

## Broads Wildlife and Habitat Importance and Designations

### 1 Summary

The Broads is one of Europe's finest and important wetlands for nature conservation. It includes designated sites for nature conservation, including 28 Sites of Special Scientific Interest (SSSIs), which cover 24% of the Broads executive area. One-third of SSSIs are designated National Nature Reserves (NNRs) (Map 3). Virtually all SSSIs also have international designation under European Habitats and Birds Directives and Ramsar Convention. For more on the legislation see section 3 in this Appendix.

The Broads, apart from having many designated sites for nature conservation, is also important for wildlife throughout its area, with land and water managed for both biodiversity and landscape. Often, hydrological connections between the waterways, fens and grazing marsh dykes will result in pollution in one part of the wetland affecting a wide area.

Biodiversity Action Plans, derived from the UK's ratification of the Convention on Biological Diversity, give guidance and targets for species and habitat management and protection. The Biodiversity Action Plan can be downloaded from the Broads Authority website.

The Water Framework Directive establishes a framework for protection surface water, groundwater, and coastal and transitional waters. Targets are set to protect and improve the ecological status of the waterbodies.

Within the Broads are the Broads Special Area of Conservation (SAC), Broadland Special Protection Area (SPA) and Broads Ramsar site.

The following European sites have been considered through the Appropriate Assessment process:

**Special Protection Areas (SPAs)** (protected sites classified under the EC Directive on the conservation of wild birds, the Birds Directive):

- Broadland
- Breydon Water

**Special Areas of Conservation (SACs)** (protected sites designated under the EC Habitats Directive):

- The Broads
- Winterton – Horsey Dunes

## Sites European qualifying features

Broadland SPA/SAC	Qualifying Features	Key Environmental Features that support site integrity
Broads SAC 1	3140 Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	Topography, hydrology, drainage, water quality
Broads SAC 2	3150 Natural eutrophic lakes with <i>Magnopotamion</i> or Hydrocharition-type vegetation	Topography, hydrology, drainage, water quality
Broads SAC 3	7140 Transition mires and quaking bogs	Topography, hydrology, drainage, water quality, management
Broads SAC 4	7210 Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	Topography, hydrology, drainage, water quality, soil conditions, management
Broads SAC 5	7230 Alkaline fens	Topography, hydrology, drainage, water quality, soil conditions, management
Broads SAC 6	91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> )	Hydrology, lack of human intervention
Broads SAC 7	6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> )	Hydrology, management, drainage
Broads SAC 8	1903 Fen orchid <i>Liparis loeselii</i>	Hydrology, drainage, water quality, soil conditions, management
Broads SAC 9	1395 Desmoulin's whorl snail <i>Vertigo moulinsiana</i>	Hydrology, flood frequency, management
Broads SAC 10	1355 Otter <i>Lutra lutra</i>	Relative tranquillity, hydrology,
Broadland SPA 1	Breeding Populations: <ul style="list-style-type: none"> <li>• bittern, 3 individuals representing up to 15.0% of the breeding population in Great Britain (Count as at 1998)</li> <li>• marsh harrier 21 pairs representing up to 13.1% of the breeding population in Great</li> </ul>	Relative tranquillity, hydrology,

