



5 The natural environment

5.1 Introduction

The East Solent shoreline has a very high environmental value as demonstrated by the extensive areas designated for protection (Figures 20, 21 and 22). Although much of the environmental interest centres on the bird life and coastal habitats within the harbours, the open coast also has considerable importance including a number of sites of geological interest.

Shoreline management must take account of this environmental value and the significance of any proposed management operations on the environment must be understood. The area of potential impact is not restricted to any particular coastal zone - coastal operations may have a very limited impact, or may affect the environment at a considerable distance from the shoreline (e.g. changes to land drainage).

The present day environment is the result of many factors and processes, some relict and some on-going. Evolution of the environment occurs over a variety of time scales and the existing situation must be seen as transient rather than fixed. Appreciation of the transient nature of the environment is important to the SMP for two reasons:

- change to the shoreline may be beneficial as well as detrimental, and should not necessarily be resisted
- assessment of environmental impact must be based on existing trends for change as well as on present day conditions.

The following sections discuss environmental issues within different parts of the Plan area. Much of the information presented is derived from the Pagham Harbour to River Hamble study (HR Wallingford 1995a & b). That work is supplemented by further literature reviews, site visits and consultation with interested groups.

Within the East Solent there are many areas of high biological and geological value. This natural richness is reflected in the range of designations awarded to the sites. Table 6 lists and defines the designations and states whether they are of local, national, European or international importance. Further information, including exact boundaries, on each of the sites of national or international importance can be obtained from the citations prepared by English Nature.

5.2 Designated nature conservation areas

Pagham Harbour

Pagham Harbour is designated as an SSSI, CGRS, SPA and Ramsar site. West Sussex County Council (WSCC) manages the harbour and some outlying areas as an LNR. The area comprises extensive saltmarsh and tidal mudflats with a variety of surrounding habitats including shingle banks, open water, reed swamp and permanent wet grassland. The Harbour is of national importance for wintering wildfowl and wading birds and also for breeding birds both within the Harbour and on the surrounding grazing pasture. The site supports nationally important communities of plants and invertebrates.

In geological terms Pagham Harbour is a key site for coastal geomorphology both for the possession of classic shingle spit landforms and for the links that have been demonstrated between the coastal nearshore and offshore forms and sediments. The site is also of outstanding palaeobotanical interest due to the presence at its north eastern end of an area which yields abundant plant fossils from the London Clay. Indeed, two genera and some thirty species have only been found here.

Running north east from Pagham Harbour, the Bognor Reef SSSI is a long stretch of foreshore of great geological interest. The site includes an extensive area of rare vegetated shingle foreland and a small area of old sand dune with an interesting flora. Offshore of Pagham Harbour is the Mulberry Harbour marine SNCI, of interest for historic reasons and for its artificial reef communities.

Table 6 Definition of site designations

Designation	Acronym	Definition	Level of Importance
Ramsar Site	none	Wetland site recognised for its international importance for nature conservation especially as Waterfowl Habitat. Designated under 'The Ramsar Convention on Wetlands of International Importance'.	International
Special Protection Area	SPA	Internationally important area for birds. Designated under 'Council directive 79/409/EEC on the conservation of wild birds'.	European
Special Area of Conservation	SAC	Site designated under 'Council Directive 92/43/EEC', more commonly called the 'Habitats Directive'. The sites are selected to conserve natural habitats and wild flora and fauna of European importance. The aim is to sustain European biodiversity. Potential sites are currently being considered. The final list must be agreed by the Government with the EC. by June 1998 and by June 2004 all these sites must be designated.	European
Site of Special Scientific Interest	SSSI	An area of recognised scientific value in terms of its flora, fauna, geology or physiographical features.	National
Geological Conservation Review Site	GCRS	An SSSI site of geological interest which has been identified by the Geological Conservation Review.	National
National Nature Reserve	NNR	Area of natural interest designated under the 1981 Wildlife and Countryside Act.	National
Local Nature Reserve	LNR	Area of natural interest. Designated under the Countryside Act.	County.
Countryside Heritage Site	CHS	County designation (Hampshire only) with no attached statutory protection. Includes archaeological and natural interests.	County
Site of Importance for Nature Conservation	SINC	CHS's are currently undergoing a change of name to SINC. The name change is being conducted on a District to District basis. As yet, most of the sites in the SMP study area retain their original name. Equivalent to SNCI.	County
Site of Nature Conservation Interest	SNCI	County designation, usually designated because of wildlife value. No attached statutory protection. Equivalent to SINC.	County

