

RAMSAR INFORMATION SHEET

FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Site reference number **7UK139**

1 **Compilation date** Nov 1999

2 **Country** UK (England)

3 **Name of wetland** Arun Valley

4 **Site centre location:** Latitude: 50 55 05 N Longitude: 00 31 40 W

5 **Altitude** 1-30m

6 **Area (ha)** 528.62

7 Overview

The Arun Valley consists of three component Sites of Special Scientific Interest. Together these sites comprise an area of wet meadows on the floodplain of the River Arun between Pulborough and Amberley. The neutral wet grassland, which is subject to winter and occasional summer flooding, is dissected by a network of ditches, several of which support rich aquatic flora and invertebrate fauna. The area is of outstanding ornithological importance notably for wintering wildfowl and breeding waders.

8 Wetland type Inland wetland, Human-made wetland

Code	Name	% Area
Ts	Freshwater marshes / pools: seasonal / intermittent	95
9	Canals and drainage channels	4
Other	Broadleaved woodland	1

9 Ramsar Criteria 2, 3, 5

10 Map of the site ✓

11 Compiler Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK

Telephone/Fax : +44(0) 1733 562626 / +44(0) 1733 555948

12 Justification of criteria

Ramsar criterion 2

The site holds seven wetland invertebrate species listed in the British Red Data Book as threatened. One of these, *Psuedamnicola confusa*, is considered to be endangered. The site also supports four nationally rare and four nationally scarce plant species.

Ramsar criterion 3

In addition to the Red Data Book invertebrate and plant species, the ditches intersecting the site have a particularly diverse and rich flora. All five British *Lemna* species, all five *Rorippa* species, and all three British water milfoils (*Myriophyllum* species), all but one of the seven British water dropworts (*Oenanthe* species), and two-thirds of the British pondweeds (*Potamogeton* species) can be found on site.

Ramsar criterion 5

Internationally important waterfowl assemblage (greater than 20,000 birds)

13 General location

Nearest town/city

Chichester

The site lies between Pulborough and Amberley within the River Arun valley in West Sussex.

Administrative Region: West Sussex

14 Physical Features

Soil & Geology	Acidic, Sandstone, Sand, Sedimentary, Neutral, Clay, Alluvium, Peat
Geomorphology and Landscape	Lowland, Floodplain
Nutrient status	Eutrophic
pH	Acid, Circumneutral
Salinity	Fresh
Soil	Mainly mineral (some peat)
Water permanence	Usually seasonal/intermittant
Summary of main climatic features	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.

15 Hydrological values

Maintenance of water quality (removal of nutrients)

Water level management plans exist for both Amberley Wildbrooks and Waltham Brooks. A water level management plan will be pursued for Pullborough in due course.

16 Ecological features

The site comprises an area of wet meadow on the floodplain of the River Arun. The wet neutral grassland is subject to winter and occasional summer flooding. The site is dissected by a network of wet ditches which support a rich aquatic flora and invetebrate fauna. Variation in the chemical status of the water has resulted in an exceptionally high diversity of aquatic plant species in some of the ditches.

17 Noteworthy flora

Nationally important species occuring on the site.

Higher plants:

Carex vulpina, *Leersia oryzoides*, *Potamogeton acutifolius*, *Myriophyllum verticillatum*, *Oenanthe silafolia*, *Sium latifolium*, *Thelypteris palustris*

18 Noteworthy fauna

Birds

Assemblages of international importance:

Over the winter the area regularly supports:

27 241 waterfowl (5 year peak mean for 1992/93 to 1996/97)

Species currently occurring at levels of national importance:

Over winter the area regularly supports:

Bewick`s Swan, *Cygnus columbianus bewickii*
(Western Siberia/Northeastern & Northwestern Europe)

115 individuals, representing an average of 1.6% of the GB population (5 year peak mean for 1992/93 to 1996/97)

Ruff, *Philomachus pugnax*
(Western Africa (wintering))

40 individuals, representing an average of 5.8% of the GB population (5 year peak mean for 1992/93 to 1996/97)

Shoveler, *Anas clypeata*
(Northwestern/Central Europe)

