



Medway Council Local Plan - Development Options

Habitats Regulations Assessment: Screening Report

April 2017

Medway
COUNCIL
Serving You



Contents

	Page No.
Executive Summary	
1. Introduction/context	Page 3
<ul style="list-style-type: none">• Legislative context/requirements• HRA process	
2. Medway Local Plan – Development Options	Page 6
3. HRA Screening and Assessment	Page 8
<ul style="list-style-type: none">• Scope of HRA• Identification and Characteristics of European sites within scope of HRA• Potential effects of the emerging Local Plan on European sites• Consideration of potential impacts<ul style="list-style-type: none">○ Habitat fragmentation and loss○ Disturbance○ Water resources and quality○ Air Quality	
4. Conclusions and next steps	Page 32

Executive Summary

Habitats Regulations Assessment of spatial development plans is a requirement of the Habitats Directive (92/43/EEC) as set out in the Conservation of Habitats and Species Regulations 2010. This report details the HRA Screening undertaken for Medway Council's Local Plan Development Options consultation report. This should be read in conjunction with the interim Sustainability Appraisal published in March 2017.¹

It sets out the methods, findings and the conclusions of the screening assessment.

There are a number of sites both within Medway, and in close proximity, that are designated for their environmental features as Special Protection Areas and Special Areas of Conservation, referred to as 'European sites' within the document. Therefore the council in preparing the Medway Local Plan must carry out a Habitats Regulation Assessment (HRA) to determine if the plan, its proposals or policies, would adversely impact the integrity of the designated European sites, either alone, or in combination with other plans and programmes.

The council has published a Development Options consultation document that sets out a draft vision and strategic objectives for the new Medway Local Plan, together with alternative scenarios for meeting the area's development needs, and policy approaches.

This report firstly identifies the sites within the scope of the HRA, and their features, including pressures and threats to their condition. The sites identified are:

- Medway Estuary and Marshes SPA and Ramsar site
- Thames Estuary and Marshes SPA and Ramsar site
- North Downs Woodland SAC
- Peters Pit SAC
- Queendown Warren SAC
- The Swale SPA and Ramsar site

The report then considers the potential effects of the emerging Local Plan on the European sites. Four main areas of potential impact are assessed: habitat fragmentation and loss; disturbance; water resources and quality; and air quality.

The report outlines how emerging policy and proposals in the Local Plan Development Options document may impact on the integrity of the designated sites, and the measures considered in the emerging Local Plan to avoid and mitigate adverse effects.

The assessment concludes that there is no specific identified adverse impact arising from the proposals and draft policy approaches in the Development Options consultation document, but that there are a number of areas where potential impacts are uncertain, as this is an early stage of plan preparation, and development allocations and policies are not yet determined. The council recognises that further work is needed in assessing potential sites to identify its preferred

¹ Available to view at: www.medway.gov.uk/futuremedway



development strategy and drafting of policies to ensure that adverse impacts on the integrity of the European sites are avoided and mitigation measures put in place, as appropriate. Medway Council is seeking the advice of statutory consultees, including Natural England and the Environment Agency, and wider environmental organisations, on the methodology and assessment of potential effects arising from the emerging Local Plan set out in this report. The council will take account of this advice in preparing further iterations of the Habitats Regulation Assessment to inform the subsequent stages of plan making.



1. Introduction

- 1.1 Medway Council is preparing a new Local Plan to guide the area's growth up to 2035. The aim of the Local Plan is to ensure that Medway grows sustainably, to provide land for the homes, jobs and services that people need, whilst protecting and enhancing the qualities of the area's environment and heritage. Once adopted the new Local Plan will replace the saved policies in the Medway Local Plan, 2003.
- 1.2 The council has produced a Development Options Regulation 18 document for consultation in early 2017. This presented emerging approaches to how development could take place and set out a direction for policies.

The requirement for Habitats Regulation Assessment of Development Plans

Legislation

- 1.3 In preparing a new Local Plan for Medway, the council must carry out a Habitats Regulation Assessment, to ensure that due consideration is given to sites protected for their nature conservation importance by European policy. Medway has a number of such sites both within its boundary and in close proximity to the borough in the estuaries and marshes, and the Kent Downs.
- 1.4 The Conservation of Habitats and Species Regulations (2010, and as amended in 2012) - the Habitats Regulations - require that a Habitats Regulation Assessment (HRA) is applied to all statutory land use plans in England and Wales. The HRA concerns the assessment of the potential effects of a development plan on European sites, including Special Protection Areas and Special Areas of Conservation.
- 1.5 The Habitats Regulations transpose the requirements of the European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna [the Habitats Directive] which aims to protect habitats and species of European nature conservation importance. The Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which are designated under European Directive (2009/147/EC) on the conservation of wild birds [the Birds Directive]. In addition, Government guidance also requires that Ramsar sites (which support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance [Ramsar Convention]) are included within the HRA process as required by the Regulations. For ease of reference, Ramsar sites are included under the term 'European site' in the HRA, despite being at a wider international level.
- 1.6 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the designated European site. The process of HRA is based on the precautionary principle. Evidence should be presented to allow a determination of whether the impacts of a land-use plan, when considered in combination with the effects of other plans and projects against the conservation objectives of a European Site; would adversely affect the integrity of that site. Where effects are considered uncertain, the potential for adverse impacts should be assumed.



Process

1.7 The council has referred to guidance and best practice in conducting a Habitats Regulation Assessment on the emerging Medway Local Plan. The process of conducting a HRA involves three stages:

- **Stage 1:** Screening for Likely Significant Effect
- **Stage 2:** Appropriate Assessment, Ascertaining Effects on Integrity
- **Stage 3:** Mitigation Measures and Alternatives Assessment.

Table 1: Habitats Regulations Assessment: Key Stages	
Stages	Habitats Regulations Assessment
Stage 1: Screening for Likely significant Effects	1. Identify European sites in and around the plan area.
	2. Examine the conservation objectives of each interest feature of the European site(s) potentially affected.
	3. Analyse the policy/ plan and the changes to environmental conditions that may occur as a result of the plan. Consider the extent of the effects on European sites (magnitude, duration, location) based on best available information.
	4. Examine other plans and programmes that could contribute (cumulatively) to identified impacts/ effects.
	5. Produce screening assessment based on evidence gathered and consult statutory nature conservation body on findings.
	6. If effects are judged likely or uncertainty exists – the precautionary principle applies. Proceed to Stage 2 .
Stage 2: Appropriate Assessment	1. Agree scope and method of Appropriate Assessment with statutory nature conservation body.
	2. Collate all relevant information and evaluate potential impacts on site(s) in light of conservation objectives.
Stage 3: Mitigation Measures and Alternatives Assessment	1. Consider how effect on integrity of site(s) could be avoided by changes to the plan and the consideration of alternatives (e.g. an alternative policy/ spatial location). Develop mitigation measures (including timescale and mechanisms for delivery).
	2. Prepare HRA/ AA report and consult statutory body.
	3. Finalise HRA/AA report in line with statutory advice to accompany plan for wider consultation.

1.8 The process is seen as iterative and it is generally considered that work at Stages 1 and 2 will help to ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. If alternative solutions or avoidance/ mitigation measures to remove adverse effects on site integrity cannot be delivered then guidance recommends an additional stage to consider Imperative



Reasons of Overriding Public Interest (IROPI) for why the plan should proceed. For the HRA of land use plans IROPI is only likely to be justified in a very limited set of circumstances and must be accompanied by agreed, deliverable compensation measures for the habitats and species affected.

- 1.9 This report is an initial assessment of the potential for the emerging Medway Local Plan to have likely adverse impacts on the designated European sites identified within the scope of the HRA. This initial screening and high level assessment of potential impacts is published for comments in association with the consultation on the Medway Local Plan Development Options document. As the Local Plan is at an early stage of preparation, this assessment is proportionate to the level of detail contained in the Development Options document and acknowledges where further work will be needed in determining preferred development allocations and policies. The council will take account of advice and comments received in relation to this HRA and will carry out further assessments to inform subsequent stages of the plan making process.



