

# Information Sheet on Ramsar Wetlands (RIS)

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

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

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Designation date

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Site Reference Number

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## 2. Date this sheet was completed/updated:

Designated: 11 March 1992

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## 3. Country:

UK (England)

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## 4. Name of the Ramsar site:

Exe Estuary

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

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

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## 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:

**7. Map of site included:**

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) *Yes*
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* ☐;

b) **Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

**8. Geographical coordinates (latitude/longitude):**

50 38 50 N                      03 26 32 W

**9. General location:**

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Exeter

The Estuary runs south-eastward for about 4 km from Exeter to the junction of the Ex and Clyst Rivers. Here it broadens, being over 2 km wide in places, and runs for a further 7 km to Exmouth, where it is sheltered from the sea by the sand ridge of Dawlish Warren.

**Administrative region:** Devon

**10. Elevation** (average and/or max. & min.) (metres):    **11. Area** (hectares): 2345.71

Min.	-1
Max.	5
Mean	0

**12. General overview of the site:**

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The site encompasses the waters, foreshore, low-lying land, three marshes and an unusual double spit across the mouth of the estuary and sand dunes of Dawlish Warren. This complex of habitats supports internationally important numbers of wintering and passage waterfowl, as well as populations of breeding birds and nationally important rare plants and invertebrates.

**13. Ramsar Criteria:**

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

**5, 6**

**14. Justification for the application of each Criterion listed in 13 above:**

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 5

**Assemblages of international importance:**

**Species with peak counts in winter:**

20263 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 winter:**

Dark-bellied brent goose, *Branta bernicla* 1509 individuals, representing an average of 1.5% of the GB 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:**

Black-tailed godwit, *Limosa limosa islandica*, 857 individuals, representing an average of 2.4% 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](http://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, shingle, sand, mud, alluvium, sedimentary, sandstone, gravel
Geomorphology and landscape	lowland, coastal, floodplain, shingle bar, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), estuary
Nutrient status	mesotrophic
pH	circumneutral
Salinity	brackish / mixosaline, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent

Summary of main climatic features	Annual averages (Teignmouth, 1971–2000) ( <a href="http://www.metoffice.com/climate/uk/averages/19712000/sites/teignmouth.html">www.metoffice.com/climate/uk/averages/19712000/sites/teignmouth.html</a> ) Max. daily temperature: 14.2° C Min. daily temperature: 8.0° C Days of air frost: 15.2 Rainfall: 850.0 mm Hrs. of sunshine: 1710.0
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**General description of the Physical Features:**

The Exe Estuary extends 10 km south from Exeter to the open sea at Dawlish Warren. It comprises the waters, foreshore, low-lying land, three saltmarshes and an unusual double spit across the mouth of the estuary, and the sand dunes of Dawlish Warren. The mud- and sand-flats support eelgrass *Zostera* spp. and *Enteromorpha* beds, and contain an abundance of invertebrates including extensive mussel *Mytilus edulis* beds

**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).

The Exe catchment encompasses an area of 1,530km<sup>2</sup>. It drains diverse habitats ranging from the moorland of Exmoor National Park at the headwaters of the River Exe, to the Exe Estuary at Exmouth. The River Exe rises on Exmoor at 450m above sea level and descends 82.7 km. The main tributaries of the River Exe are the Rivers Culm, Barle, Clyst and the Creedy.

The catchment extends across several different landscape types. The Rivers Exe and Barle rise in the wet open moorland of Exmoor, before running south-eastward through steep-sided valleys with extensive broad-leaved woodlands. Further east, smaller tributaries run off the Brendon Hills, with the River Haddeo dammed to create Wimbleball Reservoir. Man has modified much of Exmoor, with extensive enclosure and agricultural improvement in the nineteenth century.

The Exe Estuary extends 10 km south from Exeter to the open sea at Dawlish Warren. It forms a partially enclosed tidal area comprising the waters, foreshore, low-lying land, three saltmarshes and an unusual double spit across the mouth of the estuary, and the sand dunes of Dawlish Warren. Dawlish Warren and Pole Sands (a sand bank) form natural breakwaters between the approach channel and open water of Lyme Bay to the south west. These provide some protection against flooding and dangerous storm surges.

