RAMSAR INFORMATION SHEET
FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Site reference number: UK138

Compilation date: Feb 1999
Country: UK (England)
Name of wetland: Poole Harbour
Site centre location: Latitude: 50 40 52 N  Longitude: 02 01 34 W
Altitude: Not being submitted
Area (ha): 2439.2

Overview
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.

8 Wetland type
Marine/coastal wetland

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

9 Ramsar Criteria
1b, 2a, 2b, 3a, 3b, 3c

10 Map of the site
√

11 Compiler
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Cambridgeshire PE1 1JY
UK

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12 Justification of criteria

Ramsar criterion 1b
The site is the best and largest example of a bar-built estuary with lagoonal characteristics (a natural Harbour) in Britain.

Ramsar criterion 2a
The site supports two species of nationally rare plant and one nationally rare alga. There are at least three red data book species of invertebrate.

Ramsar criterion 2b
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.

**Ramsar criterion 3a**
Internationally important waterfowl assemblage (greater than 20,000 birds)

**Ramsar criterion 3b**
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 3c**
Over winter the site regularly supports internationally important populations of: Black-tailed Godwit *Limosa limosa*, Shelduck *Tadorna tadorna*

**13 General location**
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

**14 Physical Features**

<table>
<thead>
<tr>
<th>Soil &amp; Geology</th>
<th>acidic, clay, mud, peat, sand, sedimentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geomorphology and Landscape</td>
<td>cliffs, coastal, estuary, floodplain, intertidal sediments (including sandflat/mudflat), island, lagoon, lowland, subtidal sediments (including sandbank/mudbank), valley</td>
</tr>
<tr>
<td>Nutrient status</td>
<td>no information</td>
</tr>
<tr>
<td>pH</td>
<td>circumneutral</td>
</tr>
<tr>
<td>Salinity</td>
<td>brackish / mixosaline, fresh, saline / euhaline</td>
</tr>
<tr>
<td>Soil</td>
<td>mainly mineral</td>
</tr>
<tr>
<td>Water permanence</td>
<td>usually permanent</td>
</tr>
<tr>
<td>Summary of main climatic features</td>
<td>Rainy, temperate climate with a mild winter and periodic frost. Mean minimum temperature approximately 8.5°C. Mean maximum temperature approximately 15.7°C. Mean annual precipitation approximately 766.4mm, with a winter maximum.</td>
</tr>
</tbody>
</table>

**15 Hydrological values**
Maintenance of water quality (removal of nutrients)

**16 Ecological features**
Sub-tidal 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 pavonina*. 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 cord grass *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-bright *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
Keysworth and in the lower Frome and Piddle valleys there is fresh water 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 the 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.

17  Noteworthy flora

Nationally important species occurring on the site.

Higher Plants.
Scorzonera humilis, Potamogeton acutifolius, Alopencurus bulbosus, Oenanthe silaifolia, Myocurus minimus, Suaeda vera, Zostera angustifolia, Zostera noltii, Isoetes echinospora and Elatine hexandra.

18  Noteworthy fauna

Birds

Species occurring at levels of international importance (as identified at designation):

Over winter the area regularly supports:
Black-tailed Godwit, Limosa limosa limosa
(Western Europe/W Africa) 1576 individuals, representing an average of 2.4% of the population (5 year peak mean 1992/93-1996/97)

Shelduck, Tadorna tadorna
(Northwestern Europe) 3569 individuals, representing an average of 1.2% of the population (4 year peak mean 1993/4-1996/7)

Species currently occurring at levels of national importance:

During the breeding season the area regularly supports:
Common Tern, Sterna hirundo
(Northern/Eastern Europe (breeding)) 155 pairs, representing an average of 1.3% of the GB population (5 year mean 1993-1997)

Mediterranean Gull, Larus melanocephalus
5 pairs, representing an average of at least 22.7% of the GB population (5 year mean 1993-1997)

Over winter the area regularly supports:
Avocet, Recurvirostra avosetta
(Western Europe/Western Mediterranean (breeding)) 459 individuals, representing an average of 36.1% of the GB population (5 year peak mean 1992/93-1996/97)

Assemblages of international importance:

Over winter the area regularly supports:
25091 waterfowl (5 year peak mean 1991/92-1995/96)

Nationally important species occurring on the site.

Invertebrates.
Saldfala setulosa, Piesma quadratum and Limonia bezii.

