

Teesmouth and Cleveland Coast Special Protection Area/Ramsar

Evidence Pack

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Teesmouth and Cleveland Coast Special Protection Area/Ramsar – Evidence Pack

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Further information

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1. Site Details

From Teesmouth and Cleveland Coast Special Protection Area citation:

The Teesmouth and Cleveland Coast Special Protection Area (SPA) is a wetland of European importance, located on the coast of north-east England between Castle Eden Dene Mouth in the north and Marske-by-the-Sea in the south. It includes the little tern colony at Crimdon Dene Mouth and the common tern colony at Saltholme. The coastal parts of the site include a rocky limestone headland with sandy beaches stretching to the north, and much of Tees Bay to the south. South of Hartlepool, the Magnesian limestone is replaced by sandstones and mudstones, as far as Saltburn, creating low cliffs and sandy beaches.

The SPA comprises of a wide variety of habitats including: intertidal sand and mudflats, rocky shore, saltmarsh, freshwater marsh, saline lagoons, sand dunes and estuarine and coastal waters on and around the Tees estuary, which has been considerably modified by human activities. These habitats provide feeding and roosting opportunities for important number of waterbirds in winter and during passage periods including in particular common redshank, red knot and ruff, which occur in internationally important numbers. Freshwater and brackish pools also support breeding avocet during summer.

The saltmarsh and mudflat habitats of the Teesmouth and Cleveland Coast SPA are of great importance to a diverse assemblage of bird species. Mudflats support high densities of benthic invertebrates, including worms, molluscs and crustaceans, which provide an important food resource for migrant and overwintering SPA bird species. Areas of saltmarsh provide significant feeding and roosting opportunities for many species of waterbird including common redshank and red knot.

In summer, little tern breed on the sandy beaches within the site and feed out at sea while the common tern, which breed at various locations, feed within the River Tees and associated water bodies and within the wider estuary mouth and bay. In late summer, Sandwich tern aggregate in important numbers at Coatham Sands, Seal Sands, North Gare Sands/Seaton Snook and Bran Sands when on passage.

2. Reasons for European Designation

The SPA is designated for the following features:

- Avocet, *Recurvirostra avosetta* - A132-A, b
- Common tern, *Sterna hirundo* - A193, b
- Knot, *Calidris canutus* - A143, nb
- Little tern, *Sterna albifrons* - A195, b
- Redshank, *Tringa totanus* - A162, nb
- Ruff, *Calidris pugnax* - A151, nb

- Sandwich tern, *Thalasseus sandvicensis*, syn. *Sterna sandvicensis* - A191, nb
- Waterbird assemblage

The Teesmouth and Cleveland Coast Ramsar is designated for the following features:

- Knot, *Calidris canutus islandica* - Wintering
- Redshank, *Tringa totanus* - Passage
- Sandwich tern, *Thalasseus sandvicensis*, syn. *Sterna sandvicensis* – Passage
- Waterbird assemblage – Wintering

Links to Conservation Advice:

- [Conservation Advice](#)
- [JNCC Ramsar Information Sheet](#)

3. Nutrient Pressure and Water Quality

Nutrient pressure(s) for which the site is unfavourable:

- Nitrogen

In the Conservation Objectives Supplementary advice for Teesmouth and Cleveland Coast SPA the target for the site related to nutrients is to **‘restore water quality to mean winter dissolved inorganic nitrogen levels where biological indicators of eutrophication (opportunistic macroalgal and phytoplankton blooms) do not affect the integrity of the site and features’**.

The Water Framework Directive (WFD) Dissolved Inorganic Nitrogen (DIN), Phytoplankton and Opportunistic Macroalgae ‘weight of evidence’ assessment criteria are currently used to assess the condition for Lindisfarne SPA/Ramsar site. Failure to achieve Good Ecological Status for these elements would mean the site is in unfavourable condition in relation to nutrients.

Table 1 – EA WFD classification for 2019

Location (incl Easting, Northing)	Dissolved Inorganic Nitrogen (DIN)	Macroalgae	Overall waterbody
Tees Lower and Estuary (453495, 522922)	Moderate	Moderate	Moderate

Therefore, the Teesmouth and Cleveland Coast SPA/Ramsar has been assessed as at risk of eutrophication, using the Environment Agency’s Weight of Evidence approach. This takes into account assessments of the WFD DIN levels which are high within the site,

combined with opportunistic macroalgae and phytoplankton quality elements using the respective assessment tools. Adverse effects to integrity should be avoided.