2. The emerging Medway Local Plan – Development Options

- 2.1 The Medway Local Plan Development Options report was published in January 2017 for consultation as a preparatory stage in producing the new development plan to guide the area's growth up to 2035.
- 2.2 Medway is a complex area. It is one of the largest urban areas in the south east, and is projected to grow by c 20% over the plan period to 330,200 people by 2035. However this large urban area sits within a landscape of important natural environments, notably the Medway, Thames and Swale estuaries and marshes, and to the south, the Kent Downs. The environmental importance of these landscapes is recognised in formal designations, including some European sites.
- 2.3 The Development Options consultation document sets out the scale of development needed in Medway for homes, jobs, retail land and supporting services and infrastructure, together with recognition of the area's important natural and historic environments. The high rate of growth projected for Medway and the significant constraints to development present challenges in determining a sustainable strategy for the area's future.
- 2.4 The Development Options document sets out a draft vision for Medway's growth, underpinned by strategic objectives for the plan. Four potential approaches to meeting development needs are presented for consultation:
- Maximising urban regeneration opportunities
 - Supporting suburban expansion at a significant scale
 - Promoting development in the rural area on the Hoo Peninsula
 - Securing urban regeneration and a rural town
- 2.5 Policy approaches are set out under the broad themes of:
- Housing
 - Employment
 - Retail and Town Centres
 - Natural Environment and Green Belt
 - Built Environment
 - Health and Communities
 - Infrastructure
 - Sustainable Transport
 - Minerals, Waste and Energy
- 2.6 An interim Sustainability Appraisal² (SA) has been produced to consider the impacts of the potential options for development, and the policy approaches. The SA process has identified a number of opportunities for mitigation to minimise negative impacts and enhance the positive impacts of development. This interim SA provides a more detailed consideration of the potential effects of the emerging Local Plan.

² Available at: <http://www.medway.gov.uk/pdf/INTERIM%20SUSTAINABILITY%20APPRAISAL%20REPORTfinal.pdf>



- 2.7 At this stage of the plan preparation, comments are sought on which development options and policy approaches would represent the most sustainable strategy. The development scenarios reflect broad locations and approaches and are not site specific. This HRA focuses on the potential for likely significant adverse impacts arising from the development scenarios. The findings of this HRA will be used to inform further work in preparing the draft plan, identifying where development should be avoided and measures that can be used to mitigate against negative impacts.
- 2.8 In preparing this initial HRA and screening for the emerging Medway Local Plan, reference was made to technical work carried out in 2011 by Enfusion on behalf of Medway Council for the HRA³ that informed the draft Medway Core Strategy, subsequently withdrawn. Although the 2011 HRA is dated and related to specific proposals in the draft Core Strategy, it provides useful evidence in relation to potential pathways of effects on European sites, particularly as it was subject to consultation with Natural England and other environmental bodies.

Other plans and programmes

- 2.9 The council must have regard to the potential for the emerging Local Plan to have adverse impacts on the European sites, in combination with effects from other plans and programmes. A key consideration for the emerging Medway Local Plan is the scale of development needs identified for the area over the plan period. Neighbouring boroughs are also projected to grow significantly. The 'in combination' impact of development could damage the protected features of the European sites. The council works with neighbouring local planning authorities and statutory bodies under the Duty to Cooperate on cross boundary strategic issues. The protection of the natural environment of the European sites is identified as a cross boundary strategic issue.
- 2.10 In preparing this initial HRA, Medway Council has referred to the assessments carried out for Local Plans in neighbouring authorities and key programmes and management plans. The key plans and programmes considered for potential for 'in combination' effects are noted below:

Swale Borough Local Plan – Main Modifications, 2016
Gravesham Local Plan Core Strategy, September 2014
Maidstone Borough Local Plan - Main Modifications, March 2017
Tonbridge and Malling Borough Council Local Plan – Issues and Options, September 2016
Dartford Borough Council – Core Strategy, 2011 and Development Policies Plan – Proposed modifications, 2016
Kent Local Transport Plan 3, 2011 and emerging LTP4, 2016
Kent Minerals and Waste Local Plan 2016
South East Water – adopted Water Resources Management Plan, July 2014
Southern water – adopted Water Resources Management Plan, October 2014
Environment Agency and Defra – River Basin Management Plan Thames River Basin District, December 2009

³ Available at: <http://www.medway.gov.uk/pdf/HRA%202011.pdf>

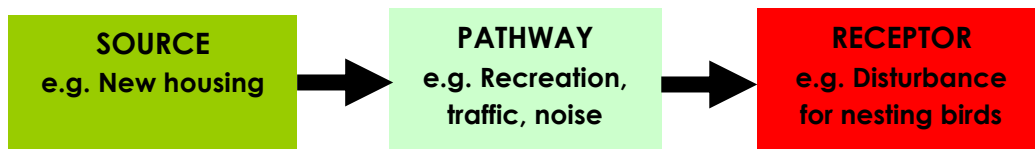


3. HRA Screening and Assessment

Scope of HRA

- 3.1 The aim of the screening stage of the HRA is to assess if the options and proposals in the emerging Medway Local Plan are likely to have a significant effect on an European site, and whether in the light of available avoidance and mitigation measures, an Appropriate Assessment is necessary.
- 3.2 It is recognised that a development plan can have implications extending beyond the boundary of the plan area. In considering impacts on European sites, distance is not the only factor. Other factors such as inaccessibility/remoteness, the prevailing wind direction, river flow direction, and ground water flow direction will all have a bearing on the relative distance at which an impact can occur. A ‘source-pathway-receptor’ approach is useful in identifying the European sites within the scope of the HRA.

Figure 1: Source, Pathway, Receptor Model



- 3.3 The following sites that lie both within and outside of the Medway area are scoped into the HRA screening for the emerging Local Plan.

Table 2: European Sites within HRA Scope	
European Sites within Plan Area	Designation
Medway Estuary & Marshes	SPA/ Ramsar
Thames Estuary & Marshes SPA/Ramsar	SPA/ Ramsar
North Downs Woodland	SAC
European Sites outside Plan Area	Designation
Peters Pit SAC	SAC
Queendown Warren SAC	SAC
The Swale SPA/Ramsar	SPA/ Ramsar



Identification and Characteristics of European sites within scope of HRA

Further details on the features of the European sites considered within this HRA are set out below.

Medway Estuary & Marshes SPA and Ramsar site	
Site area	4686.36 ha (SPA) 4969.74ha (Ramsar)
Site description	<p>The Medway Estuary feeds into and lies on the south side of the outer Thames Estuary in Kent, south-east England. It forms a single tidal system with the Swale and joins the Thames Estuary between the Isle of Grain and Sheerness. It has a complex arrangement of tidal channels, which drain around large islands of saltmarsh and peninsulas of grazing marsh. The mud-flats are rich in invertebrates and also support beds of Enteromorpha and some Eelgrass <i>Zostera</i> spp. Small shell beaches occur, particularly in the outer part of the estuary. Grazing marshes are present inside the sea walls around the estuary. The complex and diverse mixes of coastal habitats support important numbers of waterbirds throughout the year. In summer, the estuary supports breeding waders and terns, whilst in winter it holds important numbers of geese, ducks, grebes and waders. The site is also of importance during spring and autumn migration periods, especially for waders.</p>
Conservation objectives	<p>The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> • the extent and distribution of the habitats of the qualifying features • the structure and function of the habitats of the qualifying features • the supporting processes on which the habitats of the qualifying features rely • the populations of qualifying features • the distribution of qualifying features within the site.
Pressures and threats	<p>Public access to site/disturbance Invasive non-native species Changes in abiotic and biotic conditions Modification of cultivation practices Annual and perennial non-timber crops</p>

Thames Estuary & Marshes SPA and Ramsar site	
Site area	4938.94 ha (SPA) 5588.59ha (Ramsar)
Site description	<p>The Thames Estuary and Marshes SPA is located on the south side of the Thames Estuary in southern England. The marshes extend for about 15 km along the south side of the estuary and also include intertidal areas on the north side of the estuary. To the south of the</p>



