SHOREHAM BEACH

Local Nature Reserve

MANAGEMENT PLAN

2006-2011

Julian Morgan BA(Hons) TechIOSH

Index

Adur District Council
Civic Centre
Ham Road
Shoreham-by-Sea
West Sussex
BN43 6PR

Tel: 01273 263000
Fax: 01273 263203

1. Site Details

1.1 Location

Shoreham Beach Local Nature Reserve lies on the seaward side of a shingle spit, created by longshore drift, at the mouth of the River Adur on the West Sussex coast. The beach supports several large areas of vegetated shingle - an extremely rare and fragile habitat with a very limited distribution in Great Britain.

Area:	11.2 Ha
Grid Reference:	TQ 217044
Owner:	Adur District Council
Planning Authority:	Adur District Council
District:	Adur in West Sussex
Conservation Status:	Statutory Local Nature Reserve Site of Nature Conservation Importance in Adur District Council Local Plan
Nature of Legal Interest:	Freehold by Adur District Council Environment Agency have access rights for sea defence works
Access:	There is full, free public access to the entire site via the access points listed in section 1.5.

1.2 Site Conservation Interest

The site, a vegetated shingle beach, was identified and designated as a Site of Nature Conservation Importance (SNCI) in May of 1992. The main interest of the site is its specialised shingle flora, which is a nationally rare habitat type.

Further to the Rio de Janeiro Convention on Biological Diversity (1992), the UK Biodiversity Strategy and Action Plan was published in 1994 and the Vegetated Shingle Habitat Action Plan in 1999.

1.3 Local Nature Reserve Status

The designation of Shoreham Beach as a Local Nature Reserve (LNR) in July 2002 and its declaration in July 2006 acknowledges its high natural interest and local importance, and ensures that the site is managed so that the features that convey its special interest are maintained for future generations.

However, the Local Nature Reserve is as much about people as wildlife and there is a great opportunity for people to become involved in the management of their local environment and for educational events and public open days.

1.4 Site Use

The site is used by many groups, for many purposes, including the following:

- Beach huts / owners
- Water sports including windsurfing and kite-surfing
- Walking (including dog walking)
- Bird watching
- Wildlife / plant interest
- Summer beach users (bathing, picnic, family)

1.5 Access

There is full, free public access to the entire site. Local residents generally visit the site on foot, via rear gardens and the following pedestrian access points:

- Fort Haven, at the Eastern end.

- Along Old Fort Road, opposite The Burrells*, Winterton Way and Shingle Road*.

- From Beach Road, opposite Ferry Road* and Flag Square.

- From Weald Dyke* to Widewater lagoon there is continuous pedestrian access.

All access marked * has disabled access to the beach also.

Other residents and visitors travel by car and parking and public conveniences are available at Fort Haven (Old Fort), Beach Green and Widewater car parks. Free weekday parking is available from Weald Dyke to Widewater Lagoon.

There are no proposals to close any of the existing access points. There are no current restrictions relating to access for dogs.

The Environment Agency has access for necessary sea defence work along the entire site.

1.6 Site Boundary

A plan showing the boundary of the beach designated as a Local Nature Reserve is shown on map 1 in Appendix C.

2. Site Description

2.1 Biological Importance

Vegetated shingle is recognised as an important habitat for conservation within the UK (UK Biodiversity Steering Group Report 1995) and is listed in Annex 1 of the EC Habitats Directive as a Habitat of International Conservation Importance. See appendix F for further details.

2.2 Plant Communities

The plant communities within Shoreham Beach vary with the amount of disturbance and the relative stability of the shingle. Due to the change of habitat from water level to northern boundary, they are generally found in three bands parallel with the foreshore.

On the seaward edge, the shingle is less stable as movement of the shingle occurs due to wave action (longshore drift). This habitat favours the common orache (*Atriplex patula*) and spear-leaved orache (*Atriplex prostrata*), fast growing annuals which rapidly re-grow after disturbance.

Behind this band of annuals lie moderately stable areas of shingle. The predominant species, described as the pioneer community since they have colonised the harsh territory above the strandline, are sea kale (*Crambe maritima*), sea beet (*Beta vulgaris*) and curled dock (*Rumex crispus*).

Further inland, the shingle becomes more stable and there is a corresponding increase in the number of species. The 'maritime' species include; sea campion (*Silene maritima*), Danish scurvy-grass (*Cochlearia danica*), buck's-horn plantain (*Plantago coronopus*) yellow horned poppy *(Glaucium flavum*), and english stonecrop (*Sedum anglicum*). On stable shingle between houses and along property bounding the northern edge, grasses including soft brome (*Bromus mollis*), red fescue (*Festuca rubra*), cock's foot (*Dactylis glomerata*) and barren brome *(Bromus steilis*) have established. Other important species include Viper's Bugloss (Echium vulgare) and Bristly Oxtougue (Picris Echiodes).

