropriate link road can be done in such a way as to set back the main trunk route at least 200m from Lydden to Temple Ewell Downs, further measures specific to Whitfield would need to be considered.

Other settlements

11.31 The housing provision elsewhere in the district has not been revised (other than a minor redistribution between Dover Waterfront and Mid-Town) and therefore no amendments are required to the mitigation measures with regard to these proposals. Although the expansion of Dover Port will add cumulatively to traffic movements along the A20 in particular, this was accounted for in determining adverse air quality effects on Folkestone to Etchinghill Escarpment and the district Council can only reasonably be responsible for mitigating their own contribution to the overall adverse effect; the expansion of Dover port being beyond the Council's direct control. Assuming therefore that the measures identified within the Dover Transport Strategy will be delivered at Whitfield, the following air quality recommendations from our previous assessment should be taken forward in order to minimise adverse air quality effects on the other European sites covered by this assessment:

- Policy DM15 should be strengthened to make specific reference to the need to alleviate pressure on the A2 in the vicinity of Lydden to Temple Ewell Downs SAC, or Dover to Kingsdown Cliffs SAC, or A20 in the vicinity of Folkestone to Etchinghill Escarpment SAC.
- Any development that could give rise to a material increase in traffic flows on the A2 within 200m of Lydden and Temple Ewell Downs SAC or Dover to Kingsdown Cliffs SAC, or A20 within 200m of Folkestone to Etchinghill Escarpment, should be subject to appropriate assessment, including consideration of their air pollution impacts on the European site as part of the planning application.
- An application for commercial premises or a housing development of more than 10 units can be required to demonstrate that alternatives to road transport are being utilised wherever practical and will minimise the distance necessary, including the number and length of vehicle journeys;
- Where a new development will have a significant impact upon the trunk road network, it will require a transportation assessment including a travel plan. In cases where there is no extra network or infrastructure capacity, mitigation will be expected to support transportation improvements directly linked to the new development.

11.32 Given the nature of the measures available, their implementation must be accompanied by monitoring of the air quality in Lydden & Temple Ewell Downs SAC, Folkestone to Etchinghill Escarpment SAC and Dover to Kingsdown Cliffs SAC both before and for a number of years after introduction of the measures, such that further measures can be devised if the local air quality fails to improve. It is possible to predict the desired quantum of improvement by referring to the critical load (nitrogen deposition) or critical level (NOx).

11.33 As part of our previous assessment we made the recommendation that "The Council should also seek an improvement in air quality in the District so that there is a significant reduction in the number of days of medium and high air pollution by 2026". Having reconsidered this in the light of investigations elsewhere in southeast England of the considerable practical difficulties associated

with delivering such a policy, and since it would be unlikely to alter local air quality within the vicinity of the European sites considered in this assessment, such a measure is considered unnecessary and is withdrawn.

Urbanisation recommendations

11.34 An appropriately situated A2/A256 link road north of Whitfield in such a way as to draw traffic from the existing road from Temple Farm to the A256 would of course have the corollary effect of reducing the barrier that the A2 currently poses for visitors to the Lydden & Temple Ewell Downs SAC from Whitfield. While this would be slight (given the presence of an existing underpass), the risk of adverse 'urbanisation' effects (e.g. fly-tipping and arson) does increase somewhat. However, it is considered that the visitor access measures identified in the HRA of the Preferred Options Core Strategy^(vii) will not need amending to address this, although the scale of any developer contribution at Whitfield will need to be commensurately greater. The only amendment we would make would be to:

- remove the phrase '*where open space cannot be provided*' in order to render the measure applicable to all developments that could affect the European sites (i.e. the expansion of Whitfield, Connaught Barracks or development within 400m of Thanet Coast & Sandwich Bay SPA) irrespective of the provision of alternative open space; and
- insert a reference to the fact that such access management/wardening/surveillance measures would need to be designed, implemented and monitored in conjunction with the landowner and Natural England.

