



Humber Management Scheme

Fact sheet: Mud and sandflats



Industry and nature in harmony in one of Europe's great estuaries

Introduction

Intertidal mudflats and sandflats are submerged at high tide and exposed at low tide. In the Humber Estuary they include gravels and sands, muddy sands and mud, which reflects varying degrees of exposure to waves, currents and inflowing rivers. Substantial areas of mud and sandflat have been lost due to land claim but are still a major component of the Humber Estuary and represent 4.5% of the UK's total mud and sandflat resource.

Areas such as the upper and mid-shore flats are highly productive, supporting a large number of invertebrates, with 180 species recorded at Spurn Bight alone. These provide an important food source for internationally important numbers of waterfowl and fish.

There are several sub-features to mud and sandflat:

- Intertidal gravel and sand communities: Occur on open coast beaches where wave action or strong tidal currents prevent the deposition of finer silt.
- Intertidal muddy sand communities: Occur on more sheltered shores and at the mouth of the estuary from Cleethorpes to Donna Nook.
- Intertidal mud communities: Form in the most sheltered areas of the Estuary, usually where large quantities of silt derived from rivers has been deposited.
- Eelgrass bed communities: Eelgrass is a type of submerged aquatic vegetation (referred to as SAV) that grows in estuaries and shallow bays. Eelgrass is *not* a seaweed - it is a perennial flowering plant. Eelgrass bed communities are rare in the UK and an important habitat for fish for spawning, nursery and refuge.

Current status and location in the Humber EMS

Intertidal mud and sandflats are features designated as part of the Humber Estuary Special Area of Conservation (SAC) and a supporting habitat of the Humber Special Protection Area and Ramsar site.

The intertidal mud and sandflat feature is currently in unfavourable recovering conservation status.

Objectives and targets

The overall objective for SAC features is:

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Condition Status of each of the qualifying features.¹

The targets for mud and sandflats have been taken from the favourable conservation tables in the Humber Estuary Regulation 33 advice². The targets will be updated once the Conservation Advice for the Humber Estuary has been updated.

¹ http://www.naturalengland.org.uk/Images/UK0030170-Humber-Estuary-SAC_tcm6-31768.pdf

² <http://humburnature.co.uk/admin/resources/english-natures-reg-33-advice.pdf>

Attribute	Target
Extent	No decrease in extent from an established baseline, subject to natural change
Topography (the study of surface shape and features)	Shore profile should not deviate significantly from an established baseline, subject to natural change
Nutrient enrichment - macroalgal mats (seaweed)	Average abundance of macroalgal mats should not increase from an established baseline, subject to natural change
Sediment character	Average <i>Particle Size Analysis</i> (PSA) parameters should not deviate significantly from an established baseline, subject to natural change
Sediment character	Average organic carbon content should not deviate significantly from an established baseline, subject to natural change
Sediment character	Average black layer depth should not deviate significantly from an established baseline, subject to natural change

Threats, management and gaps in management

Threat and impacts	Management	Gaps in management	Action
Extent: Coastal squeeze	Humber Flood Risk Management Strategy and CHaMP	Identify further opportunities for habitat improvement and creation	3
Extent: Loss from development	Habitats Regulations Assessment		
Nutrient enrichment: Water quality	Humber Clean oil response plan is in place and the Strategic Environment Group is reviewing the plan. The Water Framework Directive has identified and delivering a number of actions relating to the improvement		

	of water quality.		
Topography: Topography changes in the inner estuary	Improvement Programme for England's Natura 2000 Sites (<i>IPENS</i>) research will provide more information.	Follow on work following IPENS research	14
Sediment character: bait digging	The Inshore Fisheries and Conservation Authorities (IFCAs) are undertaking a review of activities in EMS as part of Article 6 of the Habitats Regulations.	Unknown as yet	15
All targets: Climate change		Undertake a climate change vulnerability assessment (see cross cutting plan).	12
Non-native species		Understand the presence and impacts of non-natives (see cross cutting action plan	13



About the Humber Nature Partnership

The Humber Nature Partnership aims to deliver the sustainable management of the Humber Estuary and its surroundings, providing an environment in which new and existing businesses can grow alongside the enhancement of the estuary's wildlife riches.

Our work includes:

- Delivering the Humber Management Scheme
- Providing ecological services
- Supporting economic growth
- Engagement and communication
- Ensuring high quality evidence and data exists



We have delivered projects with industry such as wetland habitat creation and woodland management work. We have also delivered range of research and data gathering projects such as ornithological surveys in the South Humber Gateway area to extensive work to understand the impact of recreation on Humber protected birds. We also deliver a range of education and awareness raising projects such as producing codes of conducts and signage. We aim to work in partnership on the delivery of projects and are always open to hearing new project ideas.

We offer the following skills and expertise:

- Partnership working
- Expertise in ecology and planning
- On site wildlife management
- Managing contracts
- Awareness raising and engagement
- Event organising
- Negotiation and conflict resolution

Humber Nature Partnership
Waters' Edge Visitor Centre
Maltkiln Road
Barton Upon Humber
North Lincolnshire DN18 5JR
T 01652 631520
E info@humbernature.co.uk
W www.humbernature.co.uk