	<p>river, much of the area is brackish grazing marsh, although some of this has been converted to arable use. At Cliffe, there are flooded clay and chalk pits, some of which have been infilled with dredgings. Outside the sea wall, there is a small extent of saltmarsh and broad intertidal mud-flats. The estuary and adjacent grazing marsh areas support an important assemblage of wintering waterbirds including grebes, geese, ducks and waders. The site is also important in spring and autumn migration periods.</p>
Conservation objectives	<p>The site's conservation objectives apply to the Special Protection Area and the individual species and / or assemblage of species for which the site has been classified (the "Qualifying features" listed below). The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> • the extent and distribution of the habitats of the qualifying features • the structure and function of the habitats of the qualifying features • the supporting processes on which the habitats of the qualifying features rely • the populations of the qualifying features • the distribution of the qualifying features within the site.
Pressures and threats	<p>Outdoor sports and leisure activities, recreational activities Invasive non-native species Changes in abiotic and biotic conditions Modification of cultivation practices Grazing Annual and perennial non-timber crops Improved access to site/disturbance Interpretative centres</p>

North Downs Woodland SAC	
Site area	287.58 ha
Site description	<p>The site consists of mature beech forests (<i>Asperulo-Fagetum</i>) and also yew (<i>Taxus baccata</i>) woods on steep slopes, with scrub and small areas of unimproved grassland on thin chalk soils. The stands lie within a mosaic of scrub and other woodland types and are the most easterly of the beech woodland sites selected.</p> <p>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>) for which the area is considered to support a significant presence. This is considered to be one of the best areas in the United Kingdom for the beech forests and yew (<i>Taxus baccata</i>) woods of the British Isles.</p>



Conservation objectives	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Feature, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of the qualifying natural habitats • The structure and function (including typical features) of the qualifying natural habitats and; • The supporting processes on which the qualifying natural habitats rely.
Pressures and threats	<p>Forest and Plantation management & use Outdoor sports and leisure activities, recreational activities Air pollution, air-borne pollutants Invasive non-native species Modification of cultivation practices Grazing</p>

Peter's Pit SAC	
Site area	28.3 ha
Site description	Peter's Pit is an old chalk quarry situated in the North Downs in north Kent, with large ponds situated amongst grassland, scrub and woodland. The ponds have widely fluctuating water levels and large great crested newt populations have been recorded breeding here.
Conservation objectives	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.
Pressures and threats	None identified at present

Queendown Warren SAC	
Site area	14.28 ha
Site description	Queendown Warren consists of grassland (<i>Bromus erectus</i>) and contains an important assemblage of rare and scarce species, including early spider-orchid (<i>Ophrys sphegodes</i>), burnt orchid (<i>Orchis ustulata</i>) and man orchid (<i>Aceras anthropophorum</i>).
Conservation objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the



	<p>Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats • The structure and function (including typical species) of qualifying natural habitats, and • The supporting processes on which qualifying natural habitats rely. <p>The key environmental conditions that support the features of European interest are:</p> <ul style="list-style-type: none"> • Maintenance of grazing • Minimal recreational trampling • Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification • Absence of direct fertilisation • Well-drained soils
Pressures and threats	<p>Air pollution, air-borne pollutants Other ecosystem modifications Changes in biotic conditions Modification of cultivation practices</p>

The Swale SPA/Ramsar	
Site area	6514.71 ha (SPA & Ramsar)
Site description	<p>The Swale is located on the south side of the outer part of the Thames Estuary in south-eastern England. The Swale is an estuarine area that separates the Isle of Sheppey from the Kent mainland. To the west it adjoins the Medway Estuary. It is a complex of brackish and freshwater, floodplain grazing marsh with ditches, and intertidal saltmarshes and mud-flats. The intertidal flats are extensive, especially in the east of the site, and support a dense invertebrate fauna. These invertebrates, together with beds of algae and Eelgrass, are important food sources for waterbirds. Locally there are large mussel beds formed on harder areas of substrate. The SPA contains the largest extent of grazing marsh in Kent (although much reduced from its former extent). There is much diversity both in the salinity of the dykes (which range from fresh to strongly brackish) and in the topography of the fields. The wide diversity of coastal habitats found on the Swale combine to support important numbers of waterbirds throughout the year. In summer, the site is of importance for Marsh Harrier, breeding waders and Mediterranean Gull . In spring and autumn migration periods, as well as during winter, the Swale supports very large numbers of geese, ducks and waders.</p>
Conservation objectives	<p>The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p>



	<ul style="list-style-type: none"> • the extent and distribution of the habitats of the qualifying features • the structure and function of the habitats of the qualifying features • the supporting processes on which the habitats of the qualifying features rely • the populations of qualifying features • the distribution of qualifying features within the site
Pressures and threats	<p>Fishing and harvesting aquatic resources Outdoor sports and leisure activities, recreational activities invasive non-native species Changes in abiotic and biotic conditions Modification of cultivation practices Grazing Annual and perennial non-timber crops Improved access to site/disturbance</p>

Potential effects of the emerging Local Plan on European sites

3.4 The HRA considers how the proposals in the emerging Local Plan may impact upon the European sites. The potential for adverse effects is focused around four main areas of impact: habitat fragmentation and loss, water resources and quality, disturbance and air quality. These are summarised in the table below, and considered in more detail under the four main areas of potential impact.



Table 3: Housing, Employment and Infrastructure Development: Summary of Impacts and Effects on European Sites

Effects on European Sites	Impact Types
Habitat (& species) fragmentation and loss	<ul style="list-style-type: none"> ▪ Direct land take, removal of green/ connecting corridors/ supporting habitat, changes to sediment patterns (rivers and coastal locations) ▪ Coastal squeeze ▪ Introduction of invasive species (predation) ▪ Disturbance
Disturbance	<ul style="list-style-type: none"> ▪ Increased recreational activity (population increase) ▪ Noise and light pollution (from development and increased traffic)
Changes to hydrological regime/ water levels	<ul style="list-style-type: none"> ▪ Increased abstraction levels (new housing) ▪ Increased hard standing non-permeable surfaces/ accelerated run-off ▪ Laying pipes/ cables (surface & ground) ▪ Topography alteration
Changes to water quality	<ul style="list-style-type: none"> ▪ Increase in run-off/ pollutants from non-permeable surfaces (roads, built areas) ▪ Increased air pollution (eutrophication) (traffic, housing) ▪ Increased volume of discharges (consented)
Changes in air quality	<ul style="list-style-type: none"> ▪ Increased traffic movements ▪ Increased emissions from buildings

Consideration of potential impacts

Habitat fragmentation and loss

What are the issues arising from the emerging Local Plan Development Options?

- 3.5 Development proposed in the emerging Medway Local Plan and surrounding areas could lead to the loss and fragmentation of supporting habitats, i.e. those that lie outside the designated area but have an identified role to play in maintaining the overall integrity of the European sites. It is unlikely that development proposed in the emerging Local Plan will lead directly to the loss of designated habitat as policy approaches within the Development Options document divert development away from European sites and provide the highest protection to securing the ecological and landscape interests of designated SPA, Ramsar and SAC sites. The potential impact of development on supporting habitats is not fully understood at this stage and further work will be required in assessing potential development locations to identify if there are ecological features that perform a function as supporting habitat for the designated European sites.

How might the European sites be affected?

- 3.6 The loss or reduced connectivity of supporting habitats can adversely affect the designated species that rely upon them.



What is the current situation?

- 3.7 The estuarine and coastal European sites in North Kent are under threat from the potential loss and fragmentation of supporting habitat. Development along the coast through increased housing/ industrial expansion in the area can result in coastal squeeze and the subsequent loss and fragmentation of habitat. Another cause is often the development of structures that seek to protect the land and/or infrastructure from erosion and sea defences to prevent erosion and/or flooding. These and other techniques effectively 'fix' the coastline, which is particularly important where it affects habitats and ecosystems that would normally move landward in response to erosive forces. Where there is a rise in sea level relative to the land a coastal squeeze takes place.