Water resources and water quality recommendations

11.35 Since the HRA of the Preferred Options Core Strategy was undertaken in February 2008, a Water Cycle Study has been undertaken. This study concluded that:

- Forecast flows to wastewater treatment works (WwTW) from proposed growth targets will not provide a constraint for development. Despite the high level of proposed development, relatively small increases in wastewater flows are forecast across much of the study area largely due to the expected reduction in both occupancy rates and per capita consumption.
- Drinking water for Dover is supplied wholly by groundwater sources from the underlying Chalk in Kent. Dover is located in the Agency's Stour Catchment Abstraction Management Strategy, which identifies that all the groundwater sources are over-abstracted. This means that the Agency is unlikely to permit any increase in licensed abstraction volumes for both water companies. However, provided that Folkestone & Dover Water and Southern Water are able to implement their 25 year plans^(viii), water resources should be available to supply the area in the future.

vii The recommendation was as follows: '*Policy DM20 or DM31 should allow for financial developer contributions where open space cannot be provided; in addition to assisting with recreational pressure by enabling greater management of European sites, such a policy would enable the Council to contribute to the installation of fencing, wardens, increased surveillance etc. to control the 'urbanisation' impacts of the increase in households within close proximity to Dover to Kingsdown Cliffs SAC, Lydden to Temple Ewell Downs SAC, or Thanet Coast and Sandwich Bay Ramsar site*'

viii These constitute a combination of demand management (i.e. compulsory water metering) and a series of resource expansion projects. Southern Water does not forecast the Kent Thanet zone to fall into deficit until 2028-29. It is planning to increase a transfer of potable water from its Kent Medway zone into Kent Thanet to increase its available headroom. Until 2028-29 the import will remain at 0.01MI/d but after that the import will increase to at least 3.22MI/d, increasing annually. Folkestone and Dover Water has 17 schemes planned to be implemented in the Hills zone between 2013-14 and 2034-35. These include ten resource development schemes, staggered across the planning period from 2013 and expected to generate an extra 10.56 MI/d

11.36 As a result of this further detailed study, we are able to conclude that significant adverse effects are unlikely to occur as a result of increased abstraction or deteriorating water quality from increased discharge of treated effluent. However we would make one further recommendation to maximise the likelihood that adverse effects will not occur:

- The Water Cycle Study concluded that new developments meet compliance with Code for Sustainable Homes Level 3 / 4. This is reflected in the revised Policy CP5, which states that “new residential development permitted after the adoption of the Strategy should meet Code for Sustainable Homes level 3 (or any future national equivalent), at least Code level 4 from 1 April 2013 and at least Code level 5 from 1 April 2016.” However, this level of compliance is likely to become mandatory anyway as the national standards are tightened as a result of step changes to the Building Regulations. We would therefore recommend that Dover strives to achieve a more stringent target of CSH Level 5 for water efficiency from 2010/12.
- Policy CP6 states that “Development will not be permitted unless the necessary infrastructure to support it is either already in place, or there is a reliable mechanism to ensure that it will be provided at the time it is needed”. However, this could potentially be achieved while not providing protection for European sites. As such, we would recommend that Policy CP6 is reworded to state “Development will not be permitted unless the necessary infrastructure to support it (including that necessary for the protection of European sites) is either already in place, or there is a reliable mechanism to ensure that it will be provided at the time it is needed”.

Conclusion

11.37 The overall conclusion of the amended Habitat Regulations Assessment is that the Submission Core Strategy, and in particular the associated supporting work (such as the Water Cycle Study, Dover Transport Strategy and green infrastructure planning), does remove the need for a number of the mitigation and avoidance measures that were recommended as part of the February 2008 iteration of the Habitat Regulations Assessment. However, the substantial increase in the scale of housing at Whitfield, and the incorporation of land to the west of the settlement does increase the scale of alternative natural greenspace that will need to be provided in conjunction with the development, the need for access management of the Lydden to Temple Ewell Downs SAC and the importance of taking advantage of the opportunity to deliver a link road from the A2 to the A256 around Whitfield in such a way to alleviate air quality within the vicinity of the SAC. With regard to other settlements and European sites, it was considered that some further measures are still required to provide greater assurance that adverse effects will not result.

