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1. Introduction

This report presents the results of a screening process to determine whether the Renewable Energy and Sustainable Construction Supplementary Planning Document (SPD) is likely to have a significant effect on any site in the Natura 2000 network, and therefore whether full Appropriate Assessment will be required. This assessment has been undertaken in consultation with Natural England.

The Natura 2000 network provides protection for sites that are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the European Union. The network consists of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). SACs are sites of European importance for nature conservation designated under the Conservation of Natural Habitats and Wild Flora and Fauna Directive (92/43/EEC). SPAs are sites of European importance for nature conservation designated under the Conservation of Wild Birds Directive (70/409/EEC). Both types can also be referred to as European Sites. Both types can also be referred to as European Sites. In accordance with the National Planning Policy Framework (para 118), Ramsar sites, or internationally important wetland habitats, have also been included in this Appropriate Assessment screening report.

The requirement to carry out Appropriate Assessment of land use plans is outlined in the Habitats Directive (92/43/EEC), and was transposed into English law in an amendment to the Habitats Regulations (SI No. 2716) in 2006. Since 2006 there have been several amendments to the Regulations and these have now been consolidated into the Conservation of Habitats and Species Regulations 2010, (as amended in 2011 and 2012).

There are three stages to the Appropriate Assessment process.

Task 1: Determining whether a plan is likely to have a significant effect on a European site. This needs to take account of the likely impacts in combination with other relevant plans and projects. This assessment should be made using the precautionary principle.

Task 2: Carrying out Appropriate Assessment and ascertaining the effect on site integrity. The effects of the plan on the conservation objectives of sites should be assessed, to ascertain whether the plan has an adverse effect on the integrity of a European site.

Task 3: Identifying mitigation measures and alternative solutions. The aim of this task is to find ways of avoiding or significantly reducing adverse impacts, so that site integrity is no longer at risk. If there are still likely to be negative impacts, the option should be dropped, unless exceptionally it can be justified by imperative reasons of overriding public interest.

This screening report contains the results of task 1 in relation to the Renewable Energy and Sustainable Construction SPD. Tasks 2 and 3 are only required if the screening stage (task 1) concludes that there is likely to be a significant impact on a European site.

Sites included in this assessment are listed in Table 1. This includes sites wholly or partly within the District and selected sites close to its boundaries. The River Waveney flows through Waveney District and into the estuary at Breydon Water, so it
is possible that any impact on water quality and flow rates could affect this site. Other sites outside the District have been included as they may be vulnerable to possible changes to groundwater, for example, or impacts on the water cycle in general.
Table 1. Natura 2000 sites covered by this screening report

<table>
<thead>
<tr>
<th>SAC name</th>
<th>SPA name</th>
<th>Ramsar name</th>
<th>Area (ha)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Benacre to Easton Bavents Lagoons</td>
<td></td>
<td></td>
<td>366.93</td>
<td>Wholly within Waveney, on the coast.</td>
</tr>
<tr>
<td>2 Benacre to Easton Bavents</td>
<td>Benacre to Easton Bavents</td>
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<td>516.83</td>
<td>Wholly within Waveney, on the coast.</td>
</tr>
<tr>
<td>3 The Broads</td>
<td></td>
<td></td>
<td>5865.6</td>
<td>Partially within Waveney. Mostly in Norfolk, but extending into northern parts of the District.</td>
</tr>
<tr>
<td>4 Broadland</td>
<td>Broadland</td>
<td></td>
<td>5462.4</td>
<td>Partially within Waveney. Mostly in Norfolk, but extending into northern parts of the District.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>5488.61</td>
<td>Partially within Waveney. Mostly in Norfolk, but extending into northern parts of the District.</td>
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<tr>
<td>6 Minsmere to Walberswick Heaths and Marshes</td>
<td>Minsmere to Walberswick</td>
<td></td>
<td>1265.52</td>
<td>Partially within Waveney. Mostly in Suffolk Coastal, but extending into southern, coastal parts of the District.</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>2018.92</td>
<td>Partially within Waveney. Mostly in Suffolk Coastal, but extending into southern, coastal parts of the District.</td>
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<tr>
<td>8</td>
<td></td>
<td></td>
<td>2018.92</td>
<td>Partially within Waveney. Mostly in Suffolk Coastal, but extending into southern, coastal parts of the District.</td>
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<tr>
<td>9 Dew’s Ponds</td>
<td></td>
<td></td>
<td>6.74</td>
<td>Outside Waveney, in Suffolk Coastal District.</td>
</tr>
<tr>
<td>10 Waveney and Little Ouse Valley Fens</td>
<td></td>
<td></td>
<td>193.18</td>
<td>Outside Waveney, in Norfolk and Suffolk.</td>
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<tr>
<td>11 Redgrave and South Lopham Fens</td>
<td></td>
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<td>127.09</td>
<td>Outside Waveney, in Norfolk and Suffolk.</td>
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<tr>
<td>12 Norfolk Valley Fens</td>
<td></td>
<td></td>
<td>616.21</td>
<td>Outside Waveney, in Norfolk.</td>
</tr>
<tr>
<td>13 Breydon Water</td>
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<td>1202.94</td>
<td>Outside Waveney, in Norfolk.</td>
</tr>
<tr>
<td>14 Breydon Water</td>
<td></td>
<td></td>
<td>1202.94</td>
<td>Outside Waveney, in Norfolk.</td>
</tr>
<tr>
<td>15 Outer Thames Estuary</td>
<td></td>
<td></td>
<td>39,3734.18</td>
<td>Coastal and Offshore – North Kent to Norfolk.</td>
</tr>
</tbody>
</table>
2. Background information - environmental features of Natura 2000 sites in and around Waveney

