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England Coast Path Stretch: Mablethorpe to Easington

Nature Conservation Assessment



About this document

This document should be read in conjunction with the published Reports for the Mablethorpe to Humber Bridge stretch and the Humber Bridge to Easington stretch and the Habitats Regulations Assessment (HRA).

The Coastal Access Reports contain a full description of the access proposals, including any additional mitigation measures that have been included.

A HRA is required for European sites (SPA, SAC and Ramsar sites). The HRA is published alongside the Coastal Access Reports.

This document, the Nature Conservation Assessment (NCA), covers all other aspects (including SSSIs, MCZs and undesignated but locally important sites and features) **in so far as any HRA does not already address the issue for the sites and feature(s) in question**.

The NCA is arranged site by site. Maps A-F shows designated sites along this stretch of coast.

See Annex 1 for an index to designated sites and features for this stretch of coast, including features that have been considered within the HRA.

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Introduction

This is a surprisingly varied section of coastline, with a number of interesting and diverse features. The habitats range from saltmarsh, coastal lagoons and standing water to sand dunes, intertidal mud, sand and subtidal sediments, sand banks and coastal cliffs and foreshore. It is a constantly changing landscape due to the tidal movements and weather conditions.

The coast and coastal fringe is of national and international importance for nature conservation and some habitats support internationally significant populations of birds, grey seals, vascular plants and invertebrates.

The area is covered by a number of designations including SSSIs, MCZ, SAC, SPA, NNR and Ramsar site.

A number of coastal towns and settlements act as access points for tourists, day visitors and recreational users. The central point of these two stretches is marked by the Humber Bridge, a large suspension bridge spanning the Humber. The towns of Hull, Grimsby and Immingham have significant industrial heritage and important docks, and Cleethorpes is a popular destination in the tourism sector. The area is also renowned for its bird watching and wildlife photography opportunities throughout the north and south bank.

The England Coast Path (ECP) proposals follow public rights of way and existing walked routes along some sections of the trail. It also secures an associated coastal margin for the public to enjoy. Where sensitive nature locations exist the proposals have considered limiting access at certain times and locations. The proposals have been developed in conjunction with Natural England's area teams, National Nature Reserve staff, local partners, and partnership groups including the Humber Nature Partnership, Yorkshire Wildlife Trust, Lincolnshire Wildlife Trust, Royal Society for the Protection of Birds, Ministry of Defence, British Trust for Ornithology, Spurn Bird Observatory, county and district councils and local access and recreational groups.

Humber Estuary SSSI

Is this site also part of a European site? Yes

This SSSI overlaps with the European sites of:-

- Humber Estuary SAC
- Humber Estuary SPA
- Humber Estuary Ramsar site
- Greater Wash SPA

Notified features of the SSSI that are also qualifying features of the European designated site are omitted from this assessment, as they are considered as part of the HRA (Habitat Regulations Assessment). For a detailed list of overlapping features and designated sites please see Annex 1. These features are:-

SSSI Notified Feature	Site Designation	Overlapping European Designated Site
Estuaries	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
Aggregations of non-breeding birds – bar-tailed godwit	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – dunlin	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – redshank	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – shelduck	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Sea lamprey	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
River lamprey	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
Aggregations of non-breeding birds – ruff	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – golden plover	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA

SSSI Notified Feature	Site Designation	Overlapping European Designated Site
Aggregations of non-breeding birds – bittern	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – knot	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – black-tailed godwit	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Aggregations of non-breeding birds – avocet	SSSI/Ramsar site/SPA	Humber Estuary Ramsar site and Humber Estuary SPA
Grey seal	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
Moderately exposed sandy shores (with polychaetes and bivalves)	SSSI/Ramsar site	Humber Estuary Ramsar site
Saline coastal lagoons	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
Fixed dune grassland	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
SD1-6 Sand dune; strandline, embryo and mobile dunes	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
SM4-28 Saltmarsh	SSSI/Ramsar site/SAC	Humber Estuary Ramsar site and Humber Estuary SAC
MG11 Festuca rubra – Agrostis stolonifera – Potentilla anserina grassland	SSSI/Ramsar site	Humber Estuary Ramsar site

Subtidal features and standing waters are not covered by this assessment, as the coastal access proposals are not within scope of these features.