Also tolerant 'land' herbs such as ribwort plantain (*Plantago lanceolate*) and those adapted to dry, bare places, such as ivy-leaved toadflax (*Cymbalaria muralis*) red valerian *(Centranthus ruber*) have established. There are many other species not named. The distribution is variable along the length of the site, with the most dense area of vegetation at the eastern end, adjacent to the properties on Old Fort Road and the Old Fort. Contributary to this density is over-enrichment from properties adjacent to the northern border.

Of particular interest is Childing pink, a Red List species, and several colonies of starry clover (*Trifolium stellatum*) an attractive visitor to these shores..

2.3 Bird Communities

The site is in close proximity to the RSPB reserve in the Adur Estuary SSSI (re-notified 1987) and Shoreham Beach represents an important high tide roosting area for wading birds that have fed on the mud flats within the reserve. The beach also offers good breeding habitat for species such as the ringed plover and little tern, but few nest sites have been identified in the last decade, possibly due to the high levels of disturbance from dogs and people in early spring and summer.

2.4 Other Fauna

There are many invertebrates associated with vegetated shingle that are rare or endangered through habitat destruction. A notable example is the toadflax brocade moth, which was recorded on Shoreham Beach in 1999.

2.5 Threats

The main threats to this habitat are:

a) Loss of beach to structures and development.

b) Predicted future loss of beach due to rise in sea level and increased storm weather due to global warming and the greenhouse effect.

c) Degradation of and damage to habitat and species by:

- Introduction of alien species
- Nutrient enrichment - mainly caused by dumping of garden waste and the residue of fires
- Disturbance, including vegetation stripping
- Compaction
- Recreational use, if not sympathetic to the site

d) Future sea defence operations being undertaken without consideration for the sensitivity of the ecology of the site.

e) Use of the beach as a leisure facility, for the community or commercially, if not well managed with similar consideration.

2.6 Site Protection

Shoreham Beach has been identified as a Local Nature Reserve (LNR) and Site of Nature Conservation Importance (SNCI) on the basis of its shingle flora. As a LNR the site has no statutory protection, but should be subject to byelaws, which will be used to help protect the shingle.

The area is covered by the South Downs Shoreline Management Plan 2006.

3. Community Involvement

3.1 Project Background

In 1997 the 'Shoreham Beach Conservation Liaison Group' was set up to consider the management and future of the vegetated shingle beach and the Old Fort and Lookout Tower. The group comprised members of the Shoreham Beach Residents' Association, Adur District Council, West Sussex County Council with input from other bodies and individuals such as the Environment Agency, Maritime Volunteer Service, Sussex Wildlife Trust, and Shoreham District Ornithological Society. From the outset it was the philosophy of Adur District Council and West Sussex County Council that the initiative should be developed as a local community project with residents and local groups taking the lead. In 2002 the steering group disbanded as the boundary disputes proved more intractable that expected. In October 2005 a clearance of old sea defences and other obstacles from the beach resulted in the boundary disputes being resolved. This brings us to the declaration in July 2006.

3.2 Survey and Public Consultation - Phase 1

In January of 1998 Dolphin Ecological Surveys undertook a research project to assemble available data about the site with a view to developing a management strategy for the habitat.

A public survey about Shoreham Beach was published in Adur Outlook (delivered to every home and business in the district) during 1999. 78% supported Local Nature Reserve status for the beach.

3.3 Shoreham Old Fort and Beach Conservation Project - Phase 2

Commenced in August 2000 as part of the Shoreham Maritime Project. The involvement of local residents and local organisations was given a high priority. Project Manager(s) were employed to implement the aims.

A group comprised of local residents, council officers and interest groups was established in January 2001 with the aim of taking an active role in the management and sustainability of the overall project for the Old Fort and Beach.

A series of public meetings, to consider the impact of LNR status, were held with representatives of the local community. A survey at an open meeting in June 2001 found 89% supported the objectives and stated the following as of high importance:

- Better protection for the vegetated shingle beach through Local Nature Reserve designation.

- Better information should be provided to encourage a better understanding of the beach - in particular its wildlife and plant life. This could be in the form of information boards, leaflets, guided walks etc.

3.4 Committee Approval

A report regarding the beach was placed before the Leisure and Amenities Committee at their meeting of 21st July 1998 and the Committee approved in principle the eventual designation of Shoreham Beach SNCI as a Local Nature Reserve.