2.1. Benacre to Easton Bavents Lagoons SAC

Qualifying features (habitats/species)
- Coastal lagoons – one of the best areas in the UK.

Priority features
- Coastal lagoons
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)

Key environmental features that support site integrity
A series of percolation lagoons with a wide range of salinities, separated from the sea by shingle barriers. The site supports a number of specialist lagoonal species.

Vulnerability of site
The lagoons at the Denes were created through shingle extraction. Salinity is maintained through percolation and overtopping of the shingle barrier. No management input is required to maintain these lagoons. The lagoons at Benacre, Covehithe and Easton are natural and result from ponded streams behind shingle barriers. Seawater enters the lagoons through overtopping of the barriers during high tides. Natural sea level rise will lead to more frequent saltwater inundation – beneficial for some habitats but causing loss of others. Saline lagoons will migrate landward as the coastline erodes, so their existence should not be compromised in short to medium term. Management actions to reduce the rate of erosion are being addressed through the Shoreline Management Plan, and new lagoons have been created further from the coastline.
Conservation Objectives

• Subject to natural change, to maintain, in favourable condition, the lagoons.

2.2. Benacre to Easton Bavents SPA

Qualifying features (habitats/species)

• During the breeding season:
  - Bittern, *Botaurus stellaris* (5% of GB breeding population)
  - Marsh harrier, *Circus aeruginosus* (5.1% of GB breeding population)
  - Little tern, *Sterna albifrons* (0.9% of GB breeding population)

Key environmental features that support site integrity
Shingle barriers provide nesting habitat for little tern; reed beds and grazing marsh provide breeding habitat for bittern and marsh harrier.

Vulnerability of site
As above.

Conservation Objectives

• Subject to natural change, to maintain, in favourable condition, the lagoons.
• To maintain, in favourable condition, the habitats for the populations of Annex 1 species (bittern, little tern and marsh harrier) of European importance, with particular reference to:
  • shingle;
  • shallow coastal waters;
  • standing water;
  • swamp; and
  • marginal and inundation communities.
2.3. The Broads SAC

Qualifying features (habitats/species)

- Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.
- Natural eutrophic lakes with *Magnopotamion* or *Hydrochariton*-type vegetation
- Transistion mires and quaking bogs
- Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* (rare)
- Alkaline fens
- Alluvial forests with Alder, *Alnus glutinosa* and Ash, *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)
- Desmoulin’s whorl snail, *Vertigio mouliniana*  
  - one of the best places in the UK for all of the above
• Fen orchid, *Liparis loeselii*  
  - one of only 3 outstanding localities in the UK.

**Priority features**

- Alluvial forests with Alder, *Alnus glutinosa* and Ash, *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)
- Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* (rare)

**Key environmental features that support site integrity**

A mosaic of important and rare habitats, including open water, reedbeds, fens, grazing marshes and carr woodlands. These support a wide range of rare and local species of flora and fauna. The Demoulin’s whorl snail is associated with flowing and standing water and ditch systems, while the fen orchid is found on calcareous and alkaline fens.

