

What will the benefits be?

The management scheme will ensure that we interact with the Bay's wildlife in a more sustainable way and in particular:

- Maintain, restore and enhance the habitats and biodiversity of Morecambe Bay.
- Make people more aware of the rich wildlife within the Bay.
- Achieve greater recognition of the value of the natural environment to the local economy and social well-being.
- Gain a better understanding of our impacts upon the Bay.
- Ensure that the Bay is in better condition for us and future generations to use and enjoy.

Morecambe Bay is used and managed by a wide range of organisations and user groups. The management scheme identifies how other projects, plans and initiatives, such as the Morecambe Bay Partnership, Lake District National Park Management Plan, Shoreline Management Plans and Local Environment Agency Plans, will help deliver the sustainable management of the Bay.

The Morecambe Bay Partnership brings together many different interests that exist in the Bay. It promotes co-ordination to reduce possible conflicts and encourage understanding. The Partnership has been actively involved in the development of the management scheme and will help to implement its actions. We will ensure that the views of the Bay's users are taken into account as much as possible.

The Bay needs your help

We can't protect the unique wildlife and habitats of Morecambe Bay on our own. The relevant authorities and agencies need to work in partnership with local communities to deliver the actions from the scheme. You can help. For example contact the Environment Agency hotline if you see pollution happening and get involved in local action groups. More ideas and contacts are listed below.

Want to get involved?

There are many ways in which you can get involved with practical projects that will help look after the Bay.

All year round....

- **Environment Agency 24 hour Emergency Hotline** for reporting all environmental incidents relating to air, land and water - **0800 80 70 60**
- To organise a **beach-clean** or get involved in **Adopt-a-Beach** - contact Marine Conservation Society, **01989 566 017** www.adoptabeach.org.uk
- Interested in helping with **bird-ringing** in Morecambe Bay - contact Jack Sheldon - **01229 473 102**
- **Streamwatch UK surveys** - contact Colette Hoggmascall, **01606 77896** hogg@hoggmascall.freeserve.co.uk

- **Lancashire Marine Conservation Society** - shore walks, marine life identification, field workshops etc - contact Ron Crosby, **01282 843 439**

The Morecambe Bay Partnership website has lots of exciting information about the Bay.
www.morecambabay.org.uk

- **BTCV (British Trust for Conservation Volunteers) South Cumbria**, **01229 580 234**
North Lancashire - contact Dominic Parker, **01772 250 286**
- **Cumbria Wildlife Trust** - contact John Dunbavin, **015394 48280**
- **Lancashire Wildlife Trust** - contact Graham Standing, **01772 324 129**
- **North Lancashire Naturalists** - contact Mike Moon, **01524 701 163**

Morecambe Bay is very special - let's work together to keep it that way.

Want more information?

Copies of the full management scheme are available at libraries or can be downloaded from the European marine site website at www.morecambabay.com

Any problems getting a copy contact English Nature **01539 792 800**

This booklet was funded by English Nature and the European Union Life Project.

Helen Johnston, Morecambe Bay Project Officer at English Nature would like to thank everyone who has helped her to develop the Management scheme and produce this booklet.

Designed and printed by Badger Press, Bowness on Windermere, Cumbria LA23 3AS. Tel: 015394 45399.

Photography

Many thanks to;
Alan Forsyth
Associated British Ports, Barrow
British Gas HRL
Chris Lumb
English Nature
Heysham Port, Heysham
Jon Sparks
Jonathon Wilson
Kenny Hopper
Lancaster City Council
Lancaster City Museums
MSAT
Neil Fletcher
Paul Kay Marine Wildlife Photo Agency
RSPB Images
Susannah Bleakley
Trevor Harwood

Illustrations

Christine Isherwood

CARING FOR MORECAMBE BAY

Management Scheme Summary



This new scheme is one of the most significant things that has ever happened for nature conservation in Morecambe Bay. The UK Habitats Regulations, resulting from the European Habitats Directive, place new and stronger responsibilities on authorities and agencies to work closely together to safeguard the nature conservation interests of important sites. This booklet explains why and how a management scheme has been produced for Morecambe Bay. It gives an overview of the activities that have been considered and describes how actions may affect you.