	Britain (Count as at 1995)	
Broadland SPA 2	<p>Overwintering populations:</p> <ul style="list-style-type: none"> <li>• Bewick's Swan <i>Cygnus columbianus bewickii</i>, 320 individuals representing up to 4.6% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)</li> <li>• Bittern <i>Botaurus stellaris</i>, 6 individuals representing up to 6.0% of the wintering population in Great Britain</li> <li>• Hen Harrier <i>Circus cyaneus</i>, 22 individuals representing up to 2.9% of the wintering population in Great Britain (5 year peak mean 1987/8-1991/2)</li> <li>• Ruff <i>Philomachus pugnax</i>, 96 individuals representing up to 13.7% of the wintering population in Great Britain (5 yr peak mean 87/8-91/2)</li> <li>• Whooper Swan <i>Cygnus cygnus</i>, 133 individuals representing up to 2.4% of the wintering population in Great Britain (5 yr peak mean 93/4-97/8)</li> </ul> <p>The site also qualifies under <b>Article 4.2</b> of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:</p> <p><b>Over winter;</b></p> <ul style="list-style-type: none"> <li>• Gadwall <i>Anas strepera</i>, 605 individuals representing up to 2.0% of the wintering Northwestern Europe population (RSPB: Count 99/00)</li> <li>• Pink-footed Goose <i>Anser brachyrhynchus</i>, 3,290 individuals representing up to 1.5% of the wintering Eastern Greenland/Iceland/UK population (5 yr peak mean 94/5-98/9)</li> <li>• Shoveler <i>Anas clypeata</i>, 401 individuals representing up to 1.0% of the wintering Northwestern/Central Europe population (RSPB: Count 99/00)</li> </ul> <p><b>Assemblage qualification: A wetland of international importance.</b></p> <p>The area qualifies under <b>Article 4.2</b> of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl</p> <p>Over winter, the area regularly supports 22,603 individual waterfowl (RSPB, Count 99/00) including: Cormorant <i>Phalacrocorax carbo</i>, Bewick's Swan <i>Cygnus columbianus bewickii</i>, Whooper Swan <i>Cygnus cygnus</i>, Ruff <i>Philomachus pugnax</i>, Pink-footed Goose <i>Anser brachyrhynchus</i>, Gadwall <i>Anas strepera</i>, Bittern <i>Botaurus stellaris</i>, Great Crested Grebe <i>Podiceps cristatus</i>, Coot <i>Fulica atra</i>, Bean Goose <i>Anser fabalis</i>, White-fronted Goose</p>	Relative tranquillity, hydrology, water quality.

	<i>Anser albifrons albifrons</i> , Wigeon <i>Anas penelope</i> , Teal <i>Anas crecca</i> , Pochard <i>Aythya ferina</i> , Tufted Duck <i>Aythya fuligula</i> , Shoveler <i>Anas clypeata</i> .	
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<b>Breydon Water SPA</b>	<b>Qualifying Features</b>	<b>Key Environmental Features that support site integrity</b>
Breydon SPA 1	Breeding populations: common tern, 155 pairs representing up to 1.3% of the breeding population in Great Britain (4 count mean, 1992-1994 & 1996)	Relative tranquillity, estuarine processes, water quality
Breydon SPA 2	Wintering populations: <ul style="list-style-type: none"> <li>• Avocet <i>Recurvirostra avosetta</i>, 33 individuals representing up to 2.6% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)</li> <li>• Bewick's Swan <i>Cygnus columbianus bewickii</i>, 391 individuals representing up to 5.6%</li> </ul>	Relative tranquillity, estuarine processes, water quality

	of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6) <ul style="list-style-type: none"> <li>• Golden Plover <i>Pluvialis apricaria</i>, 5,040 individuals representing up to 2.0% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)</li> </ul>	
Breydon SPA 3	Winter bird assemblage: the area regularly supports 43,225 individual waterfowl (5 year peak mean 1991/2 - 1995/6) including: Black-tailed Godwit <i>Limosa limosa islandica</i> , Dunlin <i>Calidris alpina alpina</i> , Lapwing <i>Vanellus vanellus</i> , Shoveler <i>Anas clypeata</i> , Wigeon <i>Anas penelope</i> , White-fronted Goose <i>Anser albifrons albifrons</i> , Cormorant <i>Phalacrocorax carbo</i> , Golden Plover <i>Pluvialis apricaria</i> , Avocet <i>Recurvirostra avosetta</i> , Bewick's Swan <i>Cygnus columbianus bewickii</i> .	Relative tranquillity, estuarine processes, water quality

Great Yarmouth North Denes SPA/SAC	Qualifying Features	Key Environmental Features that support site integrity
W-HD SAC 1	2150 Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> )	Coastal processes
W-HD SAC 2	2190 Humid dune slacks	Topography, rainfall, hydrology
W-HD SAC 3	2110 Embryonic shifting dunes	Coastal processes
W-HD SAC 4	2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	Coastal processes
GYND SPA 1	Breeding Populations: little tern <i>Sterna albifrons</i> .	Coastal processes, extent of site, relative tranquillity.