**Vulnerability of site**

The adverse effects of management neglect and natural succession during the 20th century are slowly being reversed through conservation and other management works undertaken by a number of bodies. Sea-level rise and reduced summer flows in the northern rivers (e.g. Bure) brought about by abstraction are resulting in increasing saline intrusion into the site and generally drier summer conditions. The site also suffers from eutrophication, primarily from sewage outfalls and to a lesser degree, agriculture. Some of the sewage works in the northern rivers are now phosphorus stripping and there is a programme of mud-pumping to remove enriched material from lakes, followed by biomanipulation. Pressure from tourism and recreation is now being considered by the Broads Authority. Water Level Management Plans and the Environmentally Sensitive Area scheme are starting to raise water levels, revert arable areas back to grass and encourage sensitive management particularly of the ditches, to address problems brought about by drainage in the past. Appropriate standards of flood defence are necessary for the wetland, and works are currently proceeding under the Environment Agency Broads Strategy.

**Conservation Objectives**

- To maintain, in favourable condition, the:
  - natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation;
  - alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*;
  - calcareous fens with *Cladium mariscus* and species of the *Carex davallianae* (Davall’s sedge);
  - Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)
  - hard oligo-mesotrophic waters with benthic vegetation of *Chara spp.*;
  - transition mires and quaking bogs; and
  - alkaline fens.

- To maintain, in favourable condition, the habitats for the population of:
  - Desmoulin’s whorl snail;
  - otter; and
  - *Liparis loeselii* (Fen orchid).
2.4. Broadland SPA

Qualifying features (habitats/species)

- During the breeding season:
  - Bittern, *Botaurus stellaris* (at least 10% of GB breeding population)
  - Marsh harrier, *Circus aeruginosus* (10.2% of GB breeding population)

- Over winter:
  - Hen harrier, *Circus cyaneus* (2.9% of GB population)
  - Tundra (or Bewick’s) swan, *Cygnus columbianus bewickii* (at least 8.2% of GB population)
  - Whooper swan, *Cygnus cygnus* (1.8% of GB population)
  - Gadwall, *Anas strepera* (0.8% of population)
**Key environmental features that support site integrity**
A mosaic of important and rare habitats, including open water, reedbeds, fens, grazing marshes and carr woodlands. These support a wide range of rare and local species of flora and fauna, and support breeding and over-wintering populations of a number of protected bird species.

**Vulnerability of site**
As above.

**Conservation Objectives**
- To maintain, in favourable condition, the habitats for the populations of Annex 1 bird species (bittern, marsh harrier, hen harrier, Bewick’s swan, whooper swan, ruff, avocet, golden plover and common tern) of European importance with particular reference to:
  - open water;
  - swamp;
  - fen and fen meadow;
  - reedbed;
  - lowland wet grassland with ditches and water bodies;
  - fen meadow with ditches and water bodies; and
  - saltmarsh.

- To maintain, in favourable condition, the habitats for the populations of migratory bird species (pink-footed goose, shoveler and gadwall) of European importance with particular reference to:
  - open water;
  - swamp;
  - fen;
  - fen meadow with ditches and water bodies; and
  - lowland wet grassland with ditches and water bodies.

- To maintain, in favourable condition, the habitats of the populations of waterfowl that contribute to the wintering waterfowl assemblage of the European importance with particular reference to:
  - open water;
  - swamp;
  - fen;
  - fen meadow with ditches and water bodies;
  - lowland wet grassland with ditches and water bodies;
  - wet woodland; and
  - water bodies.
2.5. Broadland Ramsar

Qualifying features (habitats/species)

- Ramsar criterion 2 - site supports a number of rare habitats and species including:
  - Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* (Calcium rich fen dominated by great fen sedge)
  - Alkaline fens (Calcium-rich springwater-fed fens)
  - Alluvial forests with Alder, *Alnus glutinosa* and Ash, *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) (Alder woodland on floodplains)
  - Desmoulin's whorl snail, *Vertigio moulinsiana*
  - Fen orchid, *Liparis loeselii*
Habitats Regulations Screening Report for the Renewable Energy and Sustainable Construction
Supplementary Planning Document

- Otter, *Lutra lutra*
- Outstanding assemblages of rare plants and invertebrates

- Ramsar criterion 6 - species/populations occurring at international levels of importance: Tundra (or Bewick’s) swan, *Cygnus columbianus bewickii*
  - Eurasian wigeon, *Anas penelope*
  - Gadwall, *Anas strepera strepera*
  - Northern Shoveler, *Anas clypeata*
  - Pink-footed goose, *Anser brachyrhynchus*
  - Greylag goose, *Anser anser anser*

**Key environmental features that support site integrity**
A mosaic of important and rare habitats, including open water, reedbeds, fens, grazing marshes and carr woodlands. These support a wide range of rare habitats and species, including internationally important breeding and over-wintering populations of a number of bird species.

