

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note 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. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

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

FOR OFFICE USE ONLY.

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 31 March 1999

3. Country:

UK (England)

4. Name of the Ramsar site:

Poole Harbour

5. Map of site included:

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

a) hard copy (required for inclusion of site in the Ramsar List): yes ✓ -or- no

b) digital (electronic) format (optional): Yes

6. Geographical coordinates (latitude/longitude):

50 40 52 N

02 01 34 W

7. 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: Poole

Poole Harbour lies on the south coast of England between the town of Poole and the Isle of Purbeck.

Administrative region: Dorset

8. Elevation (average and/or max. & min.) (metres): **9. Area** (hectares): 2439.2

Min. -2

Max. 5

Mean 0

10. Overview:

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

Poole Harbour is a bar-built estuary covering an area of nearly 4000 hectares. The Harbour occupies a shallow depression in the acidic, tertiary deposits towards the south-western extremity of the Hampshire Basin and has been formed over the last 5000 years by a rise in sea level. The unusual micro-tidal regime means that a significant body of water is retained throughout the tidal cycle. The site therefore exhibits many of the characteristics of a lagoon. There are extensive intertidal mudflats supporting internationally important numbers of waterfowl in winter. These are fringed on the landward side by saltmarshes or reedbeds. The river valleys of the lower Frome and Piddle support grazing marsh which is also important for wintering waterfowl. Much of the catchment along the western and southern shores comprises the internationally important Dorset heathlands and there are unusual transitions from saltmarsh to valley mire. The Harbour is separated from Poole Bay by the internationally important Studland dunes and the site includes Littlesea, a large dune slack lake also important for wintering wildfowl.

11. 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).

1, 2, 3, 5, 6

12. Justification for the application of each Criterion listed in 11. 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 1

The site is the best and largest example of a bar-built estuary with lagoonal characteristics (a natural harbour) in Britain.

Ramsar criterion 2

The site supports two species of nationally rare plant and one nationally rare alga. There are at least three British Red data book invertebrate species.

Ramsar criterion 3

The site includes examples of natural habitat types of community interest - Mediterranean and thermo Atlantic halophilous scrubs, in this case dominated by *Suaeda vera*, as well as calcareous fens with *Cladium mariscus*. Transitions from saltmarsh through to peatland mires are of exceptional conservation importance as few such examples remain in Britain.

The site supports nationally important populations of breeding waterfowl including Common tern, *Sterna hirundo* and Mediterranean gull *Larus melanocephalus*. Over winter the site also supports a nationally important population of Avocet *Recurvirostra avosetta*.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

24709 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:

Common shelduck , <i>Tadorna tadorna</i> , NW Europe	2120 individuals, representing an average of 2.7% of the GB population (5 year peak mean 1998/9-2002/3)
Black-tailed godwit , <i>Limosa limosa islandica</i> , Iceland/W Europe	1724 individuals, representing an average of 4.9% 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:

Pied avocet , <i>Recurvirostra avosetta</i> , Europe/Northwest Africa	1260 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)
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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.

See Sections 19/20 for details of noteworthy species

Details of bird species occurring at levels of National importance are given in Section 20

13. 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

14. 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	acidic, sand, mud, clay, peat, sedimentary
Geomorphology and landscape	lowland, island, coastal, valley, floodplain, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), estuary, lagoon, cliffs
Nutrient status	no information
pH	circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Everton, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/everton.html) Max. daily temperature: 14.0° C Min. daily temperature: 7.0° C Days of air frost: 32.5 Rainfall: 763.7 mm Hrs. of sunshine: 1750.7

General description of the Physical Features:

Poole Harbour is a bar-built estuary of nearly 4,000 ha, occupying a shallow depression towards the south-western extremity of the Hampshire Basin. The unusual micro-tidal regime means that a significant body of water is retained throughout the tidal cycle. The Harbour therefore exhibits many of the characteristics of a lagoon. There are extensive intertidal mudflats and, away from the north shore that has become urbanised through the growth of the town of Poole, there are fringes of saltmarsh and reedbed.

15. 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).