11.38 In order to demonstrate that the Council are taking the issues raised by the HRA on board and are in the process of devising systems (particularly the Delivery Plan) in order to ensure that the recommendations are reflected in LDF-linked documents, a series of changes to the text of the final Submission Core Strategy have been made. These changes are as follows:

11.39 Paragraph 3.67 states that “*The Habitat Regulations Assessment of the two areas of urban expansion on land between Middle Deal and Sholden and at Sholden has identified that they are within 500m of part of the Thanet Coast and Sandwich Bay Ramsar site and have potential to cause significant effects on this site. The cause of the possible effects are increased recreational pressures, urbanisation pressures and impacts on water quality and abstraction. Increased recreational and urbanisation pressures will be addressed through the development of the green infrastructure network, in coordination with adjacent Districts, and through the incorporation of on-site open space. In particular, the site between Middle Deal and Sholden is more accessible to the Ramsar site but also has the potential to provide a substantial new area of open space. With regard to water issues, the Water Cycle Study has confirmed that there is sewage treatment capacity at Weatherlees Hill, the treatment plant that serves this area, and that it has scope to improve quality standards if necessary. It will be*

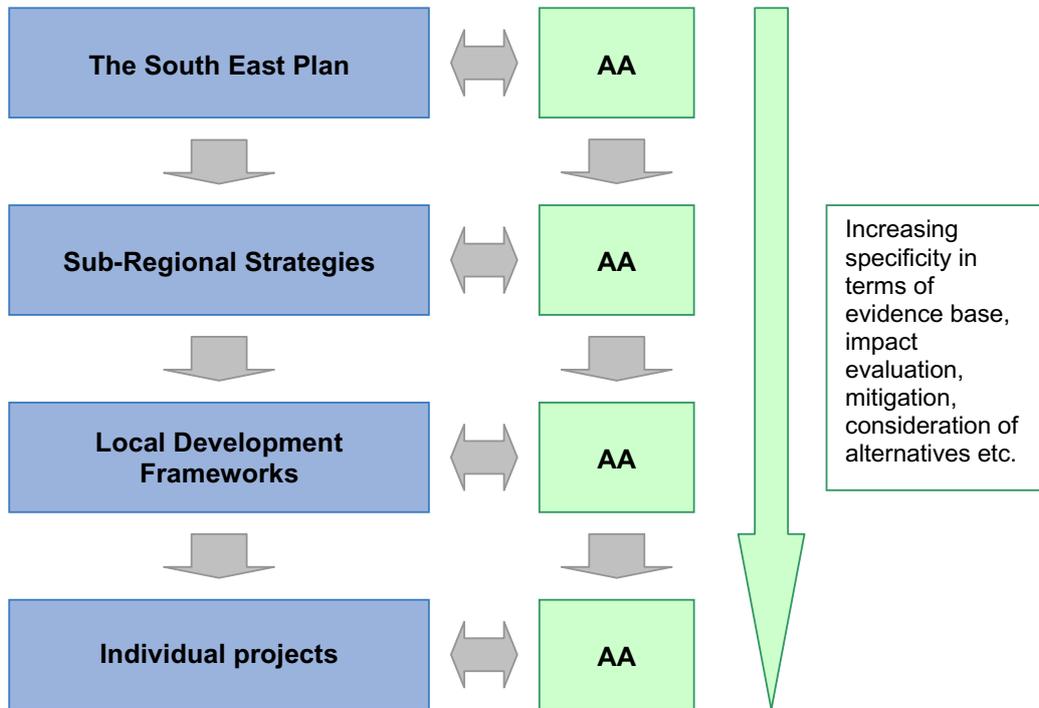
important to ensure that specific measures are incorporated to ensure that surface water run-off from both sites is controlled to avoid pollution of the water environment. These matters will all be addressed in the Site Allocations Document.”