Photos:
Far Left
Eelgrass bed at Foulney Island
Left
Male Eider Duck
Below
Yellow horned poppies on shingle in the Bay
Bottom
Mud Snail
Photos:
Right
Boats on the shore at Morecambe
Centre
Wading birds waiting for the tide to fall
Below
A Fluke
Bottom
Hampfield Fell overlooking Morecambe Bay

Why is Morecambe Bay's wildlife so special?

Put simply - because of its internationally important habitats and bird populations.

Mud flats and saltmarshes may not seem that special but in the whole of Europe these estuarine environments are quite rare.

As the second biggest embayment in the UK, with the largest continuous intertidal area in the whole of Britain, the Bay regularly supports as many as 200,000 wildfowl and waders during the winter months.

The vast expanses of mud flats and extensive saltmarshes act as a magnet for internationally important waterfowl and seabird populations as they provide feeding and roosting areas.

A rich diversity of life exists beneath the waters of the Bay. Wave - sheltered subtidal boulder and cobble skears are particularly important, as they provide a habitat for a nationally scarce assemblage of sponges, hydroids and sea squirts which thrive in these tide-swept waters.

Sheltered areas of the Walney Channel are home to eelgrass beds which provide nursery and refuge areas for fish. Eelgrass beds are nationally rare and this is the only example of this habitat in north west England.



Central to the aim of the scheme is promoting the sustainable use of a living, working Bay.

How will this scheme affect me?

For most people, the scheme will make very little difference on a day-to-day basis. It will conserve without dictating and there is no intention to stop people using the Bay.

It will be strong enough to protect the wildlife features and will not exclude human activities - such as recreation and economic development - unless they are found to be damaging the features for which the Bay was designated.

Where activities or projects are likely to have a significant effect on the wildlife features an assessment will be undertaken with all interested parties, to ensure their impacts are avoided or minimised.

Raising awareness

The wildlife and natural features of Morecambe Bay provide an exceptionally high quality environment in which to live, work and develop sustainable tourism. They are integral to the local economy and community well-being. As part of the management scheme a Wildlife Interpretation and Promotion Strategy will be developed. This will identify how awareness of these wildlife resources can be raised around the Bay, in a way which will ensure they are safeguarded and enhanced, whilst delivering social and economic benefits.



NATURA 2000 - a network of protected areas in Europe.

Over 80% of the North West coast, from the Solway to the Dee, is designated for its wildlife.

Together with the best sites in the rest of Europe, these areas form a linked network of protected wildlife sites, created under the Habitats Directive. This network is known as Natura 2000. Morecambe Bay is a vital link in this network.

Who are the relevant authorities for the European marine site?

- County and District Councils
- English Nature
- Environment Agency
- Lake District National Park Authority
- North West Water
- Port Authorities
- Sea Fisheries Committee
- The Morecambe Bay Standing Conference acts as the advisory group

What activities are covered by the scheme?

The operations/activities taking place in Morecambe Bay have been grouped by broad category:

- Agriculture
- Catchment management & water quality
- Coastal development
- Coastal defence
- Energy industries
- Fisheries, bait collection & aquaculture
- Offshore development
- Recreation
- Shipping & navigation
- Other interests

Why do we need a management scheme?

Morecambe Bay has so many important conservation features that it is worthy of the highest level of protection we can give it.

We need to find which activities in and around the Bay are likely to affect the wildlife and habitats. We can then avoid or reduce the damage caused by those that are having a significant effect.



With this in mind the relevant authorities voluntarily came together 3 years ago to review activities and develop a management scheme for Morecambe Bay.

What are the features for which the Bay was designated?