This assessment covers the following features:

- Vascular plant assemblage
- Invertebrate assemblage
- Geology: EC Quaternary of East England and IA Coastal geomorphology
- Assemblages of breeding birds Lowland open waters and their margins
- Aggregations of non breeding birds curlew
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- Aggregations of non breeding birds dark-bellied brent goose
- Aggregations of non breeding birds goldeneye
- Aggregations of non breeding birds greenshank
- Aggregations of non breeding birds grey plover
- Aggregations of non breeding birds lapwing
- Aggregations of non breeding birds oystercatcher
- Aggregations of non breeding birds pochard
- Aggregations of non breeding birds ringed plover
- Aggregations of non breeding birds sanderling
- Aggregations of non breeding birds scaup
- Aggregations of non breeding birds teal
- Aggregations of non breeding birds turnstone
- Aggregations of non breeding birds whimbrel
- Aggregations of non breeding birds wigeon

Current situation

The Humber Estuary SSSI covers the differing habitats of the estuary (with component habitats of intertidal mudflats and sandflats and coastal saltmarsh) and the associated saline lagoons, sand dunes and standing waters. It is split into 187 units and is of national importance for geological interest and coastal geomorphology of Spurn. The notified features for the SSSI are in a mix of favourable and unfavourable condition. The whole area has a range of recreational, business/industrial and pleasure use and this contributes to the impacts on, and therefore varying SSSI condition status. The significant numbers of recreational users and day visitors for watersports, walking, picnicking, dog walkers and other ad hoc recreation may create disturbance for the internationally and nationally important numbers of non-breeding waterbirds, the nationally important assemblage of breeding birds, and at Donna Nook the colony of breeding grey seals.

The north shore of the estuary can, for much of its length, be accessed by public rights of way, often coinciding with the flood defences. In areas where public rights of way do not exist such as around Sunk Island, between Skeffling and Kilnsea, and from Kilnsea to Easington, informal access still takes place on the flood banks. The more isolated sections of flood bank are genuinely remote and are visited much less.

The south shore again, for much of its length, can be accessed by public rights of way. There are some gaps around Immingham Docks and at Donna Nook Air Weapons Range. In other areas where public rights of way do not exist such as beyond Horseshoe Point to Tetney Haven, informal access still takes place on the flood banks.

There are considered to be pinch points at various locations, where visitor impact is higher and frequency of use is daily and sometimes multiple uses in a day e.g. dog walkers and water sports. The main pinch points are Cleethorpes to Humberston Fitties, from the leisure centre, and including Thorpe Park Caravan Park and Tetney Marsh at the Humber Mouth Yacht Club, Donna Nook for viewing grey seals during the breeding season and Spurn Discovery Centre. These areas all have existing accessible, well used visitor points.

The coastal path proposals will use existing paths and access routes where possible to try and ensure access is steered away from sensitive areas. The pressures at Donna Nook for grey seals

are addressed within the HRA, as are the aggregations of non-breeding waterbirds. River and sea lamprey are also discussed within the HRA.

The proposals also secure an associated coastal margin of land. The term spreading room to refer to those parts of the coastal margin, other than the trail itself that will be available to the public for enjoyment on foot. This does not include areas that that are automatically excepted from coastal access rights, nor land restricted using the powers under available under Chapter 2 of the Countryside and Rights of Way Act 2000.

