



# Coastal Habitats

80% of Cumbria's coast is classified as being of international wildlife importance. Habitats of particular note are intertidal mud and sand flats, saltmarshes, which support internationally important numbers of passage and wintering waterfowl, and sand dune systems, which are a UK stronghold for natterjack toads and other rare animal and plant species.

## Current status

This coastal plan is a summary for the whole of the Cumbrian coast, and in this approach differs from other habitat action plans within this document. A depth limit of 20m below chart datum has been taken as the seaward limit for the purposes of the plan. Detailed plans will be drawn up for individual habitats in the second phase of the Cumbria BAP. It may be appropriate to develop some of these plans (eg for subtidal habitats) in a regional, Eastern Irish Sea, context.

The Cumbria coast supports a wide range of coastal habitats. Much of the open coast is dominated by extensive sedimental shores, backed by shingle and interspersed with boulder and cobble scars formed by the erosion of glacial boulder clays. These glacial deposits form a low-lying cliff behind most of the coast. A notable exception are the impressive bedrock cliffs at St Bees Head. Extensive shallow subtidal areas fringe the coast. Much of this is sandy, interspersed with boulder and cobble scars. Tidal exposed areas off Maryport support richer

habitats. The Walney channel supports nationally important examples of tide-swept, wave-sheltered marine wildlife. In deeper water off St Bees Head the sediments are muddier with important fisheries for Dublin Bay prawn.

The estuaries and embayments are the largest features on the Cumbria coast, however, and are of international importance for their wildlife. Around 80% of the Cumbria coast is classified as Special Protection Areas and/or within candidate Special Areas of Conservation. Morecambe Bay and the Solway Firth are two of the largest intertidal areas in the UK. They support extensive saltmarsh habitats, intertidal boulder- and cobble scars and mud- and sand flats. The vegetated shingle and sand dune systems on the Cumbria coast are of national or international importance. The saltmarsh and sand dunes provide the UK stronghold for the natterjack toad and support many other scarce and rare species of plant and animal. The estuaries are of international importance for their passage and wintering waterfowl, forming critical links in international flyways. The Solway supports the

entire Svalbard breeding population of the barnacle goose during winter. Walney Island and the Duddon Estuary support internationally important breeding seabird colonies.

Man has claimed extensive areas from the sea around the Cumbria coast. In Morecambe Bay, for example, large areas of freshwater grazing marsh and saltmarsh have been enclosed with flood- and railway embankments, resulting in loss of coastal habitats and changes to the coastal processes.

### Characteristic wildlife

The wildlife of the Cumbria coast includes the following UK BAP priority habitats:

- maritime cliff and slope
- coastal vegetated shingle structures
- coastal saltmarsh
- coastal sand dune (including dune grass, dune heath, dune scrub and strandline vegetation)
- estuaries
- saline lagoons
- sea grass beds
- mudflats
- honeycomb worm reefs
- Ross worm reefs (status in Cumbria unclear)
- sublittoral sands and gravels
- mud in deep water
- horse mussel beds (status off Allonby to be checked)

The coast also supports other wildlife and natural features of particular note:

- sites selected for one or more of eight EC Habitats Directive coastal Annex I habitats;
- geomorphological interests of the saltmarshes, shingle spits and Walney island;
- many nationally rare, nationally scarce or local plants;
- many Red Data Book and nationally scarce species of invertebrate;
- important breeding grounds of migratory fish eg smelt and passage routes for salmon;
- important nursery areas for many flatfish species and for species such as bass;
- nationally and internationally important numbers of many species of wintering and passage wildfowl and waders;
- internationally important breeding seabird colonies;
- breeding common seals.