Is there potential for adverse effects on the integrity of European sites?

- 3.8 It is unlikely that the emerging Local Plan will support development on designated European sites. The majority of the designated areas are in coastal and/or remote rural locations. Land promoted through the Strategic Land Availability Assessment (SLAA)⁴, which has been used as a reference for identifying spatial options in the Development Options consultation lies outside of the European sites. The policy approach in the Development Options document provides the highest level of protection to securing the ecological and landscape interests of designated European sites.
- 3.9 However there are a small number of potential development sites identified in the SLAA that fall within a 200m buffer of the designated areas. It is noted that there may be the potential for development to impact on supporting habitats and further assessments will be made of the ecological features to identify if there any links. This risk may be in combination with other plans, programmes and projects through land take and coastal squeeze, which are important to the designated bird species. The findings of this work will be taken into account in assessing the most sustainable locations for growth, seeking to direct development away from areas that could lead to adverse impacts on European sites.
- 3.10 The council's strategy for development seeks to make best use of previously developed land as a starting point for meeting growth needs. Generally such brownfield sites are in waterfront and town centre locations and unlikely to contain any important supporting habitat. Ecological surveys at Lodge Hill, which contains a proportion of previously developed land, have not identified the presence of any of the designated European bird species, and therefore it can be considered that the development of this site would not result in the loss of any important supporting habitats for the SPAs. No detailed survey work has been carried out for wider sites within the broad locations included in the development scenarios.
- 3.11 There are no identified impact pathways for habitat fragmentation and loss for the SACs at Queendown Warren, Peters Pit and North Downs Woodland. These are in relatively remote rural locations, away from the main urban areas.
- 3.12 The Development Options document recognises that houseboats form a small proportion of Medway's housing supply. Some of the existing houseboats are located within a designated

⁴ Available at: www.medway.gov.uk/slaa



SPA. The document does not promote the extension of houseboats, and the policy approach states that the council will seek to manage provision for houseboats in order to secure environmental benefits.

- 3.13 The Development Options policy approach to Economic Development notes the role of the strategic employment sites at Grain and Kingsnorth. Both sit adjacent to the Medway Estuary and Marshes SPA and Ramsar site. These sites have extant employment allocations and there are existing planning consents that have included Appropriate Assessments of the potential for adverse impacts on the integrity of the designated European sites. There is a risk that any expansion of the employment areas could result in the loss of designated or supporting habitats. Any changes to the employment area boundaries that may be considered through the emerging Local Plan would need to be subject to robust assessment to avoid the loss or fragmentation of designated or supporting habitats.
- 3.14 The council must make provision for the steady and adequate supply of minerals to meet local needs and contribute to regional requirements. Much of the supply is through importation of aggregates at wharves at Cliffe, Frindsbury and Grain. There is a consented scheme for land won extraction of aggregates east of Hoo St Werburgh. The Development Options document does not identify a specific need or sites for further land won minerals extraction. In taking forward the Local Plan, further work will be required to consider the need for additional minerals sites, and policy should clearly seek to direct development to areas outside of the European site boundaries and that in considering any developments, that there should be no significant adverse effects on European sites.
- 3.15 The plan must also make provision for the planning of sustainable waste management. The Development Options document does not identify any specific sites for waste management activities. In taking forward policies and allocations for waste planning, the council must take account of any impacts on land that may form part of supporting habitats to European sites.

Other Plans and Projects

- 3.16 The HRA informing the Submission draft of the Swale Local Plan did not identify any adverse impacts on habitat fragmentation or loss arising from the proposals in the draft plan. The HRA supporting the Tonbridge and Malling Local Plan Issues and Options document also screened out this area of risk, as did the HRA for the draft Maidstone Local Plan and the Gravesham Local Plan Core Strategy.

What mitigation measures are provided in the Development Options document?

- 3.16 The policy approach to Securing strong Green Infrastructure states that the council will protect the network of green infrastructure across rural and urban Medway and that the highest protection will be given to securing the ecological and landscape interests of European sites. The policy approach refers to the emerging Green Infrastructure Framework that will be used to secure connectivity and a resilient and healthy natural environment.



Further considerations/recommendations

- 3.17 In developing the Local Plan, the council could strengthen the wording of the Green Infrastructure policy to make explicit that supporting habitats to the European sites are protected, maintained and enhanced and that the plan does not permit development that could lead to the loss or fragmentation of these habitats unless it can be demonstrated that appropriate mitigation is available.

Disturbance

What are the issues arising from the emerging Local Plan Development Options?

- 3.18 Development proposed in the emerging Local Plan will increase the residential population in Medway and therefore levels of recreational activity (both water and land-based) on and around the designated sites. It also has the potential to result in increased levels of noise and light pollution through building construction /operation and activities (e.g. minerals and waste workings) through increased vehicular traffic and plant operation.

How might the European sites be affected?

- 3.19 Increased recreational activity at European sites has the potential to cause disturbance to designated habitats and species through a variety of different pathways. This could include physical disturbance through trampling of habitats as a result of increased recreation or non-physical disturbance to species through noise and light pollution as a result of increased traffic or development itself. Recreational pressures and public access to sites has been identified as a specific threat to the integrity of a number of the designated European sites within the scope of this HRA.

What is the current situation?

- 3.20 The condition of the Medway Estuary and Marshes SPA/Ramsar site, as presented in the information on its SSSI designation indicates that around 45% of the area is in unfavourable condition, as bird numbers are declining. The specific causes are not known. However the potential for adverse impacts on the integrity of the designated sites arising from recreational disturbance has been identified as a key concern in north Kent that could be a contributing factor to the decline of birdlife. Medway Council is working in partnership with neighbouring local planning authorities to implement a strategic approach to manage the impact of recreational disturbance on the European sites of the Thames, Medway and Swale Estuary and Marshes SPAs/Ramsar sites. Medway Council works in collaboration with local planning authorities in north Kent to contribute to the delivery of a strategic access mitigation scheme to address potential damage from population increases on the designated habitats of the Thames, Medway and Swale Estuaries and Marshes.



- 3.21 Research in the North Kent Bird Disturbance Study, 2011⁵ carried out in north Kent has found that there have been marked declines in the numbers of birds using the SPAs, and these have occurred at the locations with the highest levels of access. It identified that disturbance caused by the presence of people was a potential cause of the decline. A range of activities were found to create disturbance. Walking dogs off the lead had a noted impact, but also running and cycling. The adopted and emerging Local Plans in north Kent propose substantial levels of development to meet the projected growth needs for this area. It is acknowledged that both alone and in combination, such a scale of development could have a considerable impact on the three Special Protection Areas and Ramsar sites, with each new home potentially contributing to that cumulative impact.
- 3.22 The Bird Disturbance Study in 2011 identified that 75% of visits to the coast originated from within 6km. Beyond the 6km threshold there is a measurable decline in visitors coming to the coast. It was estimated that there would be 15% additional coastal recreation resulting from new housing planned in the surrounding area. The research concluded that a likely significant effect cannot be ruled out from residential developments within six kilometres of the coastal designated sites and from larger residential developments further away. This is therefore a consideration when determining planning applications.
- 3.23 Further work⁶ was commissioned on behalf of the north Kent planning authorities to develop a response to this issue. This identified that a strategic approach to management and mitigation was the most appropriate measure. The research identified a suite of strategic access, management and monitoring projects, which combine to deliver complementary and integrated measures capable of addressing a 15% increase in visitor numbers. These include wardening, development of a code of conduct, targeted activities with dog owners, management of access and site works, and ongoing monitoring.
- 3.24 The strategic package of mitigation and management measures was costed, and from this a tariff was calculated. It was recommended that the tariff should be applied to new development within 6km of the SPAs and Ramsar sites, addressing the impact from projected increases in the population of north Kent. This was established at £223.58 per new dwelling within the 6km buffer, based on an anticipated increase of 35,000 dwellings in the area. The tariff approach allows the strategic programme to respond to variations in development levels across north Kent.
- 3.25 Natural England has worked with the North Kent local planning authorities on the measures that are necessary to mitigate the effects of recreational disturbance on the protected sites

⁵ Bird Disturbance Study, North Kent 2010/11. Footprint Ecology, 2011. Available at: <http://www.medway.gov.uk/pdf/Final%20North%20Kent%20Bird%20Report.pdf>

⁶ Thames, Medway and Swale Estuaries - Strategic Access Management and Monitoring Strategy, Footprint Ecology 2014. Available at: <http://www.medway.gov.uk/pdf/Strategic-Access-and%20RecreationManagementPlan.pdf>



and has issued advice⁷ in August 2015. It advises the councils that the likely significant effect of recreational impact on the over wintering bird interest from new residential development can be screened out if an appropriate contribution is made to the provision of strategic access management measures across the north Kent marshes. This relates to development within 6km of the SPA/ Ramsar sites and applies to planning applications for development of 1 dwelling or more within this area.