**Vulnerability of site**
As above. The site is not subject to adverse ecological change.

2.6. Minsmere to Walberswick Heaths and Marshes SAC
Qualifying features (habitats/species)

• Annual vegetation of drift lines (rare)
  - one of only 4 outstanding localities in the UK.

• European dry heaths
  - one of the best places in the UK

Priority features

• Coastal lagoons

Key environmental features that support site integrity

Deposits of shingle lying at or above mean high-water spring tides, with ephemeral vegetation cover consisting of annual or short-lived perennial species. Open, dry heathland occurs on freely-draining, acidic to circumneutral soils with generally low nutrient content. Ericaceous dwarf-shrubs dominate the vegetation.

Vulnerability of site

Dry heaths were formed through, and are dependent upon, active management. Without grazing or cutting of heather, scrub and tree invasion onto the heaths is rapid and can be extensive. Bracken can also dominate large areas if suitable management has not been undertaken over the past decade. The heathland at Minsmere forms part of a RSPB reserve. The site management plan includes actions to ensure that open heathland is maintained and areas of scrub and bracken are cleared from former heath. Part is managed as Westleton Heath Nature Reserve. Annual vegetation of drift lines is maintained through the action of natural coastal processes upon the shoreline. The requirement for management is limited and is restricted to ensuring that significant human disturbance of the vegetated shore zone does not occur. This is addressed through the RSPB visitor management plan.

Conservation Objectives

• To maintain, in favourable condition, the:
  - annual vegetation of drift lines;
  - perennial vegetation of stony banks; and
  - European dry heaths.
2.7. Minsmere to Walberswick SPA

Qualifying features (habitats/species)

- **During the breeding season:**
  - Bittern, *Botaurus stellaris* (35% of GB breeding population)
  - European nightjar, *Caprimulgus europaeus* (0.7% of GB breeding population)
  - Marsh harrier, *Circus aeruginosus* (10.2% of GB breeding population)
  - Pied avocet, *Recurvirostra avosetta* (10.4% of GB breeding population)
  - Little tern, *Sternula albifrons* (1.2% of GB breeding population)
  - Northern shoveler, *Anas clypeata* (2.3% of GB population)
  - Common Teal, *Anas crecca* (4.9% of GB population)
  - Gadwall, *Anas strepera* (3.1% of GB population)

- **Over winter:**
  - Hen harrier, *Circus cyaneus* (2% of GB population)
  - Northern shoveler, *Anas clypeata* (1% of GB population)
  - Gadwall, *Anas strepera* (1.1% of population)
  - White-fronted goose, *Anser albifrons albifrons* (1.1% of GB population)
Key environmental features that support site integrity
A complex mosaic of habitats including marsh with dykes, reedbeds, mudflats, lagoons, shingle, woodland and lowland heath. These support breeding and over-wintering populations of a number of protected bird species.

Vulnerability of site
As above. The coastline will be pushed back by natural processes, and this is being addressed in the Shoreline Management Plan. Alternative sites for reedbed creation are being sought to help offset possible future natural losses.

Conservation Objectives
• To maintain, in favourable condition, the habitats for the populations of Annex 1 species (bittern, nightjar and marsh harrier, avocet, little tern, shoveler, teal, and gadwall) and hen harrier.

2.8. Minsmere to Walberswick Ramsar

Qualifying features (habitats/species)
• Ramsar criterion 1 - site contains a mosaic of marine, freshwater, marshland and associated habitats, complete with transitional areas in between. Contains the largest continuous stand of reedbeds in England and Wales, and rare transition in grazing marsh ditch plants from brackish to fresh water.
- Ramsar criterion 2 - site supports a number of rare habitats and species including:
  - Nationally scarce plants and invertebrates.
  - A population of the mollusc *Vertigo angustior* (Narrow-mouthed whorl snail) on the Blyth estuary river walls.
  - An important assemblage of rare breeding birds associated with marshland and reedbeds, including:
    - Bittern, *Botaurus stellaris*
    - Gadwall, *Anas strepera* Common Teal, *Anas crecca*
    - Northern shoveler, *Anas clypeata*
    - Marsh harrier, *Circus aeruginosus*
    - Pied avocet, *Recurvirostra avosetta*
    - Bearded tit, *Panurus biarmicus*

**Key environmental features that support site integrity**
A complex mosaic of habitats including marsh with dykes, extensive reedbeds, mudflats, lagoons, shingle, woodland and lowland heath. These support breeding and over-wintering populations of a number of rare and protected bird species.