A further report to the Community Services Committee of 4th December 2001 gained approval for the designation to proceed. Full Council ratified this on 16th April 2002. The updated management plan was approved in committee on 20 June 2006.

3.5 West Sussex Vegetated Shingle Project

In 1999 English Nature initiated a Vegetated Shingle Project in West Sussex. The aim of the project was 1) to raise the level of public awareness of the international importance of the habitat, 2) to end the damage being caused to the habitat, and 3) to help set up mechanisms to protect the habitat for the future. This multi-authority-funded project employed a Vegetated Shingle Officer to facilitate these aims. The post has now been subsumed into the Nature Coast Project Officer's role, a collaboration between West Sussex County Council and English Nature. The holder of this post has done much in continuing the work started in 1999.

4. Site Management

4.1 Management Objectives:

a) To protect the habitat from encroachment and development.

b) To maximise the specialised plant communities of the shingle beach habitat.

c) To protect the specialised plant communities from damage caused by:

- the stripping of vegetation;
- the enrichment of the growing medium due to dumping of garden and other waste.

d) To protect rare species of plants and invertebrates.

e) To protect the interests of breeding, nesting and roosting birds.

f) To support the educational use of the site.

g) To further address issues of access for less able bodied visitors.

h) To support continued leisure use of the beach and to minimise conflict with nature conservation issues.

i) To halt the advance of and to progress towards the control of invasive species which are threatening to the habitat of the specialised shingle beach plant communities.

j) To protect the site from unnecessary damage caused by heavy vehicle damage e.g. during sea defence operations.

k) To minimise adverse effects upon the ecology and of the site due to possible future sea defence operations.

l) To minimise the impact of bonfire and fire sites across the beach.

All the above objectives to be carried out whilst recognising the Environment Agency's permissive and emergency powers, to ensure adequate coastal defence to protect both built property and human life, and without compromising any overriding need for current, proposed or future coastal defence works.

As regards shingle removal, it is considered that any proposed shingle removal should not take place from within the boundary of the Local Nature Reserve.

4.2 Main Management Operations

a) Monitor and act upon the presence of invasive plant species damaging to the specialised shingle plant communities.

b) Monitor and act upon damage caused by:

- the stripping of vegetation;

- the over enrichment of the growing medium due to dumping of garden and other waste.

c) Support the re-vegetation of areas of shingle that have been subject to previous disturbance, clearance or enrichment by appropriate specialised shingle plant communities.

d) Establish a programme of species monitoring with botanical, ornithological and invertebrate societies.

e) Monitor beach profile and accretion rates (build up from long shore drift).

f) To liaise with the Environment Agency regarding any potential, future sea defence operations.

g) Erect signage and demarcation at sensitive periods to identify and protect nesting bird sites.

h) Provide interpretation describing the plant, insect and bird habitat. Including advice for conserving the habitat.

i) Co-ordinate educational visits to the beach and act as a contact for other information relating to the beach.

j) Make available resources for use in schools and for interpretation on site.

k) Disseminate information via Adur District Council Internet site and support and promote the internet site being developed by the West Sussex vegetated shingle project.

l) Support existing beach litter clearance operations with volunteer task days.

m) Raise awareness of the value of the beach and the sensitivity of the species and habitat to leisure users of the site and to encourage willingness to accept a code of conduct.

n) To designate authorised bonfire sites and establish guidelines for their use.

While the aim is to fulfil all the above, a number of factors will influence the timescale, including building partnerships with others and seeking finance.

5. Management Plan - Implementation and Direction

5.1 LNR Management Group

It is proposed that the management of the beach be led by an LNR Management Group. The group will include, amongst others to be decided by the group, representatives from the following interest groups and organisations;

- Shoreham Beach Residents Association
- An Adur District Council Officer
- A Councillor representing Marine Ward
- West Sussex County Council
- English Nature
- Environment Agency
- Port Authority
- Sussex Wildlife Trust
- Sussex Botanical Recording Society
- British Trust for Conservation Volunteers
- Such individuals as may be invited

The Corporate and Public Safety department of Adur District Council will start to implement the management plan by forming the Management Group through invitation and initiating renovation work and funding applications in association with the Nature Coast Officer.

5.2 The Friends of Shoreham Beach LNR

It is proposed that the Management Group set up a support society called The friends Shoreham Beach LNR. Membership is open to all interested parties and residents and will set its own agenda based upon the Local Nature Reserve Objectives. The group will have representatives, as invited by the Management Group, who attend and feed into Group meetings to represent the interests of their members and any user groups that they represent.