- 3.26 Natural England's advice sets out further details for other categories of development, and this will be followed by the council. Other uses, including hotels / guesthouses, residential care homes / institutions and camp / caravan sites will be looked at on a case-by-case basis. Furthermore Natural England advise that large developments beyond the 6km zone could also cause impacts and these will again be considered on a case-by-case basis.
- 3.27 In advance of the adoption of the new Local Plan, Medway Council has adopted a policy position⁸ to implement a Strategic Management and Monitoring Strategy (SAMMS) to manage the risk of adverse impacts on the SPA and Ramsar sites arising from recreational disturbance generated by a population increase resulting from new development in north Kent. The council participates in the strategic SAMMS board and is the lead organisation in the partnership work.
- 3.28 The Development Options document sets out a policy approach to establish the Strategic Access Management and Monitoring scheme as a key component of the emerging Local Plan.

Is there potential for adverse effects on the integrity of European sites?

- 3.29 The risk to the estuarine and marshes SPAs and Ramsar sites arising from recreational disturbance is acknowledged as set out above.
- 3.30 Land to the north of Rainham has been identified as a potential area for growth as part of the Development Scenarios in the Development Options consultation. Although no development is proposed within the designated areas, there may be a risk arising from noise or light pollution on the Medway Estuary and Marshes SPA/Ramsar site generated from potential development in adjacent areas. Specifically the proposal for a new football stadium for Gillingham Football Club that is referenced as an option in the consultation document, and any supporting development would need careful consideration of the potential for adverse impacts on the designated sites arising from light or noise pollution.
- 3.31 At Queendown Warren there is limited parking on the site which limits the number of visitors who arrive by car at the same time to the site. Although the site is in proximity to the large urban area to the south of Medway, it lies to the other side of the M2 and this forms a

⁷ Available at: <http://www.medway.gov.uk/pdf/NKEPG%20Letter%20-%206%20August%202015.pdf>

⁸ Available at: <http://www.medway.gov.uk/PDF/Strategic%20Access%20Management%20and%20Mitigation.pdf>



significant barrier to access. There is no specific risk to the ecological features of the site identified from disturbance.

- 3.32 The Development Options scenarios include consideration of development to the east of Rainham, reflecting land identified as 'available' through the Strategic Land Availability Assessment. In carrying out the further work required to identify the most sustainable development sites for the new Local Plan, the council must give specific consideration to the risk of additional recreational pressure on the designated site at Queendown Warren.
- 3.33 The location of Peter's Pit SAC is some distance from Medway's large population centres and its location to the east of the river and south of the M2, limit its attraction as a site for visitors from Medway, and there is no development being considered in the Development Options document in proximity of the site.
- 3.34 North Downs Woodlands is composed of two separate sections, the first of which contains part of the Halling to Trottiscliffe Escarpment SSSI. The second contains part of the Wouldham to Detling Escarpment SSSI. A small proportion of the SAC near Upper Halling falls within Medway's boundary. The majority of the SAC falls within the boundaries of Maidstone Borough Council and Tonbridge and Malling Borough Council, with a small proportion also within Gravesham Borough. The condition of the units in the Halling to Trottiscliffe Escarpment SSSI that are in the SAC designation are in favourable or 'unfavourable- recovering' condition. No adverse impacts were identified arising from recreational disturbance and the work of the Valley of Visions HLF project was noted as having a positive impact on managing access and the condition of the site.
- 3.35 The Development scenarios included in the consultation document do not include options for significant development in the proximity of the North Downs Woodland SAC. Very few sites in this area were submitted through the Call for Sites process for the Strategic Land Availability Assessment, which has been used as a reference to identify possible development scenarios and broad locations. The area to the south of the M2 in Medway has a number of constraints to development, in addition to the SAC designation, including the Kent Downs Area of Outstanding Natural Beauty and the metropolitan Green Belt.
- 3.36 It is unlikely that development allocations supported in the emerging Local Plan would lead to a significant increase in the levels of recreational and urbanisation activities at this SAC, especially given the large alternative areas of woodland that are in close proximity to the designated areas.

Other plans and programmes

- 3.37 Local planning authorities in north Kent have adopted/emerging policies that promote the Strategic Access Management and Monitoring scheme in line with Natural England's guidance to mitigate the risk of adverse impacts on the estuarine European sites arising from recreational disturbance. Work on the Maidstone and Tonbridge and Malling Local Plans has not identified a likely significant adverse effect on the estuarine European sites arising from the plans' proposals. The England Coastal Path being developed by Natural England has been



subject to a HRA and aligns with NE's advice to avoid damage to the protected European sites arising from the implementation of the England Coastal Path. It is therefore concluded that the proposals in the emerging Local Plan would not lead to a likely significant adverse effect on the SPAs arising from recreational disturbance. Given the joint working with neighbouring local planning authorities, the SAMMS approach also addresses the potential for 'in combination' impacts.

- 3.38 There is limited growth proposed either in the emerging Medway Local Plan, or in neighbouring Local Plans in the proximity of the SACs scoped into this report. The HRA reports for neighbouring authorities concluded that there would be not be likely significant adverse impacts arising from recreational disturbance. It is considered that the residual effects of other plans and programmes (in particular the Gravesham, Maidstone and Tonbridge and Malling Local Plans) will not make the potential 'in combination' effects of proposals emerging from the Medway Local Plan significant.

What mitigation measures are provided in the Development Options document?

- 3.39 As outlined above, the SAMMS scheme provides an acknowledged mitigation mechanism, endorsed by Natural England, to address the potential for adverse impacts on the Thames, Medway and Swale estuary and marshes SPA and Ramsar sites. The council intends to embed this policy in the emerging Medway Local Plan.
- 3.40 The wider Green Infrastructure policy seeks to secure the provision of open space resources, which will help to accommodate recreational activities away from sensitive European sites. The policy approaches in the Development Options consultation document for marine based recreation and tourism and access specify the need to safeguard the natural environment and identify that HRAs may be needed with specific development proposals.

Further considerations/recommendations

- 3.41 In progressing the Medway Local Plan in identifying development allocations, the council will give further attention to assessing the potential for disturbance on designated sites and supporting habitats, and strengthen policy wording to ensure that adverse impacts on the European sites arising from disturbance are avoided.

Water resources and Quality

What are the issues arising from the emerging Local Plan Development Options?

- 3.42 The Development Options document identifies the requirements for housing, employment and retail land to meet Medway's development needs over the plan period. This scale of development has the potential to act either alone or in combination with development proposed in surrounding areas through increased levels of abstraction to provide water supply; increased pressure on sewerage capacity and increased surface water run-off.

How might the European sites be affected?

- 3.43 Increased abstraction has the potential to lead to reduced water levels, which can have adverse effects on the integrity of water dependent European sites. Changes to water levels



can impact river flow and water quality, which can adversely affect water dependent habitats and the species that rely upon them. Increased waste water discharges (consented) and surface water run-off (which can transfer pollutants to water bodies) have the potential to reduce water quality, which can also have adverse effects on designated habitats and species.

What is the current situation?