11.40 There is now a new ‘Green Infrastructure Network’ policy, which states that “*The integrity of the existing network of green infrastructure will be protected. Development proposals that would harm the network will only be permitted if they can incorporate measures to avoid the harm arising or mitigate its effects. The Council will work with its partners to implement the proposed network improvements.*” More specific details are provided in Paragraphs 3.88-3.91 which have been inserted in response to our recommendations and state that: “*The items of green infrastructure included in the above table are derived from the proposals for the Green Infrastructure Network. Broad analysis of the network indicates that it requires improvement in terms of its condition and also strengthening through enhanced connectivity. Additional visitor management may also be required in certain areas. These improvements would help the network to accommodate the levels of development required by the Strategy. There is also a particular issue within the network to ensure that where the Strategy’s proposals are likely to have a significant effect on a Natura 2000 site(s) measures are built in to ensure that the effect is avoided or, if this is not possible, mitigated to a suitable level (see the Strategy’s Habitat Regulations Assessment). Figure 3.7 illustrates the network, the main areas where the Strategy will result in development related pressure and the parts of the network where it is proposed to make improvements. Where the likely effects arise from the Strategy’s strategic allocations measures to avoid or mitigate the likely effects are considered as part of the allocations - see Chapter 4. The Council will use its planning powers to protect the network from development that would cause harm, unless it is possible to include measures that would ensure harm is avoided or mitigated. Mitigation could include qualitative and quantitative improvements. Quantitative improvements could be achieved through the incorporation in development proposals of extensions to the network. Qualitative improvements could include financial contributions to achieve enhanced management. If this is not possible there may be circumstances in which such development would be acceptable if it included full compensatory measures. The appropriateness of this will very much depend on the specific circumstances. The Council will develop the green infrastructure network through the Delivery Plan and continue to work with its partners to implement the proposed improvements and to promote better management. For the purposes of policy CP7 the “existing network” is the network as it exists at the time of application of the policy.*”

11.41 Paragraph 4.43 regarding Connaught Barracks states that “*The Habitat Regulations Assessment of the Core Strategy has identified that the proposed development may cause a significant effect on the Dover to Kingsdown Cliffs SAC through increased recreational pressure. In order to remove this likelihood the development must incorporate management measures in the use of the playing fields and former training area, which are likely to deflect recreational pressure away from the SAC. These will need to be aimed particularly at dog walking and the appreciation of nature. These areas are of sufficient size, character and proximity to perform this function, particularly as they connect with the green infrastructure to the west and south. This should be combined with measures that will improve the biodiversity value of the former training area, including designation as a Local Nature Reserve.*”

11.42 Provided that the measures and subsequent strategies referred to in this text reflect the mitigation measures detailed in Chapter 12 of this Core Strategy, it will be possible to conclude that the Council has taken all possible steps to avoid an adverse effect on European sites as a result of the Submission version of the Core Strategy.

Appendix 1. 'Tiering' In Habitat Regulations Assessment





Appendix 2. Core Strategy Policies

1 Table 1. Core Policies and Development Management Policies within the Preferred Options version of the Core Strategy

Objective Reference	Policy	Summary
CP1	Provision for Jobs, Labour Supply and Homes	Provision for job growth of 4000, 3800 labour increase, 250,000 m ² employment land, 10000 new homes/housing by 2026
CP2	Settlement Hierarchy	Defines locations and functions of settlements in district. Dover = secondary regional centre. Deal = district centre. Sandwich = rural service centre
CP3	Employment Land	Around 250,000 square metres of employment development floorspace
CP4	Distribution of Housing Allocations	New Housing: Dover: 5,700 Deal: 1,600 Sandwich: 500 Rural: 2,200
CP5	Housing Quality and Mix	Residential development will address i. The forecast increase in the number of people aged over 65 and over 85 ii. The forecast decrease in average household size iii. The need for affordable housing Proposals at Dover should also demonstrate contribution to raising quality and market perception.
CP6	Infrastructure	Development will not be permitted unless the necessary infrastructure to support it is either already in place, or there is a reliable mechanism to ensure that it will be provided at the time it is needed.