### Key species

The following rare or threatened species are associated with coastal habitats in Cumbria. Species were selected on the basis that they are UK BAP Priority Species (marked P) or species of County importance in Cumbria. Where species of County importance are also UK BAP Species of Conservation Concern, they are marked C.

common dolphin	<i>Delphinus delphis</i>	P
grey seal	<i>Halichoerus grypus</i>	C
common seal	<i>Phoca vitulina</i>	C
harbour porpoise	<i>Phocoena phocoena</i>	P
bottlenose dolphin	<i>Tursiops truncatus</i>	P
skylark	<i>Alauda arvensis</i>	P
linnet	<i>Carduelis cannabina</i>	P
hen harrier	<i>Circus cyaneus</i>	C
reed bunting	<i>Emberiza schoeniclus</i>	P
corn bunting	<i>Miliaria calandra</i>	P
yellow wagtail	<i>Motacilla flava</i>	C
grey partridge	<i>Perdix perdix</i>	P
golden plover	<i>Pluvialis apricaria</i>	C
little tern	<i>Sterna albifrons</i>	C
redshank	<i>Tringa totanus</i>	C
barn owl	<i>Tyto alba</i>	C
lapwing	<i>Vanellus vanellus</i>	C
natterjack toad	<i>Bufo calamita</i>	P
great crested newt	<i>Triturus cristatus</i>	P
leatherback turtle	<i>Dermochelys coriacea</i>	P
allis shad	<i>Alosa alosa</i>	P
thwaite shad	<i>Alosa fallax</i>	P
basking shark	<i>Cetorhinus maximus</i>	P
brown-banded carder bee	<i>Bombus humilis</i>	P
vernal colletes	<i>Colletes cunicularis</i>	C
northern colletes	<i>Colletes floralis</i>	P
a ground beetle	<i>Cicindela hybrida</i>	P
a ground beetle	<i>Dyschirius angustatus</i>	P
a water beetle	<i>Dytiscus circumflexus</i>	
a ground beetle	<i>Harpalus honestus</i>	
dark bush-cricket	<i>Pholidoptera griseoptera</i>	
speckled bush-cricket	<i>Leptophyes punctatissima</i>	
a woodlouse	<i>Armadillidium album</i>	
a woodlouse	<i>Halophiloscia couchi</i>	
a hydroid	<i>Obelia bidentata</i>	
a lacewing	<i>Chrysopa abbreviata</i>	
grey moth	<i>Hadena caesia</i>	
a sponge	<i>Amphilectus fucorum</i>	
a sponge	<i>Halichondria panicea</i>	
a sponge	<i>Haliconia oculata</i>	

an hemipteran	<i>Chlorita dumosa</i>	
honeycomb worm	<i>Sabellaria alveolata</i>	C
a waxcap	<i>Hygrocybe spadicea</i>	P
a puffball	<i>Tulostoma brumale</i>	
a moss	<i>Bryum warneum</i>	P
a moss	<i>Drepanocladus sendtneri</i>	
slender green	<i>Hamatocaulis vernicosus</i>	P
feather moss		
lesser bearded	<i>Chara curta</i>	P
stonewort		
wild asparagus	<i>Asparagus officinalis ssp.</i>	P
red hemp-nettle	<i>Galeopsis angustifolia</i>	P
slender club-rush	<i>Isolepis cernua</i>	
sea lavender	<i>Limonium (endemic taxa)</i>	P
slender niad	<i>Najas flexilis</i>	P
beaked tasselweed	<i>Ruppia maritima</i>	
vervain	<i>Verbena officinalis</i>	
spiked speedwell	<i>Veronica spicata</i>	C
narrow-leaved eel	<i>Zostera angustifolia</i>	
grass		
eel grass	<i>Zostera marina</i>	C