Therefore opportunistic macroalgae levels should be restored so there is no adverse effect to the feature through limited algal cover (<15%) and low biomass (< 500 g m²) of macroalgal blooms in the available intertidal habitat, with affected area of available intertidal habitat affected by opportunistic macroalgae less than 15 %. There should also be limited (<5%) entrainment of algae in the underlying sediment (all accounting for seasonal variations and fluctuations in growth). Phytoplankton levels should be restored to above a WFD assessment tool score of 0.6, where there is only a minor (a) decline in species richness, and (b) disturbance to the diatom- dinoflagellate succession in the spring bloom compared to reference conditions.

Algal mats can be observed on intertidal mud and sandflats across the site during the summer months, particularly at Seal Sands, indicating excess nutrient levels. The presence of dense algal mats can impair waterbird foraging success. Nutrient levels should be reduced to increase suitable foraging area for this feature. The presence of algal mats on Seal Sands has resulted in the 'unfavourable' Site of Special Scientific interest (SSSI) status for this part of the SPA.

High concentrations of nutrients in the water column can cause phytoplankton and opportunistic macroalgae blooms, leading to reduced dissolved oxygen availability. This can impact sensitive fish, epifauna and infauna communities, and hence adversely affect the availability and suitability of bird breeding, rearing, feeding and roosting habitats. The aim is to seek no further deterioration and improve water quality.

Any nutrients entering the catchment upstream of the locations which are exceeding their nutrient targets will make their way downstream and have the potential to further add to the current exceedance. Therefore, the entire catchment for the Tees is included in the catchment map.

4. Additional Information

Habitat type impacted by nutrients – Estuarine/Coastal.

The Teesmouth and Cleveland Coast SPA is legally underpinned by Teesmouth and Cleveland Coast SSSI.

SSSI Interest Features include:

- >20,000 Non-breeding waterbirds
- Aggregations of breeding birds - Avocet, *Recurvirostra avosetta*
- Aggregations of breeding birds - Common tern, *Sterna hirundo*
- Aggregations of breeding birds - Little tern, *Sterna albifrons*
- Aggregations of non-breeding birds - Gadwall, *Anas strepera*
- Aggregations of non-breeding birds - Knot, *Calidris canutus*

- Aggregations of non-breeding birds - Purple sandpiper, *Calidris maritima*
- Aggregations of non-breeding birds - Redshank, *Tringa totanus*
- Aggregations of non-breeding birds - Ringed plover, *Charadrius hiaticula*
- Aggregations of non-breeding birds - Ruff, *Philomachus pugnax*
- Aggregations of non-breeding birds - Sanderling, *Calidris alba*
- Aggregations of non-breeding birds - Sandwich tern, *Thalasseus sandvicensis*, syn. *Sterna sandvicensis*
- Aggregations of non-breeding birds - Shelduck, *Tadorna tadorna*
- Aggregations of non-breeding birds - Shoveler, *Anas clypeata*
- Assemblages of breeding birds - Mixed: Sand-dunes and Saltmarsh, Lowland open waters and their margins
- Common seal, *Phoca vitulina*
- EC - Hettangian Sinemurian and Pliensbachian
- FB - Quaternary of NE England
- Fixed dune grassland
- Humid dune slacks
- Invert. assemblage F111 bare sand & chalk
- Sand dune; strandline, embryo and mobile dunes (SD1-6)
- SM4-28 - Saltmarsh

Appendix

Component SSSIs of Teesmouth and Cleveland Coast SPA/Ramsar

Map of component SSSIs of Teesmouth and Cleveland Coast SPA/Ramsar



Ribble Valley

York East Riding

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Scale: 1:420,000

European protected sites requiring nutrient neutrality strategic solutions
**Component SSSIs of
 Teesmouth and Cleveland Coast SPA/Ramsar**

- Local Authorities
- SSSI subject to nutrient neutrality strategy
- Nutrient neutrality SSSI catchment
- National Parks



List of abbreviations

DIN – Dissolved Inorganic Nitrogen

SPA – Special Protection Area

SSSI – Site of Special Scientific Interest

UNESCO – United Nations Educational, Scientific and Cultural Organisation

WFD – Water Framework Directive

Glossary

Ramsar – A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention, also known as the ‘The Convention on Wetlands’, an intergovernmental environmental treaty established in 1971 by UNESCO

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