Special Area of Conservation (SAC)

- Large shallow inlets & bays
- Intertidal mudflats & sandflats
- Pioneer saltmarsh
- Established saltmarsh
- Vegetated shingle

Special Protection Area (SPA)

- Internationally important numbers of waterfowl & seabirds
- Internationally important numbers of migratory birds

How was the scheme developed?

The starting point for the management scheme are the conservation objectives. These list the wildlife features and set targets for what needs to be accomplished in Morecambe Bay by all the relevant agencies and authorities, in order to achieve good condition. They were written by English Nature for each important habitat within the Bay and provide a basis for the agencies and authorities to assess what activities are likely to cause damage/or disturbance to the Bay's wildlife features.



Many human activities have the potential to damage the wildlife features. The features can be affected in many different ways. Some wildlife features are more sensitive than others. It has been necessary to look at the possible effects of all activities on each wildlife feature. English Nature has a duty to advise other relevant authorities and agencies about activities which may cause damage. This advice covers the sensitivity of each feature to activities, the level of exposure to these operations and assesses how vulnerable the features are. This is then used to identify where action may be needed to avoid damage to features.



How was the action plan drawn up?

- Activities taking place in the Bay were grouped together into broad categories.
- The relevant authorities looked at those for which they were responsible.
- Management measures already in place to safeguard the wildlife and habitats of the site were identified.
- The possible impact of each activity on the site's features was assessed.
- Where impact is unlikely to be significant no further action is proposed.
- Where activities may cause significant impacts further action is proposed.



Photos:
 Far Left
 Visitors enjoying the beautiful scenery of the Bay
 Left
 Cross Bay walkers
 Below
 Curlew in flight
 Bottom
 Ungrazed saltmarsh

Photos:
 Right
 Sheep grazing on saltmarsh at Silverdale
 Below
 Glistening sands
 Centre
 Sponges, Anenomes and Peacock Worms
 Bottom
 Glaxo Chemicals at Ulverston

The diagram below shows how proposed actions are linked to the assessment of impact. Some activities are known to have a significant impact on the Bay's wildlife. Many other activities may have significant impacts and further assessment of them is planned.

The scheme is based around a detailed **action plan**. This lists the measures already in place to manage activities, along with proposed actions to ensure the site is protected and kept in or restored to favourable condition. The relevant agencies and authorities have listed against each of these actions the methods by which they will achieve the targets for habitat protection.



Agriculture

Many of the saltmarshes around the Bay are subject to some form of practical management for agriculture, nature conservation or both. Stock grazing is carried out on many marshes around the Bay and has a major influence on the nature of the saltmarshes and their wildlife. Other activities such as turf cutting, drainage and building of flood defences also take place on the saltmarshes and can lead to the loss of features, vegetation and plant diversity.



Actions

- The areas of coastal grazing marsh within and adjacent to the European marine site which are important for maintaining bird numbers will be identified and mapped and opportunities to encourage restoration of coastal grazing marsh will be sought.
- In liaison with landowners a review of grazing levels, vegetation condition and waterfowl use will be undertaken. This will identify opportunities to improve the grazing management for wildlife.
- Landowners will be encouraged to avoid damage to saltmarsh structure, features and functioning through entering wildlife enhancement schemes.
- Biodiversity action plans for Morecambe Bay will be prepared. These will include targets for species and habitats and identify opportunities to restore wildlife habitats and natural features.

Catchment Management & Water Quality

Catchment management has to take into account both land and water based activities. Many elements determine the quality of coastal waters and the fresh waters that feed them, including direct and indirect discharges from sewage works, industry and agriculture. Other factors can influence the quality of the Bay's land and water - both marine litter and oil pollution pose threats to the features of the Bay and need to be considered within catchment management planning and at an Irish Sea level.