## 2 Habitats

The Map attached shows the distribution of important habitats for nature conservation in the Broads.

### 2.1 **Water and Reedswamp**

There are 63 broads, of which 68% are directly connected to the rivers. Pollution from the river has been shown to affect these connected broads. Several of the broads and rivers are home to rare aquatic plants; some found nowhere else in the UK, such as holly-leaved naiad and intermediate stonewort.

### 2.2 **Fens and Reedbeds**

The Broads has the largest expanse of lowland species-rich fen in lowland Britain. Fens and reedbeds as part of the Broads wetland are in hydrological connection to the river water thus water quality is important for this habitat as it is for the open water itself.

### 2.3 **Estuary**

Breydon is an important salt marsh area with mud-flats which provide an internationally important staging post for migratory birds.

### 2.4 **Grazing Marshes**

These drained or grazing marshes, if managed correctly provide habitat to farmland birds, particularly waders and wildfowl. The grazing marsh dykes are important for aquatic plants and rare invertebrates such as snails. Water to supply these dykes can come from the river. This is the case for Halvergate Marshes which is part of the Broads Special Area of Conservation, where river water is pumped into the grazing marsh dykes via the Stracey intake.

## 3 Legislation

### 3.1 **International Legislation**

*Ramsar Convention*: Or to give it its full title, the 'Convention on Wetlands of International Importance, especially as Waterfowl Habitat'. This is a global convention, signed at Ramsar in Iran in 1971, and ratified by the UK in 1976. It has 3 main aims: designation of wetlands as Ramsar sites, 'wise use' of wetlands, and international co-operation.

### 3.2 **EU legislation**

*Habitats Directive:* To promote maintenance of biodiversity by requiring member states to take measures to maintain or restore habitats and species at 'favourable conservation status', with national governments reporting to the EU every 6 years. It includes designating a series of protected sites (Special Areas of Conservation SAC), which together with SPAs classified under the **Birds Directive** (see below), makes up an EU-wide network of sites (the **Natura 2000** series).

*Birds Directive:* Requires member states to take steps to protect listed bird species and the habitats on which they depend by classifying Special Protection Areas (SPA).

Both the Habitats and Birds Directives are enshrined in UK legislation under the Conservation (Natural Habitats &c) Regulations 1994, otherwise known as the 'Habitats Regulations'.

*Water Framework Directive:* To establish a framework for protection of inland surface waters (and) groundwater. It aims to ensure all aquatic ecosystems, and, with regard to their water needs, all terrestrial ecosystems and wetlands meet 'good status' by 2015. The Directive requires member states to establish river basin districts and management plans, to be reviewed every 6 years.