5.3 Management Plan Review

It is proposed that the Shoreham Beach Management Plan be reviewed on a five-yearly basis, with the resultant plan being reviewed and updated as required. The Management Group will designate the Authors of future Management Plans.

6. Action Plan - Year 1

1. To set up and establish the Shoreham Beach LNR Management Group to steer an active 'Friends of' group.

2. To undertake restoration work on the LNR to enhance the natural vegetated.

3. To undertake a 'base-line study' of the beach ecology.

4. To agree, prepare and promote beach users 'Codes of Practice' particularly for the following groups:

   Environment Agency;
   Kite-Surfers and other water sports;
   Adjoining residents and general leisure users.

5. To liaise with Beach Dreams regarding the torchlight procession and bonfire site as well as any other group wishing to have a fire.

6. Prepare information packs for adjoining residents to increase their understanding of the ecology of the beach.

7. To prepare an action plan for year 2 based upon the success of year 1 and the agreed management objectives.

Appendix A

Records of Vascular Plants for Shoreham Beach

*Source: Sussex Biodiversity Record Centre 2001 (1978-2000?)

Scientific name:	Common Name:	Species Status:	Local Status:	Locality:
Achillea millefolium	Yarrow			Shoreham beach
Anagallis arvensis	Scarlet pimpernel			Shoreham beach
Anthriscus sylvestris	Cow parsley			Shoreham beach
Armeria maritima	Thrift			Shoreham beach
Atriplex glabriscula	Babington's Orache			Shoreham beach
Atriplex portulacoides	Sea Purslane			Shoreham beach
Atriplex prostrara sens.str.	Spear-leaved Orache			Shoreham beach
Barbarea intermedia	Medium-flowered Winter cress			Shoreham beach
Bellis perennis	Daisy			Shoreham beach
Beta vulgaris ssp. Maritima	Sea Beet			Shoreham beach
Calystegia soldanella	Sea Bindweed			Shoreham beach
Cardamine hirsuta	Hairy Bittercress			Shoreham beach
Carduus crispus	Welted Thistle			Shoreham beach
Carduus tenuiflorus	Slender Thistle			Shoreham beach
Centranthus ruber	Red Valerian			Shoreham beach
Cerastium diffusm	Dark-green Mouse-ear			Shoreham beach
Cerastium fontanum	Common Mouse-ear			Shoreham beach
Chenopodium bonushenricus	Good King Henry			Shoreham beach
Cirsium arvense	Creeping Thistle			Shoreham beach
Cirsium palustra	Marsh Thistle			Shoreham beach
Cochlearia danica	Danish Survey Grass			Shoreham beach
Conium maculatum	Hemlock			Shoreham beach
Crambe maritima	Sea-kale			Shoreham beach
Crataegus monogyna	Hawthorn			Shoreham beach
Crepis vesicaria	Beaked Hawk's-beard			Shoreham beach
Crithmum maritimum	Rock Samphire			Shoreham beach
Echium vulgare	Viper's Bugloss			Shoreham beach
Epilobium hirsutum	Great Willowherb			Shoreham beach
Eupatorium ncannabinum	Hemp agrimony			Shoreham beach
Galium aparine	Cleavers			Shoreham beach
Galium mollugo	Hedge Bedstraw			Shoreham beach
Galium verum	Lady's Bedstraw			Shoreham beach
Geranium dissectum	Cut-leaved Crane's-bill			Shoreham beach