Actions

- A measurement and monitoring programme or inspections of sites contaminated by industrial processes and waste activities will be set up and undertaken.
- Oil pollution emergency plans will be reviewed and revised. The extent of the Bay's litter problem, controls and clean up measures will also be reviewed and new measures put in place where needed.
- A review of the water quality of the Bay and its monitoring programme will be carried out to identify the actions that need to be taken to improve water quality.
- All sewage discharges will be reviewed. Areas causing problems will be identified and options to provide solutions will be developed to ensure there are no significant effects on the features of the Bay.



DEGREE OF IMPACT

ACTIONS

Natural changes to the site

No evidence that the activity can affect or is having an effect

Possible link but not enough information to suggest an adverse effect at present

There is an adverse effect but the activity and/or cause is unknown

There is evidence to show the activity is having or could have an adverse effect

LOW IMPACT

POSSIBLE IMPACT

HIGH IMPACT

Follow progress of natural changes

No action needed at this time

Collect more information about the activity and how it affects the site

Investigate what activities are damaging the site, and find ways to limit the effects

Take action to reduce/stop the activity affecting the site

Plans and Projects?

Plans and projects are operations or activities that require a specific statutory consent, authorisation or other permission and therefore differ from the ongoing management of activities.

An example of such an activity would be a proposal to build a barrage. This is a one-off operation that requires planning consent before any work can begin. If the activity is likely to have a significant effect on the wildlife interests of the site then an assessment of the potential impacts would be needed.



Good places to watch birds

- Walney Island
- Leighton Moss
- Hest Bank
- Rossal Point
- Cockerham

A wealth of wildlife

- Sponges, hydroids and sea squirts
- Brittlestars and anemones
- Cuttlefish and lobsters
- Flounder, plaice, whiting and cod
- Knot, dunlin, curlew and oystercatcher, to name but a few!

Top spots for a view of the Bay

- Arnside Knott
- Hampsfield Fell, Grange
- The Polo Tower, Morecambe
- The Hoad Monument, Ulverston

Treasured history

- St. Patrick's Chapel, Heysham Head
- Cockersands Abbey
- Conishead Priory
- St. George's Quay, Lancaster
- Ulverston Canal



Key to Map

- | | |
|-------------------------------|--------------------|
| 1 Barrow-in-Furness | 12 Silverdale |
| 2 Walney Island | 13 Leighton Moss |
| 3 South Walney Nature Reserve | 14 Carnforth |
| 4 Walney Channel | 15 Bolton-le-Sands |
| 5 Roa Island | 16 Hest Bank |
| 6 Foulney | 17 Morecambe |
| 7 Ulverston | 18 Heysham |
| 8 Flookburgh | 19 Lancaster |
| 9 Humphrey Head | 20 Knott-End |
| 10 Grange-over-Sands | 21 Preesall |
| 11 Arnside | 22 Fleetwood |

Special places

- Jack Scout Cove
- Sunderland Point
- Humphrey Head
- Roa, Piel and Chapel Islands
- Bardsea
- Wyre Estuary
- It's all magic!

Time out

- Sail around the shore
- Go fishing - join the anglers at Morecambe
- Walk along the tide line
- Ferry across the Wyre

Feeling energetic?

- The Tern Project, Morecambe - solve riddles and play games
- Catch a Wave - windsurfing, yachting and dinghy sailing
- Diving - get wet and discover the secrets beneath the surface
- Cross-bay walk - Arnside to Kents Bank

Neat ideas!

- Adopt-a-beach
- Go bird-ringing
- Cumbria and Lancashire coastal walks
- Find the bird sculptures around Morecambe

Coastal Development

The Morecambe Bay coastline is not highly urbanised. Major industrial and port development is concentrated in Barrow, Ulverston, Heysham and Fleetwood. Other coastal development includes the use of land for housing, recreation and tourism with some small sites in Cumbria devoted to minerals (coastal quarrying) and waste disposal (land filling). All of these activities have the potential to cause the loss or damage of coastal interest features. Coastal development is regulated through government planning acts and local authority plans which have policies to safeguard nature conservation interests.