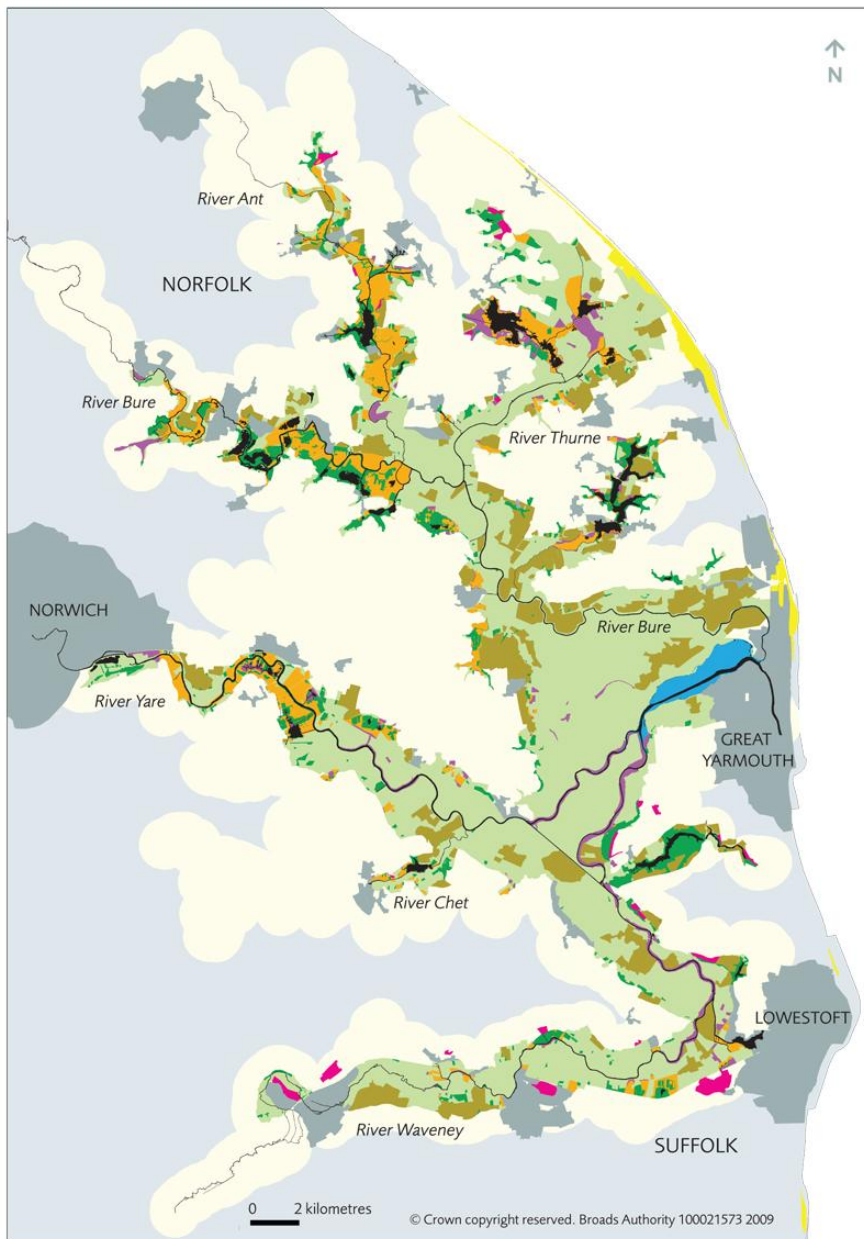
### 3.3 **UK legislation**

*Wildlife and Countryside Act 1981 (as amended):* this underpins statutory nature conservation in the UK, and most significantly, makes provision for the notification by English Nature of Sites of Special Scientific Interest (SSSI), and where appropriate, National Nature Reserves managed by 'approved bodies' other than EN.

The Act is supplemented and amended by the **Countryside and Rights of Way Act 2000**, which strengthens protection of SSSIs by giving Natural England greater enforcement powers, and makes provision for open public access to certain types of land (defined as mountain, moor, heath, and down). Section 28 places a duty on all public bodies, including the Broads Authority, to enhance the special interests of SSSIs.

The provisions of the 1995 Environment Act (Section 62) and 2000 CRoW Act (Sections 85 and 97) confer statutory duties on 'relevant authorities', which include statutory agencies and local authorities, to have regard to the purposes of national parks, Areas of Outstanding Natural Beauty and the Broads.

*Biodiversity Action Plans:* these are a framework for achieving wildlife conservation based on targets for habitats and species. These are identified and planned for at local, regional and national level, and usually implemented by local partnerships such as the Broads Biodiversity Action Plan. They can embrace broad habitats (ie fens) or the needs of the smallest insects or plants (such as Norfolk hawker dragonfly). The production of BAPS derived from the UK's ratification of the Convention on Biological Diversity, itself one of the outcomes of the Earth Summit in Rio in 199



- Estuary
- Arable
- Coast
- Lowland Heathland and Acid Grassland
- Fen\*
- Reedbed\*\*
- Woodland and Scrub
- Grassland\*\*\*
- Rivers and Broads
- Urban
- Broads BAP Boundary

\* Fen - includes some smaller patches of woodland

\*\* Reedbed is defined as - areas on mineral soils and whilst reed dominates will contain a mix of other fen plants

\*\*\* Grassland - includes grazing marsh and some similar urban classifications e.g. boatyards, allotments