Risk analysis

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
Invertebrate assemblage	Many scarce and threatened species occur within the Humber SSSI, especially beetles and moths. Invertebrates associated with estuarine and freshwater/terrestrial habitats are well represented across the Humber estuary. The estuary also contains a nationally scarce marine species, the tentacled lagoon worm <i>Alkmaria romijni</i> , and the lagoon sand shrimp <i>Gammarus insensibilis</i> . Both are listed in schedule 5 of the Wildlife & Countryside Act 1981. The sand dunes at Spurn support the ground beetle <i>Amara lucida</i> , the white colon moth <i>Sideridis albicolon</i> and the shore wainscot moth <i>Mythimna litoralis</i> .	The risks to invertebrates are considered to be trampling (footfall), compaction and general disturbance by humans and dogs. Some species are sensitive to changes in land use, and may look to move if they are threatened. If a species is mobile it could escape, and those able to fly will be less at risk. Both the tentacled lagoon worm and the lagoon sand shrimp are found within water at locations where the proposed trail is screened from the habitat and where the habitats lie landward of the trail (and therefore not included in spreading room). It is therefore concluded the species will not affected by the England Coast Path proposals. Within the assessment the whole area of the proposals has been considered, including the coastal margin. If people do not keep to the main path, some footfall could impact on areas either side of the path. Some of these areas may contain invertebrates mentioned within the SSSI designation (e.g. ground beetle <i>Amara lucida</i>). However, given there is

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
	The saltmarshes (such as those at Welwick) provide foraging grounds for the solitary bee <i>Colletes</i> <i>halophilus</i> . The flowers of sea aster provide the larval food plant for the starwort moth <i>Cucullia asteris</i> .	already an accepted and managed level of access around Spurn, it is likely the coastal access proposals will not increase this to elevated levels that could present additional risks to invertebrates, and therefore it is concluded no impact on the ground beetle or moths. At Spurn, the area is wardened by the Yorkshire Wildlife Trust. This seeks to control access to the designated paths and prevent desire lines forming. Improved signage will guide people away from sensitive areas and the current provision of visitor facilities and level of wardening suggests the large majority of people will stay on the path. Therefore it is the opinion the proposals will not significantly impact on the bees or moths interest
	Brackish and freshwater reed beds support the reed beetle <i>Donacia clavipes</i> and the silky	features. The coastal access rights on the saltmarsh and mud flats have either been excluded, as unsuitable for access or for nature conservation reasons, (as part of the HRA), under section 25A or 26(3a) of the CROW Act. These areas are more difficult and dangerous to access with creeks and pans present). The HRA discusses this in more detail. On the basis of the proposed access restrictions, it is unlikely the coastal access proposals will harm to the invertebrate assemblage associated with the saltmarsh habitats The reed beds are located outside the coastal access

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
	wainscot moth <i>Chilodes</i> <i>maritimus</i> .	provision and will therefore not need to be considered in this assessment
	Areas of willow scrub within the reed beds provide the larval food plant for the cream- bordered green-pea moth <i>Earias clorana.</i>	Scrub areas and the reed beds will not be impacted by the proposals, as the route will not go through these features. In addition, any areas covered by coastal access margin adjacent to the reed beds are also considered low risk for disturbance and human impacts, as these are largely inaccessible on foot.
	Fully aquatic species include the water beetles <i>Agabus</i> <i>conspersus</i> and <i>Helophorus</i> <i>fulgidicollis</i> .	Aquatic species will also not be harmed by the coastal access proposals as these habitats are located outside the coast access provision.
Vascular plant assemblage	The site includes at least ten nationally scarce species, characteristic of coastal and wetland habitats: Bulbous foxtail, bulbous meadowgrass, divided sedge, sea buckthorn, slender hare's- ear, spiral tasselweed, rush- leaved fescue, curved hard- grass, suffocated clover and sea clover. Common couch sub-species <i>Elytrigia repens</i> <i>ssp. Arenosa</i> is also a notable taxon. In addition, to the nationally scarce species present, the Humber is interesting phytogeographically, as it supports populations of	The coastal access rights on the saltmarsh have either been excluded, as unsuitable for access or for nature conservation, (as part of the HRA), under section 25A or 26A of the CROW Act. The marshes are reasonably difficult and dangerous to access with their creeks and pans. This difficulty is highlighted in the Access and Nature Conservation Reconciliation supplementary guidance for England, commissioned by Natural England: NPR06/01/003, <i>J Lowen, D Liley, J Underhill- Day, D Whitehouse</i> , 05/12/2008. This suggests visitor rates to such areas are
	several species that occur at or close to the limits of their geographical range on the east coast of Britain. For example saltmarsh flat-sedge <i>Blysmus rufus</i> is at its southern limit, and slender hare's-ear <i>Bupleurum</i>	comparatively low, suggesting together with the access restrictions the vascular plant assemblages will not be significantly impacted by the England Coast path proposals. Therefore it is