260 individuals, representing an average of 2.6 of the GB population (5 year peak mean for 1992/93 to 1996/97)

Wigeon, *Anas penelope*
(Western Siberia/Northwestern & Northeastern Europe)

4723 individuals, representing an average of 1.7% of the GB population (5 year peak mean for 1992/93 to 1996/97)

Teal, *Anas crecca*
(Northwestern Europe)

2309 individuals, representing an average of 1.7% of the GB population (5 year peak mean for 1992/93 to 1996/97)

Pintail, *Anas acuta*
(Northwestern Europe)

389 individuals, representing an average of 1.4% of the GB population (5 year peak mean for 1992/93 to 1996/97)

Invertebrates.

Nationally important species occurring on the site.

Psuedannicola confusa, *Sciomyza drymyzina*, *Anisus vorticulus*, *Psidium pseudophaerium*, *Libellula fulva*, *Hydrophilus piceus*, *Paraphotistus nigricornis*

19 Social and Cultural Values

Aesthetic
Conservation education
Current scientific research
Livestock grazing
Sport hunting
Tourism

20 Land tenure/ownership

Ownership category	On-Site	Off-Site
Non-governmental organisation	+	+
Private	+	+

21 Current land use

Activity	On-Site	Off-Site	Scale
Nature conservation	+	+	Large-scale
Tourism	+	+	Small-scale
Recreation	+	+	Small-scale
Permanent arable agriculture		+	Small-scale
Permanent pastoral agriculture	+	+	Large-scale
Hunting: recreational/sport	+	+	Small-scale
Flood control	+	+	Small-scale

22 Adverse factors affecting the ecological character of the site

Activity	On-Site	Off-Site	Scale
Disturbance to vegetation community through cutting / clearing		+	Small-scale
Drainage/reclamation for agriculture	+	+	Small-scale
Pollution - fertilisers	+	+	Small-scale
Pollution - pesticides/agricultural runoff	+	+	Small-scale
Canalisation	+	+	Small-scale

23 Conservation measures taken

Conservation measure	On-site	Off-site
SSSI	+	+
SPA	+	
Land owned by a NGO for nature conservation	+	+
Site management statement/plan implemented	+	

24 Conservation measures proposed but not yet implemented

see below

Site vulnerability and management statement

Sympathetic management of the lowland wet grassland/grazing marsh is essential to achieving favourable conservation status for the Arun Valley SPA and Ramsar site. Much of the site is currently under appropriate management through organisations such as the Sussex Wildlife Trust and the RSPB. Nonetheless, influencing private landowners and their management will continue to be important, particularly with regard to areas used for wildfowling (the terms of which are under re-negotiation).

Appropriate summer grazing, control of fertiliser applications and ditch management are the key elements of management within the valley. Another vital facet of management is the hydrology of the area. Changes to the hydrology, including drainage improvements, canalisation of the River Arun (carried out in the late 1960s) and water abstraction from the Greensand aquifer for domestic use (since the mid 1970s) has led to the subsequent drying out of the area and an intensification of agricultural use. Agricultural changes, including an increase in area of silage cut and the application of fertiliser and pesticides, have had a profound effect on the bird and plant life of the whole valley. Management will continue to address these effects by water level control and grazing regimes, through Site Management Statements and 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.

Ongoing mollusc survey.

Habitat

Ditch survey (Pullborough & Amberley)

Water level and water quality monitoring is carried out by the Environment Agency, Sussex Wildlife Trust and the Royal Society for the Protection of Birds.

26 Current conservation education

The Sussex Wildlife Trust, RSPB and Arun Valley Countryside Project make use of the site for educational purposes, both formal and informal. Amberley Wildbrooks is also used for ongoing studies by Sussex University

A visitor centre and bird hides exist at Pullborough Brooks RSPB reserve. Some interpretation facilities are specifically targeted at school parties.

27 Current recreation and tourism

Recreational activities: bird-watching, walking.

Facilities provided: visitor centre, bird hides, tea shop.

28 Functional jurisdiction

Department of the Environment, Transport and the Regions

29 Management authority

English Nature
Sussex and Surrey Team
Howard House
31 High Street
Lewes
East Sussex BN7 2LU

30 Bibliography

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