## Current issues

- Effects of fisheries and shellfisheries on wildlife habitats and species, including birds.
- Risk of pollution from oil and gas development.
- Development of onshore and offshore windfarms.
- Damage to coast processes from previous and current coast protection/flood defences and other coastal structures.
- Loss of intertidal habitats as a result of 'coastal squeeze'. This can arise where rising sea levels occur in front of hard coastal defences, with no opportunity for the saltmarsh and other intertidal habitats to migrate landwards to compensate, leading to erosion of intertidal habitats. This is compounded by land claim and development within the intertidal zone and on floodplains.
- Recreational disturbance to coastal habitats and their wildlife, e.g. coastal footpaths, dog walking, jetskiing, vehicular access.
- The need for more effective and integrated coastal zone management.
- Inappropriate management of coastal habitats, e.g. undergrazing or overgrazing of saltmarshes, sand dunes and grasslands.
- Development on coastal habitats and hinterland leading to loss and increased 'squeeze' of coastal habitats, e.g. industrial and urban development, golf courses.
- Marine dredging and spoil disposal.
- Inappropriate method and timing of beach-cleaning by Local Authorities. This can remove habitats for invertebrate life and, as a result, a food source for birds.
- Habitat damage and fragmentation from agricultural intensification.
- Habitat damage from intensive bait digging and bait collection. This activity can also disturb foraging birds and may have adverse effects on prey availability.
- Pollution from sewage works, industrial effluents and other point source discharges.
- Pollution from agricultural run-off and river catchment and wider Irish Sea sources.

## Current action

- Estuary partnerships and strategies are in place on Morecambe Bay, Duddon Estuary and the Solway Firth; other coastal partnerships include the Solway Rural Initiative, Drigg Forum and Ministry of Defence Eskmeals Conservation Group.
- PISCES (Partnership of Irish Sea Coast and Estuary Strategies) is raising the profile of coastal issues in NW England for consideration in regional planning.
- A North West Coastal Forum was formed in 2000, led by Government Office for the North West, with wide representation of regional interests.
- Shoreline Management Plans are nearly complete for the whole Cumbria coast. Led by local planning authorities and Environment Agency, they promote sustainable coast protection and coastal flood defences.
- Positive management of coastal habitats for wildlife is encouraged through entry into MAFF's Countryside Stewardship and Environmentally Sensitive Areas and English Nature's Coastal Wildlife Enhancement Scheme.
- The Solway Area of Outstanding Natural Beauty Management Plan is being implemented through the Solway Rural Initiative.
- Lake District National Park Management Plan coastal policies are being implemented through the Lake District National Park Authority. Provision of information and awareness-raising by LDNPA includes literature and events.
- Local Environment Agency Plans (LEAPs) are in place on the Cumbria coast.

- Regional Planning Guidance is being reviewed to take account of coastal issues.
- Morecambe Bay, Solway Firth and Drigg Coast have been submitted to Europe as candidate Special Areas of Conservation; Morecambe Bay, Duddon Estuary and the Upper Solway Flats and Marshes are Special Protection Areas.
- Schemes of Management are being developed for Morecambe Bay and Solway Firth European marine sites. These address the maintenance and restoration of habitats up to the mean high water mark. Management of habitats above high water mark and issues of habitat enhancement will fall to other mechanisms outlined in the BAP.
- Reviews of consents will be undertaken by the Environment Agency and other competent authorities for European marine sites under the 'Habitats Regulations' 1994.
- Fisheries Order proposals are being developed for mussel and cockle fisheries in Morecambe Bay and the Solway Firth.
- A countywide Coastal Pollution Emergency Plan is in place.
- The Cumbria Marine Litter Project, based at Copeland Borough Council, has monitored the amounts of marine litter on beaches in the Drigg area and is now promoting awareness of the problem and seeking solutions with local businesses and communities.
- Amateur naturalists make important contributions to our knowledge of Cumbria's coastal environment, including, among others, regular monitoring of wader and wildfowl numbers, floral surveys (including lichens), surveys of littoral and sublittoral fauna and flora (the latter from dives) and studies of marine molluscs.

## Context in relation to other plans:

### UK Habitat Action Plans

National action plans have been prepared for each of the BAP priority habitats and species listed in the *Characteristic Wildlife* and *Key Species* sections above. The objectives and targets set out by these UK plans will be detailed in the individual habitat action plans to be produced in Phase II.