Poole Harbour is a bar-built estuary of nearly 4,000 ha, occupying a shallow depression towards the south-western extremity of the Hampshire Basin. The unusual micro-tidal regime means that a significant body of water is retained throughout the tidal cycle. The Harbour therefore exhibits many of the characteristics of a lagoon. There are extensive intertidal mudflats and, away from the north shore that has become urbanised through the growth of the town of Poole, there are fringes of saltmarsh and reedbed.

16. Hydrological values:

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

Maintenance of water quality (removal of nutrients)

17. Wetland types

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	55
H	Salt marshes	21
Tp	Freshwater marshes / pools: permanent	23
U	Peatlands (including peat bogs swamps, fens)	0.5
4	Seasonally flooded agricultural land	0.5

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

Subtidal sediments are mainly fine muds and sands with hard substrate occurring locally in the vicinity of the channels which link the series of basins which make up the Harbour. Associated with the subtidal sands of the central Harbour are species rich communities dominated by beds of the tube-worm *Sabella pavanina*. Intertidal areas are again largely fine grain muds although coarser sediments occur in the north-east of the Harbour. Much of the middle and lower saltmarsh is dominated by common cordgrass *Spartina anglica*. Some retreat of the extent of this plant is now occurring in the Harbour. Smaller areas of more species rich upper saltmarsh also occur including areas dominated by sea-blite *Suaeda vera*. Both tidal, brackish reedbed and fresh water reedbed occur around the fringes of the Harbour. Brackish grazing marshes dominated by creeping bent *Agrostis stolonifera* occur at Keyworth and in the lower Frome and Piddle valleys there is freshwater grazing marsh. The marshes north of the River Piddle have particularly complex vegetation being influenced both by the nutrient-poor acidic water originating in the valley mire at Morden and the nutrient-rich water of the River Piddle. Low sandy cliffs and slopes occur at the edge of Poole Harbour, and the heathland beyond is included in the Dorset Heathland Ramsar site. The large mesotrophic dune slack lake called Littlesea, on the Studland peninsula, is included in both the heathland Ramsar site and Poole Harbour Ramsar site for different interests.

19. 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.**

Scorzonera humilis, Potamogeton acutifolius, Alopecurus bulbosus, Oenanthe silaifolia, Myosurus minimus, Suaeda vera, Zostera angustifolia, Zostera noltei, Isoetes echinospora and Elatine hexandra

20. 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:**

Mediterranean gull , <i>Larus melanocephalus</i> , Europe	5 apparently occupied nests, representing an average of 4.6% of the GB population (Seabird 2000 Census)
Black-headed gull , <i>Larus ridibundus</i> , N & C Europe	1700 apparently occupied nests, representing an average of 1.3% of the GB population (Seabird 2000 Census)
Common tern , <i>Sterna hirundo hirundo</i> , N & E Europe	191 apparently occupied nests, representing an average of 1.8% of the GB population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Great cormorant , <i>Phalacrocorax carbo carbo</i> , NW Europe	402 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
Little egret , <i>Egretta garzetta</i> , West Mediterranean	91 individuals, representing an average of 5.5% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , <i>Tringa erythropus</i> , Europe/W Africa	5 individuals, representing an average of 3.6% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , <i>Tringa nebularia</i> , 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:

Black-necked grebe , <i>Podiceps nigricollis nigricollis</i> , Europe, N Africa	3 individuals, representing an average of 2.5% of the GB population (5 year peak mean 1998/9-2002/3)
Dark-bellied brent goose, <i>Branta bernicla bernicla</i> ,	1453 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Northern pintail , <i>Anas acuta</i> , NW Europe	308 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Red-breasted merganser , <i>Mergus serrator</i> , NW & C Europe	401 individuals, representing an average of 4% of the GB population (5 year peak mean 1998/9-2002/3)

Water rail , <i>Rallus aquaticus</i> , Europe	12 individuals, representing an average of 2.6% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , <i>Calidris alpina alpina</i> , W Siberia/W Europe	6323 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian curlew , <i>Numenius arquata arquata</i> , N. a. arquata Europe (breeding)	1570 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.