Figure 21 (section a) Designated conservation areas – Hayling and Portsea Islands

Ref: V1-Fig 21

Figure 21 (section b) Designated conservation areas – Hayling and Portsea Islands

Ref: V1-Fig 21

Figure 22 (section a) Designated conservation areas – Portsmouth Harbour entrance to River Hamble

Figure 22 (section a) Designated conservation areas – Portsmouth Harbour entrance to River Hamble



Selsey East Beach to East Head

Selsey East Beach SSSI (designated for its geological interest and hence also a GCRS) has exposed sequences of freshwater and estuarine sediments of Ipswichian Interglacial Age that are a unique source of vertebrate fossils.

Bracklesham Bay is of significant biological interest. Its designation as an SSSI also reflects high geological importance and for this reason it is also a GCRS. The exposed clays on the beach were deposited in shallow seas 45 million years ago and contain fossilised shells and plants. Younger rocks of about 1.5 million years BP are exposed at the southern end of the Bracklesham Bay SSSI and are a unique source of vertebrate fossils.

Crablands Farm Meadow SNCI is a low lying area of wet grassland and scattered scrub located just inland of the eastern extremity of Bracklesham Bay SSSI. It is of general botanical interest and an important site for breeding, wintering and migrant birds.

West Wittering Beach SNCI is located just to the east of Chichester Harbour mouth. It comprises a small area of vegetated sand and shingle which supports a number of uncommon and notable species. Immediately to the east of this site the Bracklesham Bay SSSI extends along the length of the shore as far as Selsey. This site consists of a long stretch of coast with a variety of habitats including a small area of salt marsh, shingle bank, rifes (wide flowing ditches) and associated reed beds and some rough unimproved pastures subject to seasonal flooding. In terms of size and wildlife interest the pastures are the most important habitat as they represent a relict habitat type now scarce within the county due to the impact of agricultural activity.

East Head, Eastoke Point and the entrance to Chichester Harbour all fall within the Chichester Harbour SSSI, SPA and Ramsar site. East Head is a National Trust holding with a sand dune and shingle system of geomorphological interest and is designated as a GCRS.

Offshore of Bracklesham is the Bracklesham Balls marine SNCI of interest for the unusual spherical and hemispherical boulders found there.

Hayling Island

Sandy Point LNR on Hayling Island is considered to be the best example of vegetated sand and shingle in Hampshire and also contains brackish water habitats. It is managed by Hampshire County Council (HCC) and is to be designated as a LNR.

Gunner Point CHS is located at the west end of Hayling Island. It is the most extensive sand-dune system in Hampshire comprising both dune grasslands and un-vegetated sand and shingle. In addition, it possesses substantial geomorphological interest exhibiting a number of unusual coastal landform features. Immediately adjacent to Gunner Point are the scrubland dunes of Sinah Common LNR, managed by the Hampshire and Isle of Wight Wildlife Trust. Gunner Point and Sinah Common contain sufficient interest to qualify as an SSSI. The Kench LNR is within the small embayment on the Hayling Island shore and is managed by HCC.

Langstone Harbour entrance channel is part of the Langstone Harbour SSSI, SPA and Ramsar site

Portsea Island

There are no designated conservation sites along the south coast of Portsea Island, although there is an area of invertebrate interest along the Fort Cumberland shingle beach frontage.

Portsmouth Harbour to River Hamble

Gilkicker Point is an extensive area of natural coastal landform and vegetation, and includes Gilkicker Fort. The site includes open shingle communities, closed grassland of several types and brackish pools. It is rich in plants and invertebrates and is designated as a CHS. The area qualifies for consideration as an SSSI.

The proposed SPA also extends along the West Solent coast up to Lee-on-the-Solent. The site qualifies by supporting nationally important breeding populations of several tern species internationally important numbers of Brent Geese and Blacktailed Godwit and by regularly supporting over 20,000 waterfowl in winter.