### Local contacts

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### Associated plans in the Cumbria BAP

The following Cumbria species/habitat action plans are of relevance to the coast:

#### Phase I

- honeycomb worm reefs
- natterjack toad
- great crested newt

#### Phase II

- coastal and flood-plain grazing marsh
- maritime cliff and slope
- coastal vegetated shingle structure
- coastal saltmarsh
- coastal sand dune (inc. dune grass, heath, scrub and strandline)
- intertidal rocky shores and reefs
- intertidal mudflats and sandflats
- sea-grass beds
- saline lagoons
- farmland birds

## Objectives, targets and proposed actions for Coastal Habitats in Cumbria

Broad Objective A		Improve knowledge of the coast to inform its sustainable planning, management and use		
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
I Understand the distribution of coastal habitats and key species on the Cumbria coast and identify their conservation requirements	I Use existing data or undertake new survey to map the key habitats and species on the Cumbria coast, and disseminate information on their distribution and conservation requirements. By 2005.	EN, CWT, LDNPA, EA, MCS, CSFC	M	RM
Broad Objective B		Protect coastal habitats from inappropriate development		
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
I Ensure appropriate representation of coastal systems, their wildlife and natural features in statutory and non-statutory sites, e.g. SSSIs, Wildlife Sites, RIGS, 'Marine Protected Areas'	I Review coastal and marine representation within statutory and Wildlife Sites (e.g. for honeycomb worm reefs) and take appropriate action. By 2005.	EN, CWT	M	SS

**Broad Objective C      Secure favourable management for coastal wildlife and natural features**

Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
<b>1 Halt, and where practical and appropriate, reverse the disruption of coastal processes which underpin the functioning of the coastal system</b>  [Reduce the 'squeeze' of coastal habitats from sea level rise/increased storminess, for example, through managed realignment and replacing unavoidable losses]	1 Implement an agreed programme of monitoring and additional studies leading up to the 5 year review of Shoreline Management Plans (SMPs). By 2005.	<b>DCs, EA, EN</b>	M	RM
	2 Prepare Coastal Habitat Management Plans (CHaMPs) for estuaries to assess the implications and requirements of the Habitats Regulations on Shoreline Management Plans. By 2010.	<b>EN, DCs, EA</b>	L	PL
	3 Ensure that SMPs and policies for sustainable shoreline management are integrated into the land-use planning system, in particular development plans, e.g. to prevent further development in areas at risk of flooding. By 2005.	<b>LAs, EA, EN</b>	M	PL
	4 Ensure safeguards are built into all coast protection and flood defense works, to protect nature conservation interests and coastal processes. By 2010.	<b>EA, LAs, Utilities, Railtrack</b>	L	SS
<b>2 Maintain coastal water quality and improve it where necessary</b>	1 Assess coastal water quality status and the effects of recent changes, e.g. NWW's Sea Change programme: Morecambe Bay review in 1999.	<b>EA, EN, NWW, MCS</b>	S	SS
	2 EN/EA to develop water quality objectives for the European marine sites. EA to undertake review of discharge consents under the Habitats Regulations. By 2005.	<b>EN, EA</b>	M	SS
	3 Identify opportunities to further reduce marine contaminants, e.g. heavy metals, endocrine-disrupting chemicals, stemming from human activities. By 2005.	<b>EA, NWW, EN</b>	M	SS
<b>3 Ensure that key biological features are shown on coastal pollution sensitivity and response maps</b>	1 Incorporate existing and new survey information into a review of coastal oil pollution sensitivity maps and clean-up schedules for Cumbria. By 2005.	<b>EN, CCC, EA, CSFC</b>	M	RM/SS