Objective Reference	Policy	Summary
CP7	River Dour, Dover	Development proposals that affect the setting of the River Dour should, wherever possible, ensure that they create an active river frontage, improve public access and enhance wildlife interest.
CP8	Dover Wellington Dock	Planning permission for a mixed use scheme consisting of, retail (A1), restaurants and cafes (A3), drinking establishments (A4), residential (C3) and, if viable, offices (B1) and hotel (C1) at the Dover Wellington Dock area, will be permitted subject to provisos.
CP9	Mid-Town Area, Dover	The Mid Town area, is allocated for mixed use development of C3 uses (residential development), A1 uses (shops), A3 uses (restaurants and cafes), A4 (Drinking establishments), D1 (Non-residential institutions), D2 (Assembly and Leisure) and the redevelopment of South Kent College subject to provisos. Including provision of open spaces and enhanced riverside usage (including walking and cycling).
CP10	Connaught Barracks, Dover	Connaught Barracks is allocated for residential development subject to provisos including the sustainable future of a Local Nature Reserve;
CP11	Whitfield, Dover	Proposals for the expansion of Whitfield, should cover the whole of the development area. The Council will permit proposals with provisos. It must be demonstrated that there are community and environmental benefits with the Scheme.
DM1	Development Proposal conditions	<p>Proposals for development will only be permitted if they:</p> <ul style="list-style-type: none"> i. Are appropriate to their context ii. Take opportunities to enhance the distinctiveness of a place through careful design and use of materials iii. Promote social inclusion iv. Can adapt to changing circumstances v. Minimise the use of natural resources and maximise energy efficiency vi. Reduce opportunities for crime vii. Ensure adequate privacy and amenity for occupants and neighbours

Objective Reference	Policy	Summary
DM2	Maximising Density	Development proposals should maximise density provided they remain consistent with the character of their locality and can meet functional requirements.
DM3	Construction Standards	All applications for construction works should demonstrate how standards of sustainable construction that significantly exceeds the Building regulations will be reached. In addition, schemes that would create 15 or more dwellings should gain at least a very good rating under the Eco Homes certification system, or any future equivalent.
DM4	Development Boundaries	Development will not be permitted on land outside the urban boundaries and rural settlement confines shown on the proposals map unless specifically justified by other development plan policies.
DM5	Redevelopment	Permission for changes of use or redevelopment of land and buildings currently or last in use for employment purposes will only be granted if it can be demonstrated that they are no longer suitable for employment use.
DM6	New Employment Development (Rural)	<p>Permission for new employment development in the rural area or for the expansion of an existing business will be given subject to provisos.</p> <p>In all cases development should be within rural settlement confines unless it can be demonstrated that no suitable site exists.</p>
DM7	Rural Building Use	Permission will be given for the re-use or conversion of structurally sound, permanent buildings within Rural Service Centres and in Villages for employment, tourist accommodation or residential uses. Elsewhere in the rural area permission will be given for employment or tourist accommodation uses. Permission for residential use will not be given unless employment or tourist accommodation uses are demonstrated to be not appropriate or viable and the building is well related to a Rural Service Centre or a Village.
DM8	Affordable Housing	The Council will seek applications for residential developments of 15 or more dwellings to provide 30% of the total homes proposed as affordable homes and for developments under 15 homes to make a financial contribution towards the provision of affordable housing.
DM9	Rural Exception Schemes	Permission for affordable housing schemes in the rural area beyond village confines will be granted subject to provisos.

Objective Reference	Policy	Summary
DM10	Gypsies and Travellers	Should the need for additional gypsy and traveller accommodation be identified the Council will allocate sites to meet the need through the production of a Gypsy and Traveller Site Allocations Document.
DM11	Replacement Dwelling in the Countryside	<p>Proposals for replacement dwellings in the countryside will only be permitted if the existing dwelling is:</p> <ul style="list-style-type: none"> i. a permanent structure in lawful residential use ii. capable of continued residential use, and iii. of no architectural or historic value and its replacement: <ul style="list-style-type: none"> i. will not harm the character of the countryside ii. is appropriate in its siting, scale and site coverage having regard to the existing dwelling, and iii. is appropriate in its style, form and use of materials
DM12	Accommodation for Dependent Relatives	<p>Accommodation for dependent relatives will only be permitted if:</p> <ul style="list-style-type: none"> i. it is designed and located so as to revert to single family accommodation as part of the main dwelling once the use has ceased ii. it is of a size and design appropriate to the needs of the intended occupant
DM13	Accommodation for Dependent Relatives	<p>Self-contained temporary accommodation for dependent relatives will only be permitted if:</p> <ul style="list-style-type: none"> i. a need can be established ii. it would not be practicable to extend the main dwelling on the site iii. it would be of a size appropriate to the needs of the intended occupant iv. the temporary accommodation would not adversely affect the character of the area