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
	<i>tenuissimum</i> is at its northern limit.	concluded the features will not be impacted.
	New pathways opening up could trample features.	
	Unit 158 Easington Bank has vascular plant assemblages. This is located near Kilnsea Wetlands. It is currently unfavourable no change condition. The area has been historically horse grazed and the SSSI condition monitoring records confirm there is no evidence of sand dune or marsh communities. The proposals follow the flood- banks here on an existing walked route.	The vascular plant assemblage in unit 158 is located landward of the England Coast path proposals, with the proposals following an existing walked route on the flood bank. The proposal will not impact the interest features, as the coastal access margin only extends to the adjacent fence line.
	Unit 85 Pyewipe is listed for vascular plants. It is the sandy mudflats area seawards of unit 86 and is in unfavourable recovering condition. Behind the sandflats at Cleethorpes on the mature sand dunes, the vegetation supports rare chestnut flat sedge, bulbous meadowgrass and dense silky bent. Unit 171 is listed for vascular plants. At Spurn Point on the dunes	It is concluded the England Coast Path will have no direct impacts on unit 85 Pyewipe vascular plants assemblage, as this area has been excluded from the coastal access proposal under section 25 of the CROW Act. The area of saltmarsh beyond the mud flats is also restricted access.
	there is Marram grass and sea buckthorn. Unit 164 Spurn Point has vascular plant assemblages. There is existing management in place across the National Nature	Unit 171 is landward of the proposals and therefore outside the scope of the proposals, therefore no impact on these features.
	Reserve to try and protect sensitive flora and wildlife, and to address the SSSI condition.	At this location (Spurn, unit 164) the trail turns northwards, away from Spurn Point but the
	The colonising saltmarsh at Tetney and along this part of the coast is not typical	feature is present within spreading room.
	Salicornia europaea agg. (Common Glasswort) which is found below mean high water (and is picked as Samphire),	Unit 164 has active wardening by Yorkshire Wildlife Trust. This seeks to ensure people keep to the main path. The trust also have signage to

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
	but rather a mixture of the rarer species such as: <i>Salicornia dolichostachya</i> (Long-spiked Glasswort), Salicornia fragilis (Yellow Glasswort), <i>Salicornia ramosissima</i> (Purple Glasswort) and <i>Salicornia pusilla</i> (One-flowered Glasswort) Likewise, <i>Limonium humile</i> (Lax-flowered Sea-lavender) is known from the same section of coast.	guide people away from sensitive areas and there is existing provision of visitor facilities to further inform visitors and proactively manage the site. The trust has a National Nature Reserve Management Plan in place (July 2019 – June 2024), and they consider 'the measures already in place and those additional likely restrictions required as part of the England Coast Path HRA; it is unlikely that this will add significant additional pressure'. It is concluded there will be no impact on the features of unit 164 It is concluded the England Coast Path will have no direct impacts on the Glasswort and Sea Lavender assemblage at Tetney, as this area has been excluded from the coastal access proposal under section 26a of the CROW Act.
Geology: coastal cliffs and foreshore (South Ferriby cliff) quaternary of East England	Unit 33, covering 28ha. Late Pleistocene sediments. Recorded as favourable condition (2010). Relatively unchanged, but has active coastal processes taking place. South Ferriby cliff is located west of the Humber Bridge and therefore outside the scope of the proposals.	Given the location of this SSSI feature and the coast access proposals there will be no interaction with the England Coast Path and therefore no impacts on the features.
Geology: Coastal geomorphology (Spurn Head SSSI)	Spurn sits at the mouth of the estuary and is a remote, and distinctive peninsula. It is a long sand and shingle spit, which extends out across the Humber estuary, providing shelter from the North Sea. It comprises sandy beaches on the east side, which are exposed to the action of the sea, while on the sheltered	The geology feature is not sensitive to changes in access and is robust to recreational pressures. It is concluded there will be no impact on the geological feature from the access proposals.