Gilkicker Lagoon is an SSSI which lies within the Gilkicker Point CHS. It is a saline lagoon, a rare habitat in Britain, supporting a specialised flora and fauna including five nationally rare invertebrates and one nationally rare charophyte. Indeed one of the invertebrates, the starlet sea anemone is the only British marine invertebrate to be included in the relevant International Union for the Conservation of Nature and Natural Resources, Red Data Book (IUCN, 1993) which documents rare and endangered species.

Browndown SSSI is an extensive shingle foreland comprising of a sequence of shingle ridges which support three principal plant communities. The first of these, a scrub community of gorse, oak, bramble and rose is widespread, but the ling/heather/dwarf gorse/lichen community is probably not found elsewhere in lowland Britain. Several rare plants are found within the site which also possesses a rich invertebrate fauna including a range of species specialised to this habitat and, therefore, rare in southern England.

The foreshore is of local significance biologically in supporting extensive populations of eelgrass and American hard-shelled clam in the sandy and muddy/gravelly substrate respectively.

The stretch of coastal frontage running from Lee-on-the-Solent to the lower estuary of the River Hamble is part of the Lee-on-the-Solent to Itchen Estuary SSSI. This SSSI extends from the beach head to the mean low water mark, with the exception of Hook Links, Hook Lake, Bunny Meadows and Hamble Common, which extend further inland. Collectively the area contains a wide range of habitats including intertidal marshes, vegetated shingle, saltmarsh, reedbeds, fen meadows and marshy grassland. These support a varied range of flora and fauna, some of which is now highly restricted in distribution in England. The area as a whole also contains vital pre-migratory feeding grounds for some species of wetland birds and it is of considerable ornithological importance. The cliffs north of Hill Head provide important exposures of terrace gravel of the former Solent river system, contributing significantly to the understanding of the geomorphological processes in the area. In palaeontological terms, the first British bird fossils of the Mid-Eocene age were found at the Lee-on-The-Solent site. The site is also especially rich in fossil fish remains, including sharks, rays, chimaeroids and teleosts.

Titchfield Haven SSSI is a freshwater wetland which flanks the lower reaches of the River Meon. The wetland contains a variety of habitat types including, the river, reed beds, unimproved meadows, patches of fen, drainage ditches and pools. It is an important area for surface feeding ducks and also supports a breeding community of wetland birds such as Reed and Sedge Warblers. Titchfield Haven is also designated as an NNR.

HCC manage much of the shoreline from the River Meon to the River Hamble. Their control over this frontage ensures that no unsuitable development will occur.

5.3 Future designations

The abundance of sites subject to various environmental designations provides ample testimony to the region's conservation significance and value to wildlife. The significance of the area in conservation terms has been recognised in proposals to designate various parts as a Ramsar site, SPA, and SAC. These are shown on [Figures 20, 21 and 22](#). In addition, there are a number of sites of importance that are under review for SSSI status; as these are still at an early stage of the designation process they have not been indicated on the maps.

The proposed Solent and Southampton Water Ramsar site extends along the West Solent coast up to Lee-on-the-Solent, plus an area at Gilkicker Point. This area qualifies under several criteria of the Ramsar Convention in terms of the range of habitat types, the significance of the flora and invertebrate fauna assemblage and its ability to regularly support internationally important numbers of waterfowl both in terms of numbers of specific species and total numbers of individuals.

Two areas, Solent and Isle of Wight Lagoons and Solent Maritime, are currently being considered for designation as SAC because they contain habitat types and/or species which are rare or threatened within a European context. Within the SMP area the proposed Solent Maritime SAC is separated into a western component along the Fareham coast from Solent Breezes to the River Hamble, and an eastern component from



Langstone Harbour to Chichester Harbour. Gilkicker Lagoon is included in the proposed Solent and Isle of Wight Lagoons SAC.

5.4 Responsibilities and restrictions due to conservation designations

Official conservation designations assigned to the harbours have implications for SMP. SSSIs, SPAs and SACs have statutory protection. An overview of the legislation relating to these sites and the relevant restrictions are given below.