19  Social and Cultural Values

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Archaeological/historical site
Conservation education
Current scientific research
Fisheries production
Livestock grazing
Non-consuming recreation
Sport fishing
Sport hunting
Tourism
Traditional cultural
Transportation/navigation

20 Land tenure/ownership

<table>
<thead>
<tr>
<th>Ownership category</th>
<th>On-Site</th>
<th>Off-Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-governmental organisation</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Local authority, municipality etc.</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>National/Crown estate</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Private</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

21 Current land use

<table>
<thead>
<tr>
<th>Activity</th>
<th>On-Site</th>
<th>Off-Site</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature conservation</td>
<td>+</td>
<td>+</td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Tourism</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Recreation</td>
<td>+</td>
<td>+</td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Research</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Collection of non-timber natural products: (unspecified)</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Commercial forestry</td>
<td></td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Fishing: commercial</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Fishing: recreational/sport</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Marine/saltwater aquaculture</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Gathering of shellfish</td>
<td>+</td>
<td>+</td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Bait collection</td>
<td>+</td>
<td>+</td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Grazing (unspecified)</td>
<td>+</td>
<td></td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Permanent pastoral agriculture</td>
<td>+</td>
<td></td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Hunting: recreational/sport</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Sewage treatment/disposal</td>
<td>+</td>
<td>+</td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Harbour/port</td>
<td>+</td>
<td></td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Oil/gas exploration</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Oil/gas production</td>
<td>+</td>
<td></td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Transport route</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Urban development</td>
<td>+</td>
<td></td>
<td>Large-Scale</td>
</tr>
<tr>
<td>Military activities</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
</tbody>
</table>

22 Adverse factors affecting the ecological character of the site

<table>
<thead>
<tr>
<th>Activity</th>
<th>On-Site</th>
<th>Off-Site</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage/reclamation: (unspecified)</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Dredging</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Introduction/invasion of exotic animal species</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Introduction/invasion of exotic plant species</td>
<td>+</td>
<td></td>
<td>Small-Scale</td>
</tr>
<tr>
<td>Pollution - domestic sewage</td>
<td>+</td>
<td>+</td>
<td>Small-Scale</td>
</tr>
</tbody>
</table>
## 23 Conservation measures taken

<table>
<thead>
<tr>
<th>Conservation measure</th>
<th>On-site</th>
<th>Off-site</th>
</tr>
</thead>
<tbody>
<tr>
<td>NNR</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>SPA</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Land owned by a NGO for nature conservation</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Management agreement</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Site management statement/plan implemented</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ASSI</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

## 24 Conservation measures proposed but not yet implemented

see below

### Site vulnerability and management statement

Poole Harbour has been impacted by the growth of an urban conurbation along its north shore, together with associated infrastructure, and by development of a commercial port, marinas and moorings. In recent years, further encroachment by development has been almost halted by changes in national and local policy. Most of Poole Harbour falls under the authority of Poole Harbour Commissioners and management policies have been in place since 1987. Recreation pressures on the site are being addressed by an Aquatic Management (Zoning) Plan. Dredging to provide navigation may impact on intertidal habitat and will be addressed through national policy requirements on sustainable coastal management. There is recent evidence that Manilla clam is becoming naturalised within the Harbour following small scale commercial introduction and any potential problems will be examined by the steering group. Die back of Spartina anglica is also affecting the site and has been monitored by the Institute of Terrestrial Ecology.

Several sewage treatment plants discharge into the Harbour and the effect of these on water quality is monitored by the Environment Agency. Wytch Farm oilfield has facilities within the site; their maintenance and any risks from oil spills are dealt with according to agreed method statements and oil spill contingency plans. Recent studies have addressed the effects of bait digging in the Harbour which has local impacts. Most of the wildfowling in the Harbour is under control of the Dorset Wildfowlers Association and is regulated by a management plan that identifies non shooting areas. The impact of drainage on grazing marshes is being addressed through Water level Management Plans.

## 25 Current scientific research/survey/monitoring and facilities

### 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.Dyrrynda beginning in the 1980s.


### Miscellaneous.
Poole Harbour science and monitoring group is being established to investigate various issues, particularly those which may arise as a result of the Aquatic Management Plan.

26 Current conservation education
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.

27 Current recreation and tourism
Infra structure 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 sport 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 - ie on saltmarsh above high water - but much of the shoreline above MWH is controlled by conservation organisations.

28 Functional jurisdiction
Department of the Environment, Transport and the Regions

29 Management authority
English Nature

30 Bibliography


Reference should also be made to Country Agencies Management Plans for sites that are within National Nature Reserves.