Objective Reference	Policy	Summary
		v. there would be no loss of amenity to local residents
DM14	Residential Institutional Buildings	Permission for residential institutions will be given subject to provisos.
DM15	Location of Development and Travel Demand	Development that would generate travel will not be permitted outside the urban boundaries and rural settlement confines unless justified by development plan policies. Development that would generate high levels of travel will only be permitted within the urban areas in locations that are, or can be made to be, well served by a range of means of transport.
DM16	Roadside Services	Permission will not be given for new roadside services sites. Proposals for additions and extensions to existing sites on the primary road network will be permitted provided that they would serve an identifiable need.
DM17	Telecommunications	<p>Proposals for telecommunications development will be permitted subject to provisos.</p> <p>There must be no conflict with policies to protect the environment; or when such conflict does occur it must be reduced to acceptable levels through design measures.</p> <p>When such conflict cannot be resolved through design measures, there are no practicable alternatives, such as resiting or mast sharing, and there is a technical or legal requirement for a telecommunications facility that outweighs that to protect the environment. then proposals will be permitted.</p>
DM18	Protection of the Countryside	<p>Development which would result in the loss of, or adversely affect, the countryside will only be permitted if it is:</p> <ul style="list-style-type: none"> i. justified by the needs of agriculture; or ii. justified by a need to sustain the rural economy or a rural community; and iii. it cannot be accommodated elsewhere
DM19	Landscape Character	Development that would harm the character of the landscape will not be permitted.

Objective Reference	Policy	Summary
DM20	Biodiversity and Geology	Development must avoid causing harm to biodiversity and geological interests. In addition, opportunities should be taken to restore, enhance or add to those interests through design and landscaping and/or management measures, associated with the development of individual sites.
DM21	Pollution	<p>The quality of the District's air, water and land shall be protected and where necessary improved. Proposals for development should establish whether:</p> <ul style="list-style-type: none"> i. the development site is subject to pollution and, if so, its nature and extent and the means of remediation ii. the development would be subject to pollution from an external source and, if so, its extent and nature and the means of dealing with it in a way that can allow the development to proceed iii. the development would cause pollution either on or off site and, if so, how this would be controlled within acceptable levels.
DM22	Groundwater Source Protection Zones	<p>Within Groundwater Source Protection Zones, the following will not be permitted in Zones 1 and 2 unless adequate safeguards against possible contamination are provided:-</p> <ul style="list-style-type: none"> i. septic tanks, storage tanks containing hydrocarbons or any chemicals, or underground storage tanks; ii. proposals for development which may include activities which would pose a high risk of contamination unless surface water, foul or treated sewage effluent, or trade effluent can be directed out of the source protection zone; iii. proposals for the manufacture and use of organic chemicals, particularly chlorinated solvents; iv. oil pipelines; v. storm water overflows; vi. activities which involve the disposal of liquid waste to land; <p>In addition, the following will not be permitted in a Zone 1 unless adequate safeguards are provided:-</p>

