



Humber Management Scheme

Fact sheet: Saline lagoons



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

Introduction

Saline lagoons are bodies of saline water separated from the sea by a physical barrier which restricts tidal movement or renders them tideless. Salinity may be very low or very high (hypersaline) depending on water exchange and evaporation regime.

Saline lagoons are unusual habitats with limited distribution throughout Europe. As well as being significant as a geophysical feature, lagoons are also important because of the specialist species and biotopes they support.

The Humber Estuary supports 10% of the total UK resource of coastal lagoons. Designated as Special Areas of Conservation are the following lagoons:

- Humberston Fitties: Managed by RSPB, the lagoon has its origins as a saltmarsh pool and was used as a boating lake at some time. The site comprises of one main lagoon and 4 saltmarsh pools. The lagoon supports diverse communities of several lagoon specialists and has been described as the third most important lagoon in Britain. It is the most northerly site in Europe for the lagoon sand shrimp *Gammarus insensibilis*.
- North Coates lagoon: is an extensive and narrow lagoon system behind low dunes and saltmarsh south of Humberston Fitties. It is a complex system consisting of a high salinity silled lagoon and a moderate salinity percolation lagoon.

Listed as supporting features of the Humber Special Protection Area are the following lagoons:

- Blacktoft sands: The RSPB created six brackish lagoons at Blacktoft Sands between 1978 and 1987 where water levels are controlled to provide a range of breeding and feeding habitats for birds. Avocets first began to colonise the area in 1992.
- Read's Island: Has the fourth largest lagoon system occurring on an island in a British Estuary. The island was finally abandoned by people in 1989 and is now jointly managed by the RSPB and Lincolnshire Wildlife Trust. In the late 1990s work was carried out to create saline lagoon habitat and avocet quickly inhabited the island. Golden plover and bar-tailed godwit also use the lagoons as high tide roosts.
- Easington lagoons: Is the most important site on the Humber Estuary for breeding little tern.

Current status and location in the Humber EMS

Saline lagoons are features designated as part of the Humber SAC and a sub-feature of the Humber SPA.

The saline lagoon feature is currently is favourable conservations status.

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 saline lagoons 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.

Attribute	Target
Extent	No decrease from an established baseline, subject to natural change
Geomorphology (Study of landforms and the processes that shape them)	Physical characteristics/barrier
Salinity	Average seasonal salinity and seasonal maxima and minima, should not deviate significantly from an established baseline, subject to natural change
Water clarity	Average light attenuation should not deviate significantly from an established baseline, subject to natural change
Nutrient status - green algae mats	No increase in extent or cover of green algal mats from an established baseline, subject to natural change
Biotope (habitat type) abundance, distribution etc/ Characteristic species	Density of <i>Chaetomorpha linum</i> and <i>Ruppia</i> spp: Average shoot density should not deviate significantly from an established baseline, subject to natural change

Threats, management and gaps in management

Threats 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

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>

<p>Water clarity: Water quality issues</p>	<p>The Water Framework Directive has identified and delivering a number of actions relating to the improvement of water quality.</p> <p>Humber Clean oil response plan is in place and the Strategic Environment Group is reviewing the plan.</p>	<p>Rubbish issues at Humberston Fitties Lagoon.</p>	<p>11</p>
<p>All targets: climate change, in particular impacting on flow of water between estuary and lagoon.</p>		<p>Undertake a climate change vulnerability assessment</p>	<p>13</p>
<p>Characteristic species: Non-native species</p>		<p>Understanding of non-natives present and impacts.</p>	<p>12</p>



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

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