- 3.44 Rivers within Medway are assessed to have moderate water quality, measured on their ecological, biological and chemical contents. Two water companies operate within Medway, with Southern Water providing the supply to the majority of the borough and South East Water supplying the Halling area. 75% of the water supply in Medway is from ground water and 25% from rivers. Reservoirs outside of Medway (Bewl Water) also contribute to local water supply. Medway is in an area of severe water stress. Waste water within Medway is treated by Southern Water at eight locations across Medway. Facilities at Whitewall Creek also serve part of Gravesham, and at Motney Hill, parts of Swale borough.
- 3.45 Southern Water's Water Resources Management Plan 2015-2040 has explicitly considered housebuilding and population growth in its operating area over the next 25 years. It has used Census data and worked with local authorities to understand planned development in the South East and promote water efficiency in new homes. Medway is identified as one of the fastest growing areas in its region. Southern Water recognises that this growth will increase demand for water in the next 25 years and its plans ensure that it can secure sufficient supplies to meet those needs. The baseline work in the Management Plan identifies a balanced supply until 2021-22; from then until 2040 there is perceived to be a deficit (supply will drop and demand will gradually increase).
- 3.46 The Management Plan sets out water resource schemes to manage supply, including a catchment management scheme and nitrate removal plant at Gore Water Supply Works in Medway to allow it to continue taking groundwater by 2019; changes to abstraction licences in agreement with the Environment Agency; water efficiency schemes in schools and businesses; supply to South East Water from Bewl Water; and water re-use and licence trading schemes.
- 3.47 In preparing the Medway Local Plan, the council is in ongoing liaison with the water companies, to ensure that appropriate provision can be made for infrastructure, and that the emerging growth proposals can be supported. This forms part of the Duty to Cooperate on strategic cross border issues, and informs the Infrastructure Delivery Plan that forms a critical component of the Local Plan evidence base.
- 3.48 The SACs at Queendown Warren, Peter's Pit and the North Downs Woodland are not considered particularly sensitive to hydrological changes. Water quality impacts are not identified as a potential risk to the ecological features of these designated sites.
- 3.49 The condition of the Medway Estuary and Marshes SPA as presented in the SSSI assessment indicates that c 45% of the area is in unfavourable condition. However surveyors have



indicated that habitat quality is thought to be good and not the cause of declines in the bird population. The condition of the SSSI units in the Swale SPA in proximity to Medway are in favourable condition.

Is there potential for adverse effects on the integrity of European sites?

- 3.50 All of the identified European sites are sensitive to changes in water levels and quality, in particular European sites with water dependent interest features. Sufficient levels of freshwater inputs are important to the designated species and habitats. Development proposed in the emerging Medway Local Plan and surrounding areas will increase abstraction levels which has the potential to result in reduced water levels. Development proposed in the emerging Medway Local Plan and surrounding areas will also increase pressure on sewerage capacity and increase levels of surface water run-off, which can result in reduced water quality. Effluent discharges can contain contaminants which build up in the food chain and can have toxic effects on organisms. They can also contain non-toxic contaminants, such as oxygen-depleting substances and nutrients. Eutrophication of water based habitats can lead to the excessive growth of planktonic or benthic algae, which is caused by increased nutrient inputs originating from sewage or agricultural run-off. Medway Estuary & Marshes SPA/Ramsar, Thames Estuary & Marshes SPA/Ramsar and The Swale SPA/Ramsar are designated for a number of important bird species that rely upon a range of wetland habitats (e.g. estuaries, mudflats and saltmarsh). Water quality is an important factor in maintaining the plant and animal communities, which support the important bird populations by providing feeding, nesting and roosting areas.
- 3.51 Any applications for new abstraction licences are assessed by the Environment Agency (EA) through the Review of Consents process to ensure that adverse impacts on internationally important nature conservation sites do not occur. If the assessment of a new application shows that it could have an impact on a European site the EA follows strict rules in setting a time limit for that license. This ensures that water levels at European sites do not fall below critical levels. This could involve the issue of a license with conditions attached, such as a 'Hands-Off Flow' condition. This specifies that if the flow or level in the river drops below that which is required to protect the environment, the abstraction must stop. The EA also has a duty to assess the effects of consented discharges to address the potential for impacts on internationally important nature conservation sites. This regulated process serves to protect European sites.
- 3.52 It is not considered that there is an identified adverse effect on the water resources of the designated sites arising from the emerging Medway Local Plan, given the measures that are in place to address water supply and ongoing work with providers.

Other plans and programmes

- 3.53 The Southern Water 'Water Resources Management Plan' has also been subject to a Habitats Regulations Assessment and it has been concluded that the plan, either alone or in combination with other plans and projects, will not adversely affect the integrity of the designated sites.



- 3.53 The HRAs for the Swale draft Local Plan concluded that the plans would not have a likely adverse impact on the SPAs through reduced water levels and quality.

What mitigation measures are provided in the Development Options document?

- 3.54 In addition to the safeguards of the consenting regime, the emerging Local Plan should also seek to put policy measures in place to provide mitigation to protect the integrity of the European sites from the potential impacts of proposed development on water levels and quality.
- 3.55 The draft strategic objectives for the emerging Local Plan set out in the Development Options document include the aim ‘to ensure the effective management of natural resources’, and that ‘development is supported by the timely provision of good quality effective infrastructure’.
- 3.56 The policy approach to securing strong Green Infrastructure provides the highest protection to securing the ecological and landscape interests of European sites.
- 3.57 The policy approaches in the consultation document recognise specific issues for water quality associated with houseboats, many of which are located at sites in or close to the SPA. The policy approach identifies the need to specify criteria under which any further growth of houseboats would be allowed in order to minimise impact.
- 3.58 The policy approach for visitor accommodation recognises the role of water based tourism in the Medway area, and sets out the principle that proposals should avoid negative impacts on the environment. The policy approach for marinas and moorings states that proposals will only be permitted where it would not have a significant adverse impact or result in unacceptable environmental consequences and notes that a detailed HRA may be required. The policy approach for transport and the River Medway states that marine leisure activities will require careful consideration with regard to the SPAs and other environmental designations, and that developments will need to adhere to the council’s policy for the North Kent Strategic Access Management and Monitoring scheme.
- 3.59 The Infrastructure section in the Development Options document notes that Medway is within an area of water stress, and that the council will need to work with utilities providers to assess the capacity to support growth, and where limits on development may need to be considered. The policy approach seeks the delivery of infrastructure to support new development.

Further considerations/recommendations

- 3.60 In preparing the draft policies for the next stage of the Local Plan, the council should provide a specific policy to secure the inclusion of Sustainable Urban Drainage schemes to support the management of water resources.
- 3.61 Attention should be given to establishing the criteria under which any further growth of houseboats would be allowed, in order to minimise impact on the environment.



- 3.62 The council must continue to liaise with water companies to ensure that the development proposed in the new Medway Local Plan can be supplied with water without requiring damaging levels of abstraction from tributaries of any European sites, and that provision is made for the effective treatment of waste water without adverse impact on the European sites, and that development will not take place until the necessary supporting infrastructure is in place. The council should consider making explicit reference to the environmental impacts of proposed growth on the utilities network in the draft infrastructure policy.
- 3.63 The draft Local Plan should provide detailed policy wording to ensure that development proposals that pose material risk or harm to the quality and/or quantity of ground waters, surface waters, wetlands or coastal water systems, either alone or in combination will not be permitted.
- 3.64 The council should consider the detail in policies for water based tourism, visitor accommodation and recreation proposals to provide greater clarity on measures to avoid negative impacts on water quality and resources that could affect the integrity of the European sites.

Air Quality

What are the issues arising from the emerging Local Plan Development Options?