**18. Hydrological values:**

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

No special values known

**19. Wetland types:**

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	32.5
F	Estuarine waters	32.5
Tp	Freshwater marshes / pools: permanent	10
E	Sand / shingle shores (including dune systems)	10
9	Canals and drainage channels	5
H	Salt marshes	5
B	Marine beds (e.g. sea grass beds)	5

**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.

The Exe Estuary is sheltered by Dawlish Warren, an unusual double spit across the mouth of the estuary, which supports a variety of plant and animal communities representative of south-west Britain, including the only remaining British mainland population of the sand crocus *Romulea columnnae*. The site contains a full sequence of intertidal habitats which are important for invertebrate fauna. Tidal flats, saltmarsh, reedbeds, sand dunes and enclosed grazing marsh are all well represented. Exminster Marshes support regionally rare plants such as parsley water dropwort *Oenanthe lachenalii* and flowering rush *Butomus umbellatus*, and two species of nationally scarce dragonfly, the ruddy darter *Sympetrum sanguinum* and the hairy dragonfly *Brachyton pratense*. The extensive areas of sand and mud are of marine nature conservation importance, largely due to the presence of *Ophelia bicornis*, a polychaete worm known from only one other site in Britain, and also for eelgrass *Zostera* spp. beds. The Orcombe rocks are a key geological feature displaying excellent coastal section in the sandstones, siltstones and mudstones (Benton, Cook & Turner 2002).

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.*

Sand crocus *Romulea columnnae*

Parsley water dropwort *Oenanthe lachenalii*

Flowering rush *Butomus umbellatus*

Eelgrass *Zostera* spp.

**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 regularly supported during the breeding season:**

Little tern, *Sterna albifrons albifrons*, W Europe 73 pairs, representing an average of 3.7% of the GB population (Mean 1992 to 1996)

**Species with peak counts in spring/autumn:**

Little egret, *Egretta garzetta*, West Mediterranean 81 individuals, representing an average of 4.9% of the GB population (5 year peak mean 1998/9-2002/3)

Whimbrel, *Numenius phaeopus*, Europe/Western Africa 79 individuals, representing an average of 2.6% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)

Common greenshank, *Tringa nebularia*, Europe/W Africa 54 individuals, representing an average of 9% of the GB population (5 year peak mean 1998/9-2002/3)

**Species with peak counts in winter:**

Red-breasted merganser, *Mergus serrator*, NW & C Europe 114 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)

Water rail, *Rallus aquaticus*, Europe 5 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)

Pied avocet , *Recurvirostra avosetta*,  
Europe/Northwest Africa

455 individuals, representing an average of 13.4% of the GB population (5 year peak mean 1998/9-2002/3)

Spotted redshank , *Tringa erythropus*, Europe/W Africa

5 individuals, representing an average of 3.6% of the GB population (5 year peak mean 1998/9-2002/3)

**Species Information**

- Ruddy darter *Sympetrum sanguinum*
- Hairy dragonfly *Brachyton pratense*.
- Ophelia bicornis*

**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
- Aquatic vegetation (e.g. reeds, willows, seaweed)
- Archaeological/historical site
- Environmental education/ interpretation
- Fisheries production
- Livestock grazing
- Scientific research
- Sport fishing
- Sport hunting
- Tourism
- Traditional cultural
- Transportation/navigation

**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
Non-governmental organisation (NGO)	+	
Local authority, municipality etc.	+	
National/Crown Estate	+	

Private	+	
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**25. Current land (including water) use:**

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Fishing: commercial	+	+
Fishing: recreational/sport	+	
Marine/saltwater aquaculture	+	
Gathering of shellfish	+	
Bait collection	+	
Arable agriculture (unspecified)	+	+
Rough or shifting grazing	+	+
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	
Harbour/port	+	+
Flood control	+	+
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?
No factors reported	NA				

For category 2 factors only.  
 What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

**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)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Management agreement	+	
Site management statement/plan implemented	+	
Other	+	
Area of Outstanding National Beauty (AONB)		+
Special Area of Conservation (SAC)	+	
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.

**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.

**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.

The Dawlish Warren National Nature Reserve warden leads guided walks. There are interpretation facilities in the form of fixed interpretation panels at the NNR and main public access points around the site and within the interpretation centre.

The RSPB lead guided walks on their Exminster Marsh and Bowling Green Marsh reserves and Devon Wildlife Trust lead walks at their 'Old Sludge Bed' reserve. Other educational events are frequently staged by local authorities. East Devon DC lead walks on Exmouth LNR.

**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.**

Land based recreation:

Walking, dog walking, bathing, birdwatching, golf.

Wildfowling, controlled by leases from Crown Estate in consultation with RSPB and EN.

Wildfowling undertaken over private land.

Water based recreation:



Power boating, sailing, angling, canoeing, kite surfing, windsurfing, personal hovercraft, surf life saving.

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### 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

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### 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

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### 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

- Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP, Davidson, NC & Buck, AL (eds.) (1996) *Coasts and seas of the United Kingdom. Region 10 South-west England: Seaton to the Roseland Peninsula*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)
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- Buck, AL (ed.) (1997) *An inventory of UK estuaries. Volume 6. Southern England*. Joint Nature Conservation Committee, Peterborough
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- Wiggington, M (1999) *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough

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