**Vulnerability of site**
As above. Factors affecting the site’s ecological character include erosion and coastal squeeze within the Blyth Estuary and recreational/tourism disturbance, including trampling damage to vegetated shingle and driftline communities, and disturbance of little tern nesting habitat. To mitigate erosion issues, Natural England provides advice in relation to flood and coastal protection management, which will inform the development of Estuary Strategies and second generation Shoreline Management Plans. To address recreational/tourism disturbance, Natural England will work with owners/occupiers and regulatory authorities to develop a strategy to manage visitor pressure on Suffolk vegetated shingle. These measures are likely to include temporary fencing and provision of boardwalks as well as measures to increase visitor awareness of the sensitivity of the shingle habitat (e.g. interpretation, wardening).
2.9. Dew’s Ponds SAC

Qualifying features (habitats/species)
- Great crested newt, *Triturus cristatus* - one of the best areas in the UK.

Key environmental features that support site integrity
12 farm ponds, containing exceptionally high numbers of great crested newts on a regular basis.

Vulnerability of site
The ponds and grasslands are in private ownership. The site is not vulnerable to water abstraction, flooding, diffuse agricultural pollution etc. and is in conservation management.

Conservation Objectives
- To maintain, in favourable condition, the habitats for the population of great crested newt.
2.10. Waveney and Little Ouse Valley Fens SAC

Qualifying features (habitats/species)

- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)
- Calcareous fens with *Cladium mariscus* and the species of the *Caricion davallianae* (less than 1000ha in the UK)
- Demoulin’s whorl snail, *Vertigo mouliniana* - one of the best places in the UK for all of the above.

Key environmental features that support site integrity

This site represents *Molinia caerulea* – *Cirsium dissectum* fen-meadow associated with spring-fed valley fen systems in East Anglia, where *Molinia* grassland is very rare. The *Molinia* meadows are found here in conjunction with *Schoenus nigricans* – *Juncus subnodulosus* mire and calcareous fens with *Cladium mariscus*. Where the fen-meadow is grazed it is more species-rich, with frequent southern marsh-orchid *Dactylorhiza praetermissa*. This site occurs in the East Anglian centre of distribution of calcareous fens and contains very extensive *Cladium* beds, including managed examples, as well as stands in contact zones between small sedge mire and species-poor *Cladium*. The habitat type here occurs in a different hydrological situation to the Broads – spring-fed valley fen rather than flood-plain mire. This site is one of several representing Desmoulin’s whorl snail *Vertigo mouliniana* in East Anglia. At Weston Fen populations of this snail occur in a valley fen.

Vulnerability of site

Traditionally, peat was cut for fuel, sedge and reed were harvested for thatching, and the fen meadows were mown for hay. This management declined between 1940 and 1960. Water abstraction, over-deepening of local rivers and land drainage have reduced the groundwater inputs while increasing outflows from the fens. Consequently some areas of peat have undergone periods of drying and rotting which has released nutrients into the system and allowed scrub to progressively invade the fens. Funding has been used to encourage the reintroduction of grazing, relocate one borehole, address the over-deepening of one river, and clear rotted peat and scrub.
Conservation Objectives

- To maintain, in favourable condition, the:
  - Calcareous fens with *Cladium mariscus* and the species of the *Caricion davallianae*;
  - Molinia meadows on chalk, peat, clay or silt-laden soils (*Molinion caeruleae)*;

2.11. Redgrave and South Lopham Valley Fens Ramsar

Qualifying features (habitats/species)

- Ramsar criterion 1 - The site is an extensive example of spring-fed lowland base-rich valley, remarkable for its lack of fragmentation.
- Ramsar criterion 2 - The site supports many rare and scarce invertebrates, including a population of the fen raft spider *Dolomedes plantarius*.
- Ramsar criterion 3 - The site supports many rare and scarce invertebrates, including a population of the fen raft spider *Dolomedes plantarius*. The diversity of the site is due to the lateral and longitudinal zonation of the vegetation types characteristic of valley mires.