- 3.65 The development needs in the emerging Local Plan indicate that the area will experience significant levels of growth over the plan period. This growth could lead to increased atmospheric pollution (local and regional), which will predominantly arise from an increase in traffic associated with the projected population growth over the life of the emerging plan. Embodied energy in construction materials and increased energy use from new housing and employment development will also contribute to increased atmospheric pollution through the emission of greenhouse gases. The construction of new development can also lead to direct effects on air quality (dust, equipment and vehicular emissions), although these are expected to be carefully regulated through development controls/ site management measures.
- 3.66 Much of this pollution is related to traffic, which may be generated by Medway's increased population, or from further afield. Atmospheric pollution from traffic is most likely to affect the habitats which comprise the qualifying features of the identified European sites, although there is the potential for designated species to also be affected, as in most cases they rely upon the designated habitats.
- 3.67 The principle forms of atmospheric pollution recognised affecting the habitats that make up the features of the designated sites within the scope of this HRA are: acid deposition, nitrogen deposition, nitrogen oxides, ammonia, ozone, and sulphur dioxide. These pollutants impact differently on distinct habitats. The designated SPAs and SACs within the scope of this HRA comprise of a variety of wetland and coastal habitats, woodland and grasslands. The SPAs are dominated by coastal saltmarsh, coastal and floodplain grazing marsh, mudflats, saline lagoons, intertidal substrate foreshore, and good quality semi-



improved grassland. The SACs have a mix of ancient and deciduous woodland, lowland calcareous grassland and freshwater habitats. The UK Air Pollution Information System (APIS)⁹ provides information on the key impacts arising from the main pollutants of concern (nitrogen and acid deposition, ammonia, ozone, sulphur dioxide and nitrogen oxides) on habitats. The APIS resource gives details of the effects, implications and risks of the key pollutants on different habitat types. The pollutants can lead to eutrophication, reduction in the richness and diversity of species, the spread of invasive species, changes in species composition and the potential loss of sensitive species.

- 3.68 Estuarine habitats are generally not considered to be particularly sensitive to air pollution effects given that they already receive high nitrogen loads in water. However, the sensitivity of qualifying features is often determined by local environmental conditions. The APIS provides information on the estimated level of deposition at broad supporting habitats used by the bird species designated as part of the SPAs being considered in this assessment. Information on atmospheric pollution at the European sites is currently limited. The APIS resource provides critical loads for acidity and nitrogen for each designated feature within every SAC and SPA in the UK, however this information is based on predictive modelling rather than from real monitoring data taken at the sites themselves. The different environmental conditions at each European site mean that the sensitivity of qualifying features to atmospheric pollution can vary between European sites.

What is the current situation?

- 3.68 Regular assessments of air quality in Medway have identified that the pollutant of most significance is nitrogen dioxide. The identified objective is 40ug.m³, however in parts of Medway this is exceeded. The key source of nitrogen dioxide in Medway is from high volumes of slow moving traffic. Transport is a significant contributor to poor air quality and its associated health problems as evidenced by Medway's 3 declared Air Quality Management Areas (AQMAs) associated with congestion in central urban areas. The main source of air pollution in the district is road traffic emissions from major roads, notably the M2 Motorway and the A2 trunk road, together with a network of subsidiary routes (A228, A230, A231, A278 and A289). Medway's population growth in recent years has been accompanied by an above average increase in vehicular traffic levels.
- 3.69 As a gateway to the continent, Kent & Medway's extensive transport network also carries a disproportionate number of HGVs, with their associated carcinogenic diesel emissions. A proportion of the particulate matter present in Kent is from non-local sources, notably London and transport from mainland Europe. Easterly winds can also bring pollution, from continental sources, which affect the whole of Kent and Medway raising levels of particulate and/or ozone; whilst winds from the opposite westerly direction can bring London's urban pollution plume drifting across western Kent. The non-local origins of this particulate matter makes it difficult to achieve a significant reduction in ambient concentrations at a local level. The Medway Local Plan can have limited control over diffuse air pollution, and it is generally accepted that this matter is most appropriately addressed at a national or regional level

⁹ See: <http://www.apis.ac.uk>



where a strategic approach can be taken. Diffuse air quality issues are therefore not considered in further detail in this report.

- 3.70 Monitoring information has shown that although there have been improvements in Nitrogen Dioxide levels in some areas in Medway, concentrations have increased at eight monitoring sites in 2015. Measured annual mean concentrations for the past 5 years show there is a slight downwards trend in measured concentrations over this period, indicating that air quality conditions within the borough are improving. There is a downward trend in measured concentrations for particulate matter over this period, indicating that PM2.5 conditions within the area are improving. The measured concentrations are below the annual mean air quality objective at both automatic monitoring sites in 2015. The concentrations are also below the PM2.5 UK objective for 2020 (25 µg/m³ as an annual mean).
- 3.71 The council recognises that parts of Medway experience poor air quality resulting from traffic congestion. It has adopted an Air Quality Management Plan that sets out measures to reduce pollution levels, with specific actions to address the conditions in the designated Air Quality Management Areas in central Medway. The adopted Medway Air Quality Action Plan, 2015¹⁰ promotes a number of measures to reduce car usage and emissions rates.
- 3.72 APIS identifies that in the North Downs Woodlands SAC the critical load levels for nitrogen are being exceeded for the woodland qualifying features. The site lies within 200m at its closest point to the A229, which is a strategic transport route between Medway and Maidstone.

Is there potential for adverse effects on the integrity of European sites?

- 3.73 The scale of development needs identified in the emerging Local Plan, and neighbouring boroughs' Local Plans is anticipated to generate additional traffic, and associated emissions. Levels of primary pollutants emitted directly into the atmosphere, tend to be highest around their sources; these are usually located in urban and industrial areas. Motor vehicles are a major source of primary pollution throughout the UK, including nitrogen dioxide. Concentrations are therefore usually highest in built-up urban areas, and not in the more remote areas where the European sites within the scope of this HRA tend to be located. Currently the only pollutant that is exceeding air quality objectives in Medway is nitrogen oxide (NO_x), the impacts of which are most relevant close to source. The Development Options document acknowledges the role of Medway in strategic energy infrastructure. Conventional power generation facilities can contribute to pollution.
- 3.74 The Department for Transport has issued Transport Analysis guidance¹¹ that advises beyond 200m, the contribution of vehicle emissions to local pollution levels is not significant. This distance has therefore been used in this assessment to consider whether European sites are

¹⁰ Available at: <http://www.medway.gov.uk/pdf/Final%20Approved%20Medway%20AQAP%20December%202015.pdf>

¹¹ Available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>



likely to be significantly affected by development considered as potential options in the emerging Local Plan within this zone. European sites in close proximity (within 200m) to a major road (Motorway or A road) that are likely to see a significant increase in traffic as a result of development proposed in the emerging Local Plan and surrounding areas are North Downs Woodlands SAC (adjacent to the A249 and a portion lies within 200m of the A229), Medway Estuary & Marshes SPA/Ramsar (a portion lies within 200m of the A249), Thames Estuary & Marshes SPA/Ramsar (a portion lies within 200m of the A228) and The Swale SPA/Ramsar (a portion lies within 200m of the A249 and A299). Peter's Pit SAC and Queendown Warren SAC are not within 200m of a major road.

- 3.75 Determining the significance of this impact in relation to the integrity of European sites is extremely complex. The sensitivity of European sites to atmospheric pollutants is dependent on a range of factors including the types of habitat present and the environmental conditions at each site. This means the sensitivity of each European site is different, even if they have the same designated features. Determining the critical loads for sites (habitats) and assessing the effect of atmospheric pollution is most appropriately carried out at a site specific level. The information available on APIS indicates that a number of qualifying features are sensitive to atmospheric pollution and that critical loads in certain areas are possibly being exceeded. Whilst this may be the case, the site specific information provided by JNCC and Natural England for the European sites scoped into this HRA does not indicate that atmospheric pollution is currently having adverse effects on the qualifying features of any of the sites.
- 3.76 At estuarine sites the type of air pollution that marine and coastal habitats are most sensitive to is nitrogen deposition (atmospheric and river inputs). The North Kent estuarine ecosystem already receives high nitrogen inputs; and this, coupled with the fact that emissions are highest close to source, and that the majority of development options being considered within the emerging Local Plan indicates that it is unlikely that there will be significant adverse effects on the integrity of the estuarine European sites.
- 3.77 For the terrestrial European sites it is also considered unlikely that the emerging Local Plan alone would have adverse effects on site integrity as a result of increased atmospheric pollution. Only one of the terrestrial/freshwater sites (North Downs Woodlands SAC) is within 200m of a road that has the potential to see an increase in traffic as a result of proposed development. Less than 3.5 ha out of a total 287.58 ha (1.2 per cent) of designated habitat is within 200m of a major road and those SSSI units that make up the 3.5 ha are assessed by NE as being in a favourable condition¹². Given that such a small proportion of the SAC is within 200m of any major roads (A229 and A249) and available information on the site indicates that site level management of the qualifying features, such as grazing is the most important factor in maintaining site integrity, it is unlikely that the development proposed in the emerging Local Plan alone would have adverse effects on the integrity of the SAC through increased atmospheric pollution.