Objective Reference	Policy	Summary
		<ul style="list-style-type: none"> i. new graveyards or farm waste storage areas; ii. new foul or combined sewerage systems.
DM23	Ponds and Lakes	Development that would result in a loss in the quantity or quality of lake or pond water, or adversely affect the setting or nature conservation value of a lake or pond, will not be permitted.
DM24	Historic Parks and Gardens	Permission will not be given for development proposals that would adversely affect the character, fabric, features, setting, or views to and from the District's Historic Parks and Gardens.
DM25	Shopfronts	Permission for new shopfronts and alterations to existing shopfronts will only be given if the proposals respect the composition, materials and detailed design of the building and street in which they are located.
DM26	Security Shutters and Grilles	Permission for external security shutters and grilles on shopfronts and other commercial buildings will not be granted if they would detract from the character and appearance of the building and the area in which they would be located.
DM27	Town Centres and Shopping Frontages	<p>Within the ground floor of premises in the Dover and Deal primary shopping areas permission will only be given for:</p> <ul style="list-style-type: none"> i. A1, A3, and A4 uses in the Primary Shopping Frontages ii. A1, A2, A3, A4 and A5 uses in the Secondary Shopping Frontages
DM28	Town Centres and Shopping Frontages	Within the ground floor of premises in the Sandwich secondary shopping frontage permission will only be given for A1, A2, A3, A4 and A5 uses.
DM29	Local Shops	<p>Proposals for local shops or extensions to local shops will be permitted:</p> <ul style="list-style-type: none"> i. within the urban areas and in rural settlements where consistent with the Settlement Hierarchy ii. on development sites for employment uses

Objective Reference	Policy	Summary
DM30	Retention of Rural Shops and Pubs	Planning permission will only be granted for the change of use of a rural shop or pub if its loss would not harm the economic and social viability of the community that it serves or, if such harm would occur, it has been adequately demonstrated that the use is no longer commercially viable and genuine and adequate attempts to market the premises for retail purposes or as a pub (as appropriate) have failed.
DM31	Open Space and Outdoor Recreation Policies	Proposals for development that would result in the loss of open space will not be permitted unless: <ul style="list-style-type: none"> i. there is no identified qualitative or quantitative deficiency in public open space in terms of outdoor sports sites, children's play space or informal open space, or ii. where there is such a deficiency the site is incapable of contributing to making it good, or iii. where there is such a deficiency the site is capable of contributing to making it good, a replacement area with at least the same qualities and equivalent community benefit, including ease of access, can be made available, or iv. in the case of a school site the development is for educational purposes, or v. in the case of small-scale development it is ancillary to the enjoyment of the open space, and vi. in all cases except point 2, the site has no overriding visual amenity interest, environmental role, cultural importance or nature conservation value.

2. Table 2 outlines the Council's overall options for achieving a spatial strategy at the Preferred Options stage. The Council perceived Option 4 to be the "best" option, but is a long-term objective (cannot be achieved by 2026). Therefore, the Council's preferred option was Option 3.

OPTION	1	2	3	4
Summary	Low growth	Medium Low Growth	Medium High Growth	High Growth
Population	Less BUT more elderly people	2600 increase More elderly people	6700 increase Many more elderly people	15600 increase 1200 more elderly people

OPTION	1	2	3	4
Travel	Labour shortage of 9400-12400 Some increased in-commuting	Labour shortage of 6400-9500 Some increased in-commuting	Labour shortage of 3700-6700 Some increased in-commuting	No increased in-commuting 4300 more workers
Houses	6100 brownfield 3100 Dover 900 Deal 300 Sandwich 1700 Rural	8100 (including 1500 greenfield) 3600 Dover 1100 Deal 500 Sandwich 1900 Rural 900 Whitfield	10000+ (including 3400 greenfield) 3700 Dover (1800 greenfield) 1600 Deal (800 greenfield) 500 Sandwich (100 greenfield) 2200 Rural (1400 greenfield) 2000 Whitfield	14000 (including 7400 greenfield) 3700 Dover 1600 Deal 500 Sandwich 2200 Rural 6000 Whitfield
Shopping space	Increase of 40000m ²	Increase of 43000m ²	Increase of 46000m ²	Increase of 51000m ²
Comments	Reflects proposals in submitted SE Plan	Reflects SE Plan panel report recommendations	Dover Pride Regeneration Strategy	Dover Pride Regeneration Strategy but in a shorter timeframe Involves changes to A2