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
	 west side sediment has been deposited, and extensive mud flats and saltmarshes have developed. Apart from bait digging, it is considered there is relatively little disturbance. Unit 155 Spurn Bight has low shore sandy habitats with polychaetes/amphipods. There is an extensive network of creeks and pans with sandy muds. Unit 164 Spurn Head contains supra-littoral sediment. The strandline, mobile and embryo dunes are in favourable condition but the unit is failing condition on vascular plants, fixed dune grasslands, saltmarsh, geomorphology and assemblage of non- breeding birds. Positive management is in place with Yorkshire Wildlife Trust actively managing the site. There is already parking, toilets and existing footpaths. Access is currently restricted under S25 and S26 to help managed sensitive flora and wildlife. 	It is concluded the coastal access proposals will have no impact on Spurn Bight, as the CRoW access rights have been excluded, as unsuitable for access. The trail heads northwards before it reaches this location (Spurn, unit 164). Spurn Point lies within the coastal access margin, however there are access restrictions in place at this location and it is actively wardened and managed by Yorkshire Wildlife Trust to ensure access is discrete and outside sensitive areas. Therefore it is considered no likely impact from the proposals. It is concluded the proposals will not impact on the geology features. The dune elements are covered within the HRA.
Assemblages of breeding birds – Lowland open waters and their margins	The Humber estuary supports a breeding bird assemblage of lowland open waters and their margins, including nationally important numbers of bittern, redshank, marsh harrier, avocet and bearded tit (SSSI citation). bittern, avocet and marsh harrier are discussed in more detail within the HRA. Other birds in the assemblage are little grebe, great crested grebe, mute swan, gadwall, shoveler, tufted duck, water rail, little ringed plover, snipe, common tern, cuckoo, kingfisher, yellow wagtail, reed	For conclusions on bittern, redshank, marsh harrier and avocet please refer to the HRA. The England Coast Path will be supported by improvements to signage, way markers and finger-posts along this stretch, which will assist users to follow the trail. For further information and conclusions please refer to the HRA.

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
features)	bunting, and warblers – grasshopper, sedge and reed. Most of these birds are concentrated within the clay pits, lagoons and reed bed areas that are located around Barton (specifically Far Ings, Read's Island and Blacktoft Sands). These areas lie outside the scope of the England Coast Path proposals, as they are west of the Humber Bridge. It is likely some species may also be found outside these key areas, as there are other wetland habitats found locally. SSSI units 118 – 134 are east of the Humber Bridge and contain wetland areas, which are likely to be used by some of the birds listed within the SSSI features (e.g. cuckoo, bearded tit and yellow wagtail). These units are adjacent to the England Coast	As the key areas (as identified in adjacent column) sit outside the scope of the proposals it is concluded there will be no impact from the access proposals. Given the current public access adjacent to these other wetland areas, the implementation of the England Coast Path proposals is unlikely to have any significant additional impacts, and it is concluded there will be no significant change and no
	Path proposals and are mostly in-land of the route, therefore outside the scope of the proposals. Some land is seaward of the route. There are already existing walked routes along here with a public right of way along the length of the flood banks. This runs almost along the full length of this part of the estuary (from the eastern corner at Goxhill Haven to the Humber Bridge in the west. There are access restrictions in place (section 25A) on the mudflats and marsh, but not the foreshore.	impact on these features. With the proposed access restrictions in place on the mud flats and saltmarsh it is concluded there will be no negative impacts on these areas from the England Coast path proposals, as these are aligned with existing linear walked routes.
Aggregations of non-breeding birds:- • curlew • dark-bellied brent goose	These birds are SSSI features only, however they are also part of the non breeding water-bird assemblage that forms part of the SPA designation. Wintering	Please refer to the HRA for discussions and conclusions on these features.