Key environmental features that support site integrity

Redgrave and Lopham Fen is an extensive area of spring-fed valley fen in the headwaters of the River Waveney. It is the largest fen in lowland England. The site is remarkable for its lack of fragmentation. The diversity of the site is due to the lateral and longitudinal zonation of the vegetation types characteristic of valley mires, such as dry birch woodland, scrub and carr, floristically-rich fen grassland, mixed fen, wet heath and areas of reed and saw sedge. The site supports many rare and scarce invertebrates, including a population of the fen raft spider *Dolomedes plantarius*. 
Vulnerability of site
The site has been affected by dredging, eutrophication, and pollution from agricultural pesticides and fertilisers. It is hoped that catchment nutrient-loading will be investigated to address eutrophication and fertiliser pollution. However, the site is not reportedly subject to adverse ecological change.

2.12. Norfolk Valley Fens SAC

Qualifying features (habitats/species)
- Alkaline Fens
- Narrow-mouthed whorl snail, *Vertigo angustior*
- Demoulin’s whorl snail, *Vertigo moulinsiana*
  - one of the best places in the UK for all of the above.

Key environmental features that support site integrity
A variety of valley-head spring-fed fens – very rare in the lowlands. Very ancient wetlands around pingos support a rich assemblage of rare species including Demoulin’s whorl snail. A strong population of Narrow-mouthed whorl snail at Flordon Common occurs with yellow iris, which is maintained by light grazing.

Vulnerability of site
These alkaline fens are generally small in area and surrounded by intensively-farmed land. They are very vulnerable to reductions on the water table and a decrease in the volume of spring flows arising from groundwater abstraction. In recent decades scrub
and woodland has spread due to the cessation of traditional cutting and grazing management and the drying-out of the fens. These sites are now largely isolated from the rural/agricultural economy of which they were once a part, and in many instances this traditional management has become uneconomic. Management agreements and payments including through Countryside Stewardship and Environmentally Sensitive Areas, help towards the reintroduction or promotion of the continued use of traditional management. Improved understanding of the water needs of these wetlands is required and is the subject of work by the Environment Agency and Natural England. Any effects of groundwater abstraction which are identified will be addressed through appropriate licensing regimes, and the Environment Agency Review of Consents and Asset Management Plans.

Conservation Objectives
- To maintain, in favourable condition, the:
  - alkaline fens;
  - Molinia meadows on chalk, peat, clay or silt-laden soils
  - (Molinion caeruleae);
  - European dry heaths;
  - Northern Atlantic wet heaths with Erica tetralix;
  - calcareous fens with Cladium mariscus and species of the Caricion
davallianae;
  - alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion,
  Alnion incanae, Salicion alvae); and semi-natural dry grasslands and
  scrubland facies: on calcareous substrates (Festuco-Brometalia).
- To maintain, in favourable condition, the habitats for the population of:
  - Desmoulin’s whorl snail; and
  - narrow-mouthed whorl snail.
2.13. Breydon Water SPA

Qualifying features (habitats/species)

- During the breeding season:
  - Common Tern, *Sterna hirundo* (1.3% of GB breeding population)

- Over winter:
  - Tundra (or Bewick’s) swan, *Cygnus columbianus bewickii* (5.6% of population in GB)
  - Eurasian Golden Plover, *Pluvialis apricaria* (2% of GB population)
  - Pied Avocet, *Recurvirostra avosetta* (3.3% of population in GB)

- On passage:
  - Ruff, *Philomachus pugnax* (7.7% of population in GB)
Key environmental features that support site integrity
An inland tidal estuary with extensive areas of mudflats exposed at high tide – the only tidal flats on the east coast of Norfolk. Extensive areas of floodplain grassland adjacent to the tidal areas. Smaller areas of saltmarsh. These habitats support internationally important assemblages of over-wintering wildfowl.

Vulnerability of site
The Breydon Water estuary is a robust ecosystem, the most sensitive feature being the high tide roost at its northern end. However efficient drainage, recent droughts and poor water management systems have adversely affected the wet grassland part of the site (Halvergate Marshes). A Water Level Management Plan and a feasibility study to overcome the water resource problems have been completed, and it is hoped that a scheme will commence to address this. The Environmentally Sensitive Area scheme has helped to raise water levels and encouraged sensitive management, particularly of the ditches. Appropriate standards of flood defence are required for the wet grassland part of the site, works are currently underway via the Environment Agency Broads Strategy. Breydon Water and its hinterland lie within the Broads, one of the family of National Parks. As such, it is largely free from development pressures. Future pressure for development may arise around the site, associated with Great Yarmouth, but regulation of such plans is covered by the Habitats Regulations 1994.

Conservation Objectives
• To maintain, in favourable condition, the habitats for the populations of Annex 1 bird species (Bewick’s swan, avocet, golden plover, common tern and ruff) of European importance with particular reference to:
  · intertidal mudflats and estuary;
  · salt marsh; and
  · lowland wet grassland with ditches and water bodies.