Broad Objective C	Secure favourable management for coastal wildlife and natural features			
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
4 Review existing management of European Marine Sites and identify and secure additional measures needed	1 Develop, promote and implement marine schemes of management for the Morecambe Bay/Duddon Estuary, Solway Firth and Drigg Coast European sites. By 2001.	EN, Relevant Authorities	S	SS
	2 Competent authorities to review their consents on European marine sites, under Habitats Regulations. By 2005.	All Competent Authorities	M	SS
5 Encourage positive management for nature conservation of other statutory and non-statutory coastal sites	1 Ensure that all other statutory and non-statutory sites have management plans in place and that management plans are reviewed to take account of the Cumbria BAPs.	EN, CWT, RSPB, NT, DCs, LDNPA, SRI, FWAG	Stat: M Non-stat: L	SS
	2 For all statutory and non-statutory sites identify target areas for positive management and secure funding from agri-environment, conservation or other schemes.	EN, CWT, FWAG, RSPB, NT, LAs, SRI,	L	SS
6 Seek to influence reform of the Common Fisheries Policy and local fisheries management towards an environmentally sustainable use of Cumbria's coastal and marine environment	1 Seek to influence relevant government agencies and other key players at appropriate levels and times to put in place the key measures needed to secure the biodiversity of the coastal and marine environment.	Cumbria Biodiversity Partnership EN, MCS	○	
	2 Take forward fisheries and environmental issues in ways that will promote environmentally sustainable management and contribute to biodiversity targets most effectively.	Estuary Partnerships, EA, EN, MCS	○	

**Broad Objective D** **Foster a wider awareness, understanding and appreciation of coastal wildlife and natural features and their conservation needs and sustainable use**

Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
<b>1 Promote and improve the sustainable use and integrated management of the coastal zone</b>	1 Identify and pursue practical measures (especially those outside the remit or geographical range of existing estuary and coastal partnerships) at local, regional or national level, to achieve improved integrated coastal zone management in Cumbria.	<b>EN, EA, CWT, RSPB, LAs</b>	O	SS
<b>2 Increase awareness and understanding of the coastal natural environment and support and encourage community participation and responsibility in its management</b>	1 Disseminate and promote EN's coastal and marine Natural Area profiles and objectives. By 2001.	<b>EN</b>	S	CP
	2 Develop an environmental awareness programme for the Cumbria Coast that builds upon and strengthens the work being undertaken by local coast and estuary partnerships and initiatives, identifying and meeting the requirements of planners, managers and users of the coast.	<b>EN, CWT, RSPB, NT, LAs SRI, SFCs, MCS, users/local communities</b>	O	CP
	3 Promote the Adopt-a-Beach programme, to involve the public/local communities in the care of their local coastline.	<b>MCS, CWT</b>	O	CP
	4 Promote the Cumbria Marine Litter Project, to raise awareness of the sources of marine litter and how to reduce this pollution.	<b>Copeland BC, LDNPA</b>	O	CP

### Key to Tables

**Suggested organisational involvement:** Key Deliverers in bold type; Partners in plain type.

BC = Borough Council; CCC = Cumbria County Council; CSFC = Cumbria Sea Fisheries Committee; CWT = Cumbria Wildlife Trust; DETR = Department of Environment, Transport and the Regions; EA = Environment Agency; EN = English Nature; FWAG = Farming and Wildlife Advisory Group; LAs = Local Authorities; LDNPA = Lake District National Park Authority; MCS = Marine Conservation Society; NT = National Trust; NWW = North West Water Ltd.; PISCES = Partnership of Irish Sea Coast and Estuary Strategies; RSPB = Royal Society for the Protection of Birds; SFCs = Sea Fisheries Committees; SRI = Solway Rural Initiative.

**Timescale:** O=ongoing; S=short term (2000-2001); M=medium (2002-2005); L=long (2006-2010).

**Type:** Type of action; PL=Policy & Legislation; SS=Site Safeguard & Management; SP=Species Management and Protection (species plans only); A=Advisory; RM=Research & Monitoring; CP=Communications and Publicity.