

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 14 February 1994

3. Country:

UK (England)

4. Name of the Ramsar site:

Benfleet and Southend Marshes

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

32867 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

Dark-bellied brent goose, *Branta bernicla bernicla*, 4532 individuals, representing an average of 2.1% of the population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Grey plover, *Pluvialis squatarola*, E Atlantic/W Africa -wintering 1710 individuals, representing an average of 3.2% of the GB population (5 year peak mean 1998/9-2002/3)

Red knot, *Calidris canutus islandica*, W & Southern Africa (wintering) 6307 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in winter:

Dunlin, *Calidris alpina alpina*, W Siberia/W Europe 17591 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

Details of bird species occurring at levels of National importance are given in Section 22

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	neutral, mud, clay, nutrient-poor, sedimentary, sand, gravel, shingle
Geomorphology and landscape	lowland, island, coastal, valley, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), islands, lagoon
Nutrient status	no information
pH	no information
Salinity	brackish / mixosaline, saline / euhaline

Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Greenwich, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/greenwich.html) Max. daily temperature: 14.8° C Min. daily temperature: 7.2° C Days of air frost: 29.1 Rainfall: 583.6 mm Hrs. of sunshine: 1461.0

General description of the Physical Features:

Benfleet and Southend Marshes are located on the north shore of the outer Thames Estuary. The site comprises an extensive series of saltmarshes, cockle shell banks, mudflats, and grassland.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Benfleet and Southend Marshes are located on the north shore of the outer Thames Estuary. The site comprises an extensive series of saltmarshes, cockle shell banks, mudflats, and grassland.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	85.1
H	Salt marshes	6.7
B	Marine beds (e.g. sea grass beds)	5.3
Tp	Freshwater marshes / pools: permanent	2.8
M	Rivers / streams / creeks: permanent	0.05
J	Coastal brackish / saline lagoons	0.05

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Benfleet and Southend Marshes comprise an extensive series of saltmarshes, mudflats and grassland. These habitats support a diverse flora and fauna. The south-facing slopes of the downs are composed of London Clay capped by sand, and represent the line of former river cliffs with several re-entrant valleys. At their foot lies land-claimed marshland, with its associated dyke system, base on alluvium.

The grassland of the downs is dominated by a mixture of red fescue *Festuca rubra*, cock's-foot *Dactylis glomerata*, false oat-grass *Arrhenatherum elatius* and bents *Agrostis* spp. typical of neutral to acidic conditions. The land-claimed marsh is grazed by cattle and horses. It is dominated by grasses such as meadow foxtail *Alopecurus pratensis* and perennial rye-grass *Lolium perenne*, and sea clover

Trifolium squamosum, strawberry clover *T. fragiferum* and hairy buttercup *Ranunculus sardous* are also present.

The ponds and dykes exhibit a transition between fresh and brackish water and support a wide range of plant and animal species. The dykes are dominated by sea club-rush *Bolboschoenus maritimus*, sweet-grasses *Glyceria* spp., duckweeds *Lemma* spp., mare's-tail *Hippuris vulgaris* and hornworts *Ceratophyllum demersum* and the uncommon *C. submersum*. Other uncommon species include beaked tasselweed *Ruppia maritima* and brackish water-crowfoot *Ranunculus baudotii*.

The sea wall is dominated by sea couch *Elymus pungens*; uncommon species also present include sea barley *Hordeum marinum*, slender hare's ear *Bupleurum tenuissimum* and seaside red goosefoot *Chenopodium botryoides*. The salt marsh has a high marsh flora of sea purslane *Atriplex portulacoides* and common sea-lavender *Limonium vulgare*, together with sea arrow-grass *Triglochin maritima*, common saltmarsh-grass *Puccinellia maritima*, sea aster *Aster tripolium* and the scarce lax-flowered sea-lavender *Limonium humile*. The lower areas and creek edges are noted for their diversity of glassworts *Salicornia* spp, including perennial glasswort *S. perennis*. Golden samphire *Inula crithmoides* occurs on the highest parts of the marsh, beneath the sea walls, whilst small cord-grass *Spartina maritima* is found on the lowest areas.

The mudflats are colonised by eelgrasses *Zostera marina* and *Z. noltei* which, together with dense patches of *Enteromorpha* and rich invertebrate fauna within the mud, provide food for thousands of birds which overwinter on this shoreline.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.

Hordeum marinum (nationally scarce), *Bupleurum tenuissimum* (nationally scarce), *Trifolium squamosum* (nationally scarce), *Chenopodium chenopodioides* (RDB Lower risk – near threatened), *Limonium humile* (nationally scarce), *Inula crithmoides* (nationally scarce), *Spartina maritima* (nationally scarce), *Zostera marina* (nationally scarce), *Zostera noltei* (nationally scarce).