Photos:
Left
Aerial view of Heysham Port and surrounding area

Below
Art on the stone jetty at Morecambe

Below Centre
Coastal defences at Cockerham

Bottom
Crashing waves at Morecambe

Photos:
Right
Port of Barrow and Cavendish Dock (top left)

Below
Heysham Power Station

Below Centre
Haaf netting for salmon and push netting for shrimp in the 1930's

Bottom Left
Cockle

Bottom
Fishing in the Bay

Actions

- A review of uncompleted planning permissions will be carried out to check that no further damage to the features within the Bay is likely.
- A Walney Coastal Strategy is being undertaken to identify how the Walney Island coastline can be managed sustainably. Similar strategies may be needed elsewhere.
- To ensure that mineral extraction, waste disposal, housing or other developments do not damage coastal processes or habitats, an assessment of the impacts on the European marine site will need to be undertaken.

Coastal Defence

Coastal defence is the term used to encompass :

- Coast protection - protection of the land from erosion and encroachment by the sea
- Sea defence - defence against sea and tidal flooding.

The Morecambe Bay Shoreline Management Plan (SMP) has started to detail the changes in coast and estuary form around the Bay as a consequence of natural changes and the effects of historic land claim and coastal defence works. Shoreline management plans are being developed and refined to provide a framework for the development of sustainable policies for managing the shoreline, based upon safeguarding and restoring, where practical, the natural coastal processes.

Actions

- A Coast Strategy for Morecambe is in place to ensure that coastal processes and the environment are safeguarded.
- Funds are being sought to implement priority strategic and monitoring studies identified by the SMP.
- Press for additional studies to be undertaken in Morecambe Bay, to identify coast protection and flood defence measures which need to be undertaken to fulfil obligations under the Habitats Regulations.
- Identify how to ensure that there is a strong community participation in the shoreline management planning process and ownership of the actions proposed.



Energy Industries

Electricity generation is provided by Heysham and Roosecote power stations. The heated effluent from Roosecote is discharged into Cavendish Dock which is part of the Morecambe Bay SPA. The SPA interest features of Cavendish Dock are dependent on this thermal discharge continuing. There is potential for renewable energy in the whole of the Bay area, including offshore wind generation along the west coast.



Actions

- Radioactive effluent discharges - the quality of effluent discharges will continue to be improved where appropriate.
- Electricity generation - current services to be maintained and improvements made where possible.
- Cavendish Dock - implement agreed management plan. Aim to increase favourable condition through achieving increased salinity and reduced nutrient input.

Fisheries, Bait Collection and Aquaculture

The Bay supports a diverse fishing industry.

- Aquaculture - focuses on the cultivation of oysters, with a large hatchery located on Walney Island. Mussel cultivation has taken place recently but only on an experimental basis.
- Cockle fishing - takes place by hand in sheltered sandy areas using a 'jumbo' and small rakes.
- Collection - lugworms, ragworms and shore crabs are gathered for bait. Samphire, shells and curios collected at low levels.
- Migratory species - migrations of adult salmon and sea trout and both adult and juvenile eels are exploited.
- Mussel fishing - hand gathering takes place on mussel skears. Vehicles move gathered mussels to the shore. There is also some dredging for seed mussels.
- Netting - seafish, including bass, mullet and other species are taken using set and drift nets.
- Shrimps - caught using small beam trawls with fine-meshed nets. Fishermen also use push-nets.

Actions

- Ensure that all fishery operations are undertaken sustainably and do not cause significant damage to wildlife interests. A study into the management of mussel beds is being carried out.
- Monitor the scale of bait collecting activities (worm digging and peeler crab collection) and establish if they are likely to significantly affect the features of the site.
- Joint study agreed to assess the integration of nature conservation interests into hatchery and saline lagoon management at South Walney.