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
 goldeneye greenshank grey plover lapwing oystercatcher pochard ringed plover Sanderling scaup turnstone whimbrel wigeon 	 waterfowl and passage waders are widely distributed throughout the estuary, with the distribution of individual species reflecting habitat distribution and species ecology. Redshank is noted to frequent the grazed areas of saltmarsh in several locations on the estuary including SSSI unit 100 on the south bank and some areas on the north bank. The HRA discusses year round access restrictions to help protect these features. The aggregations of non breeding birds are considered in further detail as part of the HRA. 	

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? Yes

New access management infrastructure is required: new surfacing plus some signage and access ramps. This is discussed further in the HRA.

Where necessary, the land owner(s) will instigate the SSSI assent process by writing to us to confirm the timing of works and how operations to be undertaken in line with these conditions. Natural England will provide further advice as necessary

Saltfleetby-Theddlethorpe Dunes SSSI

Is this site also part of a European site? Yes

This SSSI overlaps with the European sites of:-

- Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC
- Humber Estuary Ramsar site
- Humber Estuary SPA
- Greater Wash SPA

Notified features of the SSSI that are also qualifying features of the European designated site are omitted from this assessment, as they are considered as part of the HRA (Habitats Regulations Assessment).

For a full list of overlapping features and designated sites Annex 1 for further information. These features are:-

SSSI Notified Feature	Site Designation	Overlapping European Designated Site
>20,000 non breeding water birds	SSSI/SPA	Humber Estuary SPA
Aggregations of breeding birds – little tern	SSSI/SPA	Humber Estuary SPA/Greater Wash SPA
Aggregations of non-breeding birds – Brent goose	SSSI	
Aggregations of non-breeding birds – dunlin	SSSI/SPA/Ramsar site	Humber Estuary SPA/Humber Estuary Ramsar site
Aggregations of non-breeding birds – knot	SSSI/SPA/Ramsar site	Humber Estuary SPA/Humber Estuary Ramsar site
Aggregations of non-breeding birds – redshank	SSSI/SPA/Ramsar site	Humber Estuary SPA/Humber Estuary Ramsar site
Aggregations of non-breeding birds – sanderling	SSSI	
Aggregations of non-breeding birds – wigeon	SSSI	

SSSI Notified Feature	Site Designation	Overlapping European Designated Site		
Moderately exposed sandy shores	SSSI/Ramsar site	Humber Estuary Ramsar site		
Natterjack toad	SSSI/Ramsar site	Humber Estuary Ramsar site		
SD2-7 Sand dunes: strandline, embryo and mobile dunes	SSSI/ SAC/Ramsar site	Humber Estuary SAC/Saltfleetby- Theddlethorpe Dunes & Gibraltar Point SAC/Humber Estuary Ramsar site		
SD8-9 Sand dunes: dune grassland	SSSI/ SAC/Ramsar site	Humber Estuary SAC/ Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC/ Humber Estuary Ramsar site		
SD10 <i>Carex arenaria</i> dune community "fixed"	SSSI/SAC/Ramsar site	Humber Estuary SAC/ Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC/ Humber Estuary Ramsar site		
SD17 <i>Potentilla anserin – Carex</i> <i>nigra</i> "humid" dune slack community	SSSI/SAC/Ramsar site	Humber Estuary SAC/ Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC/ Humber Estuary Ramsar site		
Sheltered muddy shores (including estuarine muds)	SSSI/SAC/Ramsar site	Humber Estuary SAC/Humber Estuary Ramsar site		
SM10 Transitional low marsh vegetation with <i>Puccinellia maritima</i> , annual <i>Salicornia</i> species and <i>Suaeda maritima</i>	SSSI/SAC/Ramsar site	Humber Estuary SAC/Humber Estuary Ramsar site		