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species with peak counts in spring/autumn:

Little egret, *Egretta garzetta*, West Mediterranean

17 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)

Common greenshank , *Tringa nebularia*,
Europe/W Africa

31 individuals, representing an average of 5.1%
of the GB population (5 year peak mean 1998/9-
2002/3)

Species with peak counts in winter:

Ringed plover , *Charadrius hiaticula*,
Europe/Northwest Africa

356 individuals, representing an average of 1% of
the GB population (5 year peak mean 1998/9-
2002/3)

Species Information

Nationally important species occurring on the site.

Amphibians.

Triturus cristatus (vulnerable and protected under national and European legislation).

Invertebrates.

Myopites bloti (RDB3), *Lestes dryas* (RDB2).

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

- Aesthetic
- Archaeological/historical site
- Environmental education/ interpretation
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Tourism
- Traditional cultural

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
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Non-governmental organisation (NGO)	+	
Local authority, municipality etc.	+	+
Private	+	+
Other		+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Collection of non-timber natural products: commercial		+
Cutting of vegetation (small-scale/subsistence)	+	
Fishing: recreational/sport	+	+
Gathering of shellfish	+	+
Bait collection	+	
Permanent arable agriculture		+
Grazing (unspecified)	+	+
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	+
Harbour/port	+	+
Flood control	+	+
Mineral exploration (excl. hydrocarbons)		+
Transport route		+
Urban development		+
Non-urbanised settlements		+
Military activities		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Erosion	2	Rising sea levels and sinking land levels are compounded by coastal flood defences preventing dynamic coastal change	+	+	+

Pollution – domestic sewage	1			+	+
Pollution – unspecified	1	The Thames Estuary is hyper-nitrified for nitrogen and phosphorus, both in summer and winter		+	+
Recreational/tourism disturbance (unspecified)	2	Leisure boating activities including jet-skiing, sailing and power-boating	+		

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Erosion - The Essex Coast and Estuaries Coastal Habitat Management Plan (CHaMP) (Anon. 2002) covers the site and it is expected to inform the shoreline management plan as well as local plan policies.

Recreational/tourism disturbance (unspecified) - Measures are planned to deal with this factor. The Thames Estuary Partnership Steering Group is proposing the development of a coastal management strategy for recreational users. This should lead to regulatory stakeholders in the partnership enforcing the strategy and reducing the factor.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	+
National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Site management statement/plan implemented	+	
Other	+	+
Environmentally Sensitive Area (ESA)	+	+
Management plan in preparation	+	+

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Contemporary.

Fauna.

Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl &

Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Miscellaneous.

Aerial photographs - Environment Agency.

The Environment Agency regularly conducts surveys for beach profiling the site.

The Thames Estuary Partnership Research Forum has been established.

Environment.

Samples taken for pollution control by local council who are thinking of checking the samples for invertebrates as well.

Completed.

Fauna.

Zostera survey work - undertaken by Queen Mary University, London.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Noticeboards are provided by the local authority and Essex Wildlife Trust. Essex Wildlife Trust lead guided walks on the SSSI but not on the Ramsar site. There is also a Country Park Warden available to show people around.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.

Tourism - people on the beach (mainly summer) - Southend on Sea, the town on the boundary of the SPA/Ramsar, is the traditional day-trippers destination from London. It has a large infrastructure based around tourism.

Dog walking - all year - no facilities provided.

Horse-riding on the boundary of the site - all year - paths have been created.

Water-skiing - mainly in summer - ramps are provided and there are defined water-skiing areas.

Jet-skiing - mainly in summer - ramps are provided and there are defined jet-skiing areas.

Boating - occurs mainly in summer - moorings and slipways are available.

Swimming - summer past-time - no facilities

Angling - during fishing season - takes place from the pier.

Wildfowling - during shooting season - no facilities provided.

Bait-digging - occurs all year - licences are issued by the local authority as bait-digging is covered by local bylaws.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs,

European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Site-relevant references

- Anon. (2002) *Essex Coast and Estuaries Coastal Habitat Management Plan: Executive summary*. English Nature, Peterborough (Living with the Sea LIFE Project). www.english-nature.org.uk/livingwiththesea/champs/pdf/ESSEX.FINALEXEC.SUMMARY.pdf
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- Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 5. Eastern England*. Joint Nature Conservation Committee, Peterborough
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- Pritchard, DE, Housden, SD, Mudge, GP, Galbraith, CA & Pienkowski, MW (eds.) (1992) *Important Bird Areas in the United Kingdom including the Channel Islands and the Isle of Man*. Royal Society for the Protection of Birds, Sandy
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- Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default.htm

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