SSSI, NNR and LNR

Designation as an SSSI is accompanied by a standard list of 'potentially damaging operations', which usually include operations such as the 'erection of sea defences' and the 'undertaking of engineering works'. Owners or occupiers must not carry out potentially damaging operations (or permit them to be carried out) on an SSSI without giving written notice of the proposed operation to English Nature. Works may only legally proceed if written consent is obtained, or the operations comply with a management agreement previously drawn up with the nature conservation agency, or four months have elapsed since written notice was given. Otherwise, a criminal offence is committed if a 'potentially damaging operation' is carried out without reasonable excuse. The Wildlife and Countryside Act states that there is a reasonable excuse if the operation is an emergency one (provided that the nature conservation agency is notified as soon as practicable) or is one for which planning permission has been granted.

If English Nature seriously objects to the proposals and the objections cannot be resolved by negotiation within the four month period, English Nature may apply to the Secretary of State for the Environment for a Nature Conservation Order. Nature conservation orders are comparatively rare, and their main effect is to extend the period of delay to a maximum of 12 months, so that the nature conservation agency has more time to negotiate a management agreement or to consider compulsory purchase.

Planning authorities must consult English Nature about applications both within an SSSI or operations outside the SSSI which may have a significant impact.

European Sites (SPA/SAC)

Legislation to implement EC Habitats Directive 1992 has been introduced in the United Kingdom by the Conservation (Natural Habitats, &c) Regulations 1994, SI 1994/2716. This regulation covers both SPAs and SACs, which are collectively termed 'European Sites'. Planning authorities have to follow a set procedure when considering proposals for development on European Sites. Developments include coast protection works and new flood protection works. This procedure is summarised in the flow chart in PPG9.

The regulation stipulates that any proposed scheme likely to have a significant effect on a European Site should be appropriately assessed to determine its impact on the conservation objectives. The competent authority may agree to the plan if the integrity of the site is not jeopardised. If the assessment indicates negative impacts but the competent authorities decide that scheme should go ahead due to overriding public interest, compensatory measures must be taken to ensure that the overall value of Natura 2000 (the European habitat network of SPAs and SACs) is protected. The European Commission should be informed of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat and/or priority species listed in the Annexes to the Directive, the only considerations which may be raised are those relating to human health or public safety, or to beneficial consequences of primary importance for the environment.

Permitted development rights under the Town and Country Planning (General Permitted Development) Order 1995, such as the Environment Agency for flood protection works, may not be exercised if they are likely to have a significant effect on a European Site unless they have been approved by the local Planning Authority. The Planning Authority has the power to grant permission for the works but it must consult English Nature for its opinion and consider their view when making the final decision.

At present SACs are in the nomination stage. Part of the open coastline, along the south of Hayling Island and within the Solent form part of a nominated site called Solent Maritime. The Government advises in Planning Policy Guidance PPG9, *Nature Conservation*, that proposed SAC's should be protected as a matter of policy in the same way as designated sites.

Environmental assessment to support planning application

Under EC directive 85/337/EEC coastal and flood defence works must be subject to an environmental assessment if they are likely to have a significant effect on the environment. If the works require planning permission or are within a European Site (SAC or SPA) the Local Planning Authority decides whether an environmental assessment is necessary.

5.5 Implications for shoreline management

1. Significant lengths of the open coastline are of national and international nature conservation value. New coastal defence structures and improvements to existing defences may only be acceptable if there is an overriding public interest that can be shown to justify the potential impact on habitats or geological features. European designated sites also require that compensatory measures are taken for any significant habitat loss or damage.
2. Where new defences or improvements to existing defences are required it is important that full consideration is given to nature and geological conservation in the concept, planning, design, implementation and maintenance stages. There should be a general policy not to disrupt natural coastal processes except where life or important man-made or natural assets are at risk.
3. Coastal defence strategies should be compatible with the relevant management plans for designated conservation areas.
4. The EC Habitats Directive 1992 requires that European sites (SPAs and SACs) are managed to ensure that the habitats and species for which they were designated are safeguarded. There is therefore a need for a strategic approach to shoreline management which makes advance provision for habitats and communities to migrate as the shoreline evolves (e.g. conducting managed retreat to replace saltmarsh which has been eroded).
5. English Nature should be consulted at the outset of any proposal for shoreline management operations to determine whether the operation are likely to cause environmental damage and to determine whether alternative approaches may be more acceptable.