This assessment covers the following features:

- Assemblages of breeding birds scrub
- Invertebrate assemblage
- Vascular plant assemblage

Current situation

Saltfleetby-Theddlethorpe Dunes SSSI is split into two units. Unit 1 is littoral sediment and is in favourable condition (Natural England, 2009). There are no major human influences to disrupt the interest features and the nature of the habitat (saltmarsh) means this is likely to continue. Unit 2 is supra-littoral sediment and is in unfavourable-recovering condition. It has a greater human interference, as it contains dune systems that are accessible to the general public.

This is a nationally important site and the whole area is managed as a National Nature Reserve. It includes intertidal flats, dunes, freshwater marshes and supports an exceptionally large range of flora and fauna. Other notable features include Natterjack toads, of which this is the most north easterly breeding site in Britain. The site also supports extensive feeding and roosting grounds for wildfowl and waders, and a significant vascular plant assemblage, including a rich orchid flora found on the interface of freshwater and dune habitats. There is also an invertebrate assemblage with some notable moths and rare beetles.

The coastal access proposals will run directly adjacent and partly through the dunes of unit 2. There is already existing access via a public right of way and an existing walked route.

There is a caravan site present at the southern point of the SSSI, which is also the starting point for this section of the coastal access proposals. The remainder of this length covering the SSSI is sparsely populated, with Theddlethorpe All Saints and Saltfleetby villages further inland. Current usage is estimated to be a mix of local residents (dog walkers in the main) plus tourists staying at the caravan park and other recreational users. Where physically accessible the coastal margin is already very well used.

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
Assemblages of breeding birds - scrub	There are breeding birds within the dune scrub with some areas containing breeding blackcap, garden warbler, whitethroat and nightingale (SSSI citation, 13 October 1988). Turtle Dove also breed in the area. The site is already very well used (Strava data confirms it is a regular route and there is plenty de-facto access present). There is an existing PRoW along much of this section and this largely follows the landward edge of the SSSI. There are also clear desire lines with main access points and existing walked routes	There are proposals to cut scrub to establish the alternative route for the trail during seal breeding season. There are no breeding Turtle Dove known on the section to be cut. Access management infrastructure includes way- markers, advisory signage and some repairs to the existing boardwalk near the sea buckthorn area. It is considered the proposals will cause negligible change in the current access situation, the trail primarily following the

Risk analysis

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion		
	used for people to access the beach.	existing public rights of way and the spreading room coinciding with previously designated access land.		
		Therefore conclude no impact on these features.		
Invertebrates assemblage	There is an invertebrate assemblage present, with species mostly found within the dune scrub. There is existing public access with PRoW along much of the site. Light trampling or disturbance may be beneficial to maintaining some areas for invertebrates but an increased access could result in trampling or localised damage. It could also introduce invasive species.	The addition of the England Coast Path proposals will largely follow the existing PRoW, which is well used. It is considered the proposals will not create an increase in footfall that would significantly increase the risk of damage to invertebrates, as the invertebrates are mostly found within the scrub areas that are not subject to direct trampling. It is considered the proposals will cause negligible change in the current access situation, the trail primarily following the existing public rights of way and the spreading room coinciding with previously designated access land. Therefore conclude no impact on these features.		
Vascular plant assemblage	Unit 2 the dune slacks and interface between the freshwater and dune systems contains rich, abundant flora including pyramidal and bee orchids. These are located off the existing walked routes. There are also fen communities present and these areas also contain the breeding areas of Natterjack toads. This is discussed within the HRA. There are existing signs present that will be replaced	There is an existing walked route on the dunes, and this is considered the most resilient surface. Some access could result in trampling, however a low level sward disturbance is considered negligible and light trampling may actually be beneficial to the dynamism of the dunes. The main vascular plants are away from the walked routes and it is expected the addition of the England Coast Path will not create significant, additional footfall that would cause		