• To maintain, in favourable condition, the habitats for the populations of migratory bird species (lapwing) of European importance with particular reference to:
  · intertidal mudflats and estuary;
  · salt marsh; and
  · lowland wet grassland with ditches and water bodies.

• To maintain, in favourable condition, the habitats of the populations of waterfowl that contribute to the wintering waterfowl assemblage of European importance, with particular reference to:
  · intertidal mudflats and estuary;
  · salt marsh; and
  · lowland wet grassland with ditches and water bodies.

Qualifying features (habitats/species)
- Ramsar criterion 5 - Assemblages of international importance: species with peak counts in winter, 68,175 waterfowl.
- Ramsar criterion 6 - Species/ populations occurring at levels of international importance:
  - Tundra (or Bewick’s) swan, *Cygnus columbianus bewickii*
  - Northern Lapwing, *Vanellus vanellus*
  - (5 additional species identified for possible future consideration under criterion 6)

Key environmental features that support site integrity
An inland tidal estuary with extensive areas of mudflats exposed at high tide – the only tidal flats on the east coast of Norfolk. Extensive areas of floodplain grassland adjacent to the tidal areas. Smaller areas of saltmarsh. These habitats support internationally important assemblages of over-wintering wildfowl.

Vulnerability of site
As above. The site is not subject to adverse ecological change.
2.15. Outer Thames Estuary pSPA
Qualifying features (habitats/species)
Over wintering:
Red-throated Diver *Gavia Stellata* (maximum count 6,486 individuals)

Key environmental features that support site integrity
The SPA is comprised of shallow coastal waters and areas in the vicinity of sub-tidal sandbanks that support red-throated diver prey, which includes small fish such as gadoids, sprat, herring and sand eel.

Vulnerability of site
The coastal waters and the habitats that support red-throated diver may be affected by the following activities:

- Physical loss of or damage to supporting habitat or habitat feature, including dredging or smothering with soil, siltation or abrasion.
- Visual or noise disturbance.
- Toxic contamination with pesticides, TBT, PCBs, heavy metals, hydrocarbons or radionuclides.
- Non-toxic contamination with nutrients, warmer water, sediments or changes in salinity.
- Introduction of pathogens or non native species.
- Accidental turbine strike, entanglement or bycatch.
- Extraction and removal of prey species (by commercial and recreational fishing).

Conservation objective
Subject to natural change, to maintain in favourable condition, the internationally important populations of the regularly occurring Birds Directive Annex I Species:

- Red-throated diver *Gavia Stellata* and its supporting habitats and prey species.
3. Renewable Energy and Sustainable Construction Supplementary Document

The Renewable Energy and Sustainable Construction SPD will assist with the implementation of the Development Management Policies DPD, which sets out the criteria for the management of schemes that are to be delivered through sustainable construction practices or those that propose renewable energy technologies. It will also assist with delivering the aims of the Core Strategy, which sets out in strategic terms, the Council’s overall approach to future development in the whole District, excluding the Broads Authority area. The Renewable Energy and Sustainable Construction SPD will apply to proposals across the District. It will contain detailed guidance in relation to policies DM03, DM04 and DM05 of the Development Management Policies and WEW1, WEW2 and WEW3 of the Lowestoft Lake Lothing and Outer Harbour Area Action Plan.

4. Other key plans and strategies

When considering future development in Waveney, a range of other plans and strategies has been taken into account during the preparation of the Renewable Energy and Sustainable Construction SPD, and a selection of the key documents are shown in Figure 1 below.

Figure 1. Key plans and strategies influencing the Waveney Local Development Framework
When assessing the impact of the guidance provided within the Renewable Energy and Sustainable Construction SPD on European sites, the cumulative effect in combination with these additional strategies and plans has been taken into account.

The Renewable Energy and Sustainable Construction SPD is in conformity with the Core Strategy and Development Management Policies and interprets both sets of policies at a practical level. The Renewable Energy and Sustainable Construction SPD provides additional guidance about the delivery of energy efficiency and carbon reduction measures as part of any new development. A number of key aspects of the Core Strategy originated from the East of England Plan and have already been assessed as having no impact on European sites. Therefore, no significant effects are considered to result from the Renewable Energy and Sustainable Construction SPD in combination with the Core Strategy, Development Management Policies and Site Specific Allocations.