3 Table 3 outlines the elements of the Core Strategy that have been amended for the **Submission Stage** document

Submission Core Strategy Policies	What amendments have been made?	Need for reappraisal?
Policy CP2 – Provision for Jobs and Homes	This has changed significantly from that appraised at the Preferred Options Stage, reflecting the selection of a higher growth strategy. This Policy has also subsumed Policy CP3 from the Preferred Options stage (employment land). Housing levels are increased to 14,000 by 2026, employment space reduced to 200,000 sq m	Yes
Policy CP1 – Settlement Hierarchy	This has remained largely unchanged – still identifying that the majority of development should go to Dover, Deal and Sandwich, although Aylesham has been added as a Rural Service Centre.	No
Policy CP3 – Distribution of housing allocations	The quantity of new housing directed to Dover has increased by 4,000 to 9,700. Aylesham is separated out as an identified settlement with an allocation of 1,000. The general rural allocation is accordingly reduced to 1,200 by removing the Aylesham allocation.	Yes
Policy CP4 – Housing Quality, Mix, Density & Design	The only change that has been made is to remove a reference to commuting affordable housing monies collected in Dover to housing renewal schemes elsewhere in the Town.	No
Policy CP5 – Sustainable Construction Standards	Main amendment here is a positive one that states that “New residential development permitted after the adoption of the Strategy should meet Code for Sustainable Homes level 3 (or any future national equivalent), at least Code level 4 from 1 April 2013 and at least Code level 5 from 1 April 2016.”	No
Policy CP6 – Infrastructure	The wording of this Policy remains unchanged. The Submission Core Strategy now sets out considerably more detail regarding how this Policy will be implemented, in the form of a list of key infrastructure that is required, along with details of phasing and exact timings. However, the implications of this can be adequately picked up as part of the appraisal of Policies CP1, CP3 and CP9 Whitfield.	No

Submission Core Strategy Policies	What amendments have been made?	Need for reappraisal?
Policy CP7 – Green Infrastructure Network	New policy states that “The integrity of the existing network of green infrastructure will be protected. Development proposals that would harm the network will only be permitted if they can incorporate measures to avoid the harm arising or mitigate its effects. The Council will work with its partners to implement the proposed network improvements.”	Yes
Policy CP8 – Dover Waterfront	This Policy, although renamed, is virtually identical to Policy CP8 Wellington Docks in the Preferred Options Core Strategy. The only change to the Policy is to increase the minimum housing from 300 to 400 dwellings (the extra hundred having been deducted from the Mid-Town allocation). It is not thought that this will have any strategic sustainability implications.	No
Policy CP9 – Dover Mid Town	The only difference between this Policy and Policy CP9 Mid Town in the Preferred Options Core Strategy is that the minimum required number of dwellings has decreased from 200 to 100 (with the missing hundred having been moved to the Dover Waterfront allocation), which will not lead to any significant effects.	No
Policy CP10 – Former Connaught Barracks Complex	<p>The only difference between this Policy and Policy CP10 in the Preferred Options Core Strategy is the addition of the following two stipulations:</p> <ol style="list-style-type: none"> 1) The main vehicular access to whole of the site is restricted to the existing three access points off Dover Road and an emergency point off Deal Road 2) Improvements are made to the pedestrian and cycle connections to the development at Burgoyne Height and Guston Primary School. 	No
Policy CP11 – The Managed Expansion of Whitfield	The policy has changed significantly to allocate a greater quantity of housing and include land to both the west and east of Whitfield.	Yes

4 Development Management policies have remained largely the same.

Appendix 3 - EC Advice on AA Mitigation Measures

- List each of the measures to be introduced
- Explain how the measures will avoid the adverse impacts on the site
- Explain how the measures will reduce the adverse impacts on the site

Then, for each of the listed mitigation measures:

- provide evidence of how they will be secured and implemented and by whom;
- provide evidence of the degree of confidence in their likely success;
- provide a timescale, relative to the project or plan, when they will be implemented;
- provide evidence of how the measures will be monitored, and, should mitigation failure be identified; and
- how that failure will be rectified.

Source: European Commission, 2001