Glaucium flavum	Yellow Horned Poppy			Shoreham beach
Hypochaeris radicata	Cat's-ear			Shoreham beach
Lamium album	White Dead-nettle			Shoreham beach
Lamium purpureum	Red Dead-nettle			Shoreham beach
Lepidium draba	Hoary Cress			Shoreham beach
Ligustrum vulgare	Wild Privet			Shoreham beach
Linaria vulgare	Common Toadflax			Shoreham beach
Lotus corniculatus	Common Bird's-foot-trefoil			Shoreham beach
Malva sylvestris	Common Mallow			Shoreham beach
Matricaria discoidea	Pineapple Weed			Shoreham beach
Medicago lupulina	Spotted Medick			Shoreham beach
Medicago polymorpha	Black Medick			Shoreham beach
Medicago polymorpha	Toothed Medick	Nationally scarce		Shoreham beach
Papaver rhoeas	Common Poppy			Shoreham beach
Petrorhagia nanteuillii	Childing Pink	Endangered	Protected Biodiversity UK Long List and W&C Act Schedule 8	Shoreham beach
Picris hieracioides	Hawkweed Oxtongue			Shoreham beach
Pilosella officinarum	Mouse-ear Hawkweed			Shoreham beach
Plantago coronopus	Buck's-horn Plantain			Shoreham beach
Plantago lanceolata	Ribwort Plantain			Shoreham beach
Plantago media	Hoary Plantain			Shoreham beach
Pontentilla reptans	Creeping Cinquefoil			Shoreham beach
Primula veris	Cowslip			Shoreham beach
Ranunculus ficaria	Lesser Celandine			Shoreham beach
Rubus fruiticosus agg.	Bramble			Shoreham beach
Rumex crispus	Curled dock			Shoreham beach
Sagina apetala	Annula Pearlwort			Shoreham beach
Sagina maritima	Sea Pearlwort			Shoreham beach
Sedum acre	Biting Stonecrop			Shoreham beach
Sedum album	White Stonecrop			Shoreham beach
Sedum anglicum	English Stonecrop			Shoreham beach
Senecio cineraria	Silver Ragwort			Shoreham beach
Senecio erucifolius	Hoary Ragwort			Shoreham beach
Senecio jacobaea	Common Ragwort			Shoreham beach
Senecio squalidus	Oxford Ragwort			Shoreham beach
Senecio viscosus	Sticky Groundsel			Shoreham beach
Senecio vulgaris	Groundsel			Shoreham beach
Silene nutans	Nottingham Catchfly	Nationally scarce		Shoreham beach
Silene uniflora	Sea Campion			Shoreham beach
Sisymbrium officinale	Hedge Mustard			Shoreham beach
Smyrnium olusatrum	Alexanders			Shoreham beach
Solanum dulcamara	Bittersweet			Shoreham beach
Sonchus arvensis	Perennial Sow-thistle			Shoreham beach

Sonchus asper	Prickly Sow-thistle			Shoreham beach
Sonchus oleraceus	Smooth Sow-thistle			Shoreham beach
Suaeda maritima	Annual Sea Blite			Shoreham beach
Taraxacum officinale	Dandelion			Shoreham beach
Trifolium stellatum	Starry Clover	Introduced Endangered		Shoreham beach
Tripleurospermum indorum	Scentless Mayweed			Shoreham beach
Ulex europaeus	Gorse`			Shoreham beach
Urtica dioica	Common Nettle			Shoreham beach
Valerianella locusta	Common Cormsalad			Shoreham beach
Veronica hederifolia	Ivy-leafed Speedwell			Shoreham beach
Vicia lutea	Yellow Vetch	Nationally scarce		Shoreham beach
Anisantha sterils	Barren Brome			Shoreham beach
Bromus hordeaceus	Soft Brome			Shoreham beach
Dactylis glomerata	Cock's Foot			Shoreham beach
Festuca rubra sens.str.	Red Fescue			Shoreham beach
Horeum murinum	Wall Barley			Shoreham beach
Lolium perenne	Perennial Rye-grass			Shoreham beach
Poa annua	Annual Meadow grass			Shoreham beach

Appendix B

Records of Fauna for Shoreham Beach

*Source:

Scientific name:	Common Name:	Species Status:	Local Status:	Locality:
BIRDS				
	Ringed plover			Shoreham beach
	Dunlin			Shoreham beach
	Greenfinch			Shoreham beach
	Linnet			Shoreham beach
	Reed Bunting			Shoreham beach
	Snow Bunting			Shoreham beach
	Wheatear			Shoreham beach
	Black Redstart			Shoreham beach
	Rock Pipit			Shoreham beach
	Meadow Pipit			Shoreham beach
	Turnstone			Shoreham beach
	Grey Wagtail			Shoreham beach
	Stonechat			Shoreham beach
	Chiffchaff			Shoreham beach
REPTILES				
Lacerta vivipara	Common Lizard			Shoreham beach
Prodarcis muralis	Italian Wall Lizard	Introduced 1974		Shoreham beach
BUTTERFLIES				
Cynthia cardui	Painted Lady			Shoreham beach
Aglais urticae	Small Tortoiseshell			Shoreham beach
Polygonia c-album	Comma			Shoreham beach
Inachis io	Peacock			Shoreham beach
Thymelicus sylvestris	Small Skipper			Shoreham beach
Vanessa atalanta	Red Admiral			Shoreham beach
Lycaena phlaeas	Small Copper			Shoreham beach
MOTHS				
Cerura vinula	Puss Moth			Shoreham beach
Plusia gamma	Silver-Y			Shoreham beach
MOLLUSCS				
Vallonia excentrica	Eccentric Grass Snail			Shoreham beach
Pupilla muscorum	Moss Snail			Shoreham beach
Ceciloides acicula	Blind Snail			Shoreham beach
Monacha cantiana	Kentish Snail			Shoreham beach
Cernuella virgata	Banded Snail			Shoreham beach