Offshore Development

The Morecambe Gas Fields are the most prominent offshore developments near the Bay. The current facilities for handling gas have a high capacity. Further development of pipelines and onshore facilities would require detailed consideration. Spoil arising from channel dredging is disposed of within Morecambe Bay at four sites, which include the Lune Deep and Fleetwood Channel.



Photos:
Left
 South Morecambe Terminal
Centre
 Oystercatcher
Centre Right
 South Morecambe Gasfield
Below
 Dinghies on the Bay
Bottom
 Birdwatchers at Leighton Moss with John Wilson
Right
 Princess Danae visiting Barrow
Below
 Seacat service
Below
 Anglers at Morecambe
Centre Left
 Heysham Harbour
Centre Right
 Piel Castle
Bottom
 St Patrick's Chapel, Heysham Head

Actions

- Aim to gain greater understanding of the impact of disposal of dredgings, and identify if additional monitoring studies are needed on existing disposal sites.
- Ensure that disposal of spoil and exploitation of marine minerals does not prevent the wildlife interests from achieving favourable condition.
- Ensure that damage to the site from oil and gas exploration is avoided, through preparation of environmental assessments and pollution contingency plans.



Recreation

The Bay offers a wide variety of opportunities for relaxation and tourism, and provides a focus for a whole range of recreation activities. A great many people simply enjoy walking along the shore or just being beside the Bay, as it is a tranquil and rejuvenating place. Others are involved in more energetic activities including cross-bay walks, wildfowling, canoeing, dinghy and yacht sailing, windsurfing, bird watching, diving, water-skiing, angling and power boating.

Actions

- Ensure that no recreational activity causes harm to the wildlife interests of the Bay. Prevent damage occurring through voluntary codes of practice, encouragement of relevant groups to participate in the Morecambe Bay Sport & Recreation User Group, and monitor risk areas and implement management measures if needed.
- Stop unauthorised four-wheel drive access on to the shores, and ensure authorised access does not result in damage or disturbance to wildlife.
- Encourage recording of bird numbers and distribution around the Bay, and support increased bird watching.
- Review wildfowling management plans and ensure they contain safeguard measures.
- Identify and address disturbance problems caused by dog walking and improve awareness of users of sensitive sites.
- Review beach management programmes, and ensure they include necessary safeguards for wildlife interests.



Shipping & Navigation

Morecambe Bay has four major ports and harbours. A wide variety of vessels, from Trident submarines, cruise ships, large passenger and freight ferries to fishing boats, require access to the ports. This is made possible by regular maintenance dredging which keeps open the navigation channels and access to berths. Capital dredging works are carried out infrequently in response to new requirements of the ports. Safety of navigation is sustained through the provision of buoys and markers, and the maintenance of channel depths.



Actions

- Aim to gain greater understanding of the impact of maintenance dredging on the interest features of the site through development of good practice for maintenance operations.
- Ensure that anchorages and moorings are not laid within wildlife habitats sensitive to damage, through liaison with Port Authorities and seabed owners to identify areas of potential conflict.
- Ship-building operations, port and marina development and proposals for capital dredging all constitute plans or projects and are likely to need an appropriate assessment to ensure wildlife interests are not significantly damaged.



Other Interests

The landscape and natural beauty of Morecambe Bay is complemented by a rich diversity of historic and pre-historic sites. The archaeological and historic remains which make up the landscape contain irreplaceable information about the past and are valuable in themselves for their contribution towards education, recreation and the economic life of the area.

The Bay provides a living classroom for local schools and outdoor education centres. Science and education courses include sampling and research work and take place in many of the Bay's habitats.

Actions

- Ensure that collection or sampling for research or education purposes does not harm wildlife features.
- A study to assess the potential impact on nature conservation interests of any proposals for increased access to archaeological sites, will be undertaken.
- Known interest in archaeological evaluations and excavations will be reviewed to ensure nature conservation features are taken into account.