¹² Natural England: Sites of Special Scientific Interest - Wouldham to Detling Escarpment SSSI Information. Available online: [https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1001339&SiteName=north downs woodland&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=](https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1001339&SiteName=north%20downs%20woodland&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=)



3.78 Whilst effects from the plan alone are considered unlikely, it is clear that the development proposed in the emerging Local Plan will contribute to background pollution levels in combination with other plans, programmes and projects. There is uncertainty however with regard to the significance of this 'in combination' impact on the European sites. The emerging Local Plan alone cannot be expected to mitigate for the 'in combination' effects of increased background pollution on the European sites. To effectively address the issue of air quality across the wider North Kent area, and in particular, the effects on European designated sites, a strategic regional approach to air quality management is required.

Other Plans and Programmes

3.79 Medway's neighbouring authorities are also projected to grow significantly over the plan period, and it is anticipated that this growth will be associated with an increase in traffic. Kent's location between the cross channel transport links and the rest of the UK means that wider developments at a regional or national scale can also impact on traffic levels in the county, particularly on the motorway network and the key connecting roads, such as the A229, A228, A249 and A2.

3.80 The evidence base to the Development Options document recognises commuting flows between Medway and surrounding areas, which impact on local roads. The impact of traffic on air pollutants associated with development has been considered by neighbouring planning authorities in preparing their Local Plans. Medway Council has made reference to the HRAs prepared for the adjacent development plans to assess the potential for 'in combination' impacts on the integrity of the European sites.

3.81 The HRA produced for the draft Swale Local Plan identified the proximity of the Swale SPA/Ramsar site to the A249 as it approaches and crosses onto the Isle of Sheppey, and assessed the potential for impacts of traffic generated air pollutants on the adjacent habitats. Reference to APIS identified that the modelled nitrogen deposition rate in this area was 25% below the critical load. In considering the potential for the development proposed in the Swale Local Plan and in combination with other plans, including potential growth in Medway, the HRA concluded that there would be no likely significant effect associated with air quality from the Local Plan with respect to the Swale SPA/Ramsar site. No impacts arising from air pollutants were identified as risks to Queendown Warren.

3.82 The HRA screening report prepared for the Tonbridge and Malling Issues and Options report identified the potential for air borne pollution to impact on SACs that are in proximity to the A229 and M2. Although development locations being considered within the Tonbridge and Malling borough were some distance from the European sites, the potential for 'in combination' impacts was acknowledged. However the report concluded, that due to the small area of the North Downs Woodland SAC that is within 200m of a major road, that the impact was unlikely to significantly affect the conservation objectives of the designated site.

3.83 The HRA for the draft Maidstone Local Plan identified an impact pathway of air quality on the North Downs Woodland SAC, given that the Wouldham to Detling escarpment



component lies within 153m of the A229 at its closest. The assessment considered the current traffic levels and predicted growth rates over the plan period, and the resultant impact on nitrogen dioxide levels. It concluded that the growth in traffic flows over the plan period would not result in changes in nitrogen dioxide concentration or nitrogen deposition rate within the woodland of a scale that would result in a significant effect on this SAC, either alone or in combination with other projects and plans. The air quality assessment methodology and findings used in the HRA were subject to consultation with Natural England, who agreed with the findings. The potential for an impact on Queendown Warren from an air quality pathway was screened out due to distance.

- 3.84 The proposal for an additional Lower Thames Crossing to the east of Gravesend is anticipated to have impacts on traffic movements within the proximity of designated sites in the North Downs Woodland and the Thames Estuary and Marshes SPA and Ramsar site. Further work is required as part of the supporting evidence for the project development of the Lower Thames Crossing to assess the impacts on the designated European sites

What mitigation measures are provided in the Development Options document?

- 3.85 The emerging policy approach for air quality states that the council will take account of the Medway Air Quality Planning Guidance, 2016¹³, in determining planning applications. This guidance recognises that development will in the main inherently increase road transport emissions, both during the construction and operational phases. However, it is also recognised that sustainable development can be a positive force for change. The approach in this document seeks to minimise road transport emissions wherever practicable to sustainable levels, by securing reasonable emission mitigation while also seeking to counter the cumulative impacts arising from all developments. The screening checklist in the adopted guidance identifies sensitive natural environments as a criterion for consideration of an air quality assessment and/or an emissions mitigation assessment in the planning process. Medway is working strategically with the Kent and Medway Air Quality Partnership in embedding this guidance in local planning authorities across the area.
- 3.86 The emerging policy approach for Transport in the Development Options document seeks to promote sustainable choices of transport to reduce the growth of traffic and associated air pollution. It also states that development should be located and designed to enable sustainable transport. Transport Assessments and Transport Statements will be used to mitigate the impacts of new development.
- 3.87 As part of the evidence base for the Medway Local Plan, the council has commissioned a Strategic Transport Assessment. This will include an assessment of the potential impacts on air quality arising from potential development locations and approaches. The findings of this work will inform the development strategy and allocations supported in the new Local Plan.

¹³ Available at: <http://www.medway.gov.uk/pdf/Medway's%20Air%20Quality%20Planning%20Guidance.pdf>



- 3.88 The emerging policy approaches for design, housing, and infrastructure all seek sustainable development where housing is well connected to services and facilities, reducing the need to drive further afield.
- 3.89 There are no specific proposals for development within 200m of a designated site included as development options in the consultation document. In the policy approaches for energy, the council makes it explicit that any proposals for additional new power generation and energy storage capacity on the Hoo Peninsula needs to have an acceptable impact on the natural environment.

Further considerations/recommendations

- 3.90 In progressing the Local Plan policies, the council should acknowledge the impacts on the protected features of designated sites resulting from air pollution and make reference to the Air Quality Planning Guidance in the transport policy. As proposals emerge for the Lower Thames Crossing, further consideration needs to be carried out on the potential impacts, including 'in combination', on traffic movements that could affect the integrity of European sites.



4. Conclusions and next steps

- 4.1 The council has prepared this HRA as an initial stage of assessing the potential impacts of the emerging Local Plan on the integrity of the European sites, within and close to Medway. The policy approaches in the Development Options document support the protection of the European sites and therefore the development scenarios focus on locations outside of the SPAs, Ramsar sites and SACs.
- 4.2 As the emerging plan has not yet identified development allocations or confirmed the content of policy, further work will be needed to assess more detailed proposals for their potential to have an adverse impact on the integrity of the European sites.
- 4.3 Following the precautionary approach, this assessment has identified some areas of potential concern that should be subject to further assessment and where policy could be strengthened to ensure that the European sites are not damaged through the outcomes of the Local Plan, either alone, or in combination with other relevant plans and programmes.
- 4.4 The council is publishing this assessment for comments and seeking the advice of the statutory consultation bodies. It welcomes the views of wider stakeholders, so that subsequent iterations of the HRA can be informed by comments made at this stage, and establish a robust basis for protecting the integrity of the designated European sites within Medway and its surrounding area.
- 4.5 The council welcomes comments on this document up to **5pm on 30 May 2017**. Your views should be sent to the Planning Policy at Medway Council. You can contact the team in the following ways:

By email: futuremedway.gov.uk

By post: Planning Policy team
Medway Council
Regeneration, Environment, Culture and Transformation
Gun Wharf
Dock Road
Chatham
Kent ME4 4TR