Invertebrates.

Saldula setulosa, *Piesma quadratum* and *Limonia bezzii*.

The nationally rare sponge *Suberites massa* also occurs.

21. Social and 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
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Tourism
- Traditional cultural
- Transportation/navigation

22. Land tenure/ownership:

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

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	+
Collection of non-timber natural products: (unspecified)	+	
Commercial forestry		+
Fishing: commercial	+	

Fishing: recreational/sport	+	
Marine/saltwater aquaculture	+	
Gathering of shellfish	+	+
Bait collection	+	+
Grazing (unspecified)	+	
Permanent pastoral agriculture	+	
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	+
Harbour/port	+	
Oil/gas exploration	+	+
Oil/gas production		+
Transport route	+	+
Urban development		+
Military activities	+	+

24. Factors 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?
Eutrophication	2	Nutrient enrichment is an issue, compounded by the site's physical characteristic of poor flushing. This is evident from the extensive algal mats covering intertidal mudflats during the summer months.		+	+
Introduction/invasion of non-native animal species	1		+	+	+

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
 Eutrophication - There are planned investigations and improvements to the largest point-source discharge at the wastewater treatment works under the Asset Management Plan AMP4 programme. Under the Urban Waste Water Treatment Directive, nitrate-stripping will be installed there. The planning application for this will be submitted in Autumn 2005.
 Environment Agency Review of Consents procedure to be completed by 31 March 2006. This is reviewing the possible adverse effects of existing consents with a view to modify/revoke.

Is the site subject to adverse ecological change? YES

25. 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	+	
Special Area of Conservation (SAC)	+	
Management plan in preparation	+	

26. Conservation measures proposed but not yet implemented:

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

No information available

27. 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.

Invertebrates (marine): surveys of subtidal ecology have been carried by P. Dyrinda, beginning in the 1980s.

Bait harvesting: Report into impact of bait harvesting (1995) followed by report into bait-dragging (1996).

Miscellaneous.

Langston *et al.* (2003) is being used to inform the scope of the Review of Consents.

Poole Harbour Study Group was established to investigate various issues, particularly those which may arise as a result of the Asset Management Plan. To date the group has undertaken and published various studies including Thomas *et al.* (2004).

28. Current conservation education:

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

There are a number of facilities for bird watching with permanent bird hides and other visitor facilities at Arne, Studland, Brownsea Island and Upton Country Park. Conservation education is also taken forward at these sites through guided walks and school visits.

29. Current recreation and tourism:

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

Infrastructure developments:

There are a number of marinas and boat havens along the northern shore of the Harbour. There are also some 2000 swinging moorings within the site. Most of the north shore of the site is urbanised and there is a caravan site adjacent to the Harbour at Rockley Sands.

Terrestrial and intertidal based recreation:

The site is not heavily used for bathing and beach recreation. There are numerous accesses for bird watching along the northern shore. Public access on the quiet southern shore is limited to Studland National Nature Reserve and a controlled access at Arne RSPB Reserve. There is also easy public access along the River Frome at Wareham allowing good viewing of birds on the grazing marsh.

Bait collection and fishing:

At a few places along the shoreline where there is good access the site is well used for bait-digging and angling. The eastern part of the site is a bass nursery area.

Water-based recreation:

Poole Harbour is heavily used for water sports recreation with sailing and other boating the most frequent activities. Water skiing, jet skiing, wind surfing, canoeing and angling also occur and are most frequent during the summer. The Zoning plan is attempting to address conflicts between users and other interests and has directed certain uses to areas where impacts on nature conservation are thought to be minimal.

A 'Navigate with nature' project, funded by the Department of the Environment, promoted best practice amongst Harbour users to reduce water pollution and disturbance to wildlife.

Wildfowling:

All wildfowling on the intertidal areas is under the control of the Dorset Wildfowling Association. Private estates also shoot on their own land - i.e. on saltmarsh above high water - but much of the shoreline above MHW is controlled by conservation organisations.

30. 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

31. 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

32. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

Site-relevant references

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