Plans of other local authorities also need to be taken into account. Most of Waveney’s towns serve rural hinterlands outside the District, and there are no large centres of population adjacent to the boundaries where development could have a significant impact on European sites within Waveney. Issues relating to potential significant impacts associated with stand-alone schemes are addressed in the policies set out in the Core Strategy and Development Management Policies DPD.

Plans in Great Yarmouth include the Area Action Plan and the Borough Core Strategy which is currently being prepared. Similarly to Lowestoft, Great Yarmouth will be a focus for regeneration, housing, employment and retail growth in future, with development particularly directed to brownfield, waterfront sites. The neighbouring district of Mid Suffolk adopted its Core Strategy in September 2008. Suffolk Coastal District Council’s Core Strategy is currently being prepared by the Planning Inspector as part of an Examination in Public. South Norfolk’s Joint Core Strategy with Broadland District Council and Norwich City Council is currently at the examination stage.

Oulton Broad is a part of the wider Broads ecosystem. The Broads area is managed by the Broads Authority, and includes parts of six local authority areas in Norfolk and Suffolk. The Broads Authority is preparing the Local Development Framework for the Broads area, and the Broads Authority Core Strategy was adopted in September 2007.

The Renewable Energy and Sustainable Construction SPD has been informed by national planning policy, the Waveney Core Strategy and Development Management Policies in combination with the plans and strategies of other local authorities as detailed above. The cumulative impact of these has been assessed.

In conclusion, the Renewable Energy and Sustainable Construction Supplementary Planning Document provides guidance on how to deliver new development in locations that are appropriate. No new policies have been proposed. It is considered that development guided by the information in this document will not have an impact on any European site in combination with the plans and strategies of other authorities.
5. Assessment of likely effect of the Renewable Energy and Sustainable Construction SPD on Natura 2000 sites

Table 3. Likely significant impacts of the Renewable Energy and Sustainable Construction SPD

<table>
<thead>
<tr>
<th>Renewable Energy and Sustainable Construction SPD</th>
<th>Assessment of potential impact on Natura 2000 sites</th>
<th>Natura 2000 sites that could possibly be affected by Site Specific Allocation</th>
<th>Likely significant effect identified from Renewable Energy and Sustainable Construction SPD?</th>
<th>Likely significant effect identified in combination with other plans?</th>
<th>AA needed?</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>None</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
6. Summary and conclusions

The Renewable Energy and Sustainable Construction SPD provides guidance to implement Policies DM03, DM04 and DM05 of the Development Management Policies and the strategic objectives of the Waveney Core Strategy. This is part of an overall plan to promote development that releases less carbon, is more energy efficient and overall is more sustainable. Encouraging and implementing renewable energy and carbon reduction technologies in new and existing buildings as well as stand-alone schemes could be considered to have benefits for Natura 2000 sites by limiting the impact of dangerous climate change when appropriately located.

The Development Management Policies DPD, which forms part of the Local Development Framework, together with the policies in the Core Strategy will inform the determination of applications within the District. The Renewable Energy and Sustainable Construction SPD will provide further guidance in support of the decision making process.

The condition of Sites of Special Scientific Interest (SSSIs - which include all European Sites, amongst others) in the District is included in the monitoring framework for the Core Strategy. This will allow adverse impacts on SSSIs to be monitored and policies reviewed if necessary.

The Renewable Energy and Sustainable Construction Supplementary Planning Document conforms with both the Core Strategy and Development Management Policies which have already been judged to have no significant impacts on Natura 2000 sites. All policies within these DPDs have also been the subject of a Sustainability Appraisal to help identify the preferred policies for use in making decisions on planning applications.

In conclusion, the guidance set out in the Renewable Energy and Sustainable Construction SPD is considered not to have any significant impact on European sites, either alone or in combination with other plans and strategies. Therefore, it will not be necessary to carry out a full Appropriate Assessment of the guidance in the document.
List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>GB</td>
<td>Great Britain</td>
</tr>
<tr>
<td>RSPB</td>
<td>Royal Society for the Protection of Birds</td>
</tr>
<tr>
<td>SAC</td>
<td>Special Area of Conservation</td>
</tr>
<tr>
<td>SPA</td>
<td>Special Protection Area</td>
</tr>
<tr>
<td>SSSI</td>
<td>Site of Special Scientific Interest</td>
</tr>
</tbody>
</table>

Sources of background information

- Natura 2000 Standard Data Forms and Information Sheets on Ramsar Wetlands, at [www.jncc.gov.uk](http://www.jncc.gov.uk) - Details of protected sites.