Feature (or group of features)	Location/Consideration	Risk analysis/Conclusion
	and some new way markers installed as part of the proposals. There will also be some advisory signs installed, which are intended to raise awareness of the site and its features.	damage to the dune systems and vascular plant assemblage. It is concluded the improvements to access will encourage people to keep to the main paths and allow improved visitor experience whilst helping protect the features of the site. Therefore overall it is concluded there will be no negative impacts on the vascular plant assemblage feature.

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? Yes

Improvements will be made to the access management infrastructure including: way markers, multi-finger posts, kissing gates and advisory signage. This is discussed in further detail in the HRA.

Where necessary, the land owner(s) will instigate the SSSI assent process by writing to us. Natural England will provide further advice as necessary.

North Killingholme Haven Pitts SSSI

Is this site also part of a European site? Yes

This SSSI overlaps with the European sites of:-

- Humber Estuary Ramsar site
- Humber Estuary SPA

Notified features of the SSSI that are also qualifying features of the European designated site are omitted from this assessment, as they are considered as part of the HRA (Habitats Regulations Assessment).

For a full list of overlapping features and designated sites please see Annex 1 for further details. These features are:-

SSSI Notified Feature	Site Designation	Overlapping European Designated Site			
Aggregations of non-breeding birds - black-tailed godwit	SSSI/SPA/Ramsar site	Humber Estuary SPA/Humber Estuary Ramsar site			
Saline coastal lagoon	SSSI/SAC/Ramsar site	Humber Estuary SAC/Humber Estuary Ramsar site			
Waterbird assemblage	SSSI/SPA/Ramsar site	Humber Estuary SPA/Humber Estuary Ramsar site			

This assessment covers the following features:

• Schedule 5 species – Tentacled lagoon worm *Alkmaria romijni* and segmented (*annelid*) worm.

Current situation

This site is situated adjacent to the Humber estuary, near the town of Immingham on the south bank. The site has three pits of differing size and salinity. The pits are very rich in fauna with nine species of specialist lagoonal species recorded.

In terms of the schedule 5 species, the small polychaete worm (annelid) lives in mud tubes in sediment within the shallow permanent water in the saline lagoons. The Tentacled lagoon worm, which is a notified SSSI feature is rare in the UK. It is a small worm, up to 5mm long that is found in

muddy sediments in lagoons and sheltered estuarine sites. It requires muddy sediments in brackish water that is not too salty. This location is the furthest north it is recorded in England.

Other species of note include the prawn *Palaemonetes varians,* the molluscs *Hydrobia ventrose* and *Hydrobia neglecta* and the bryzoan *Conopium seurati.*

Unit 1 is currently in favourable condition (Natural England 2018). This unit is meeting the targets for the features and the water level management plan is being implemented. Unit 2 is unfavourable no change. This is recorded as failing targets for extent of habitat, diversity of saline lagoon invertebrate biotope and salinity, and population of tentacled lagoon worm. The underlying reasons being linked to reduction of ingress of saline water and too low water levels. There are no recorded current threats from disturbance or walking on either unit.

Unit 1 and 2 both sit landward of the coastal access proposals, with the trail passing on an existing public right of way on flood banks adjacent to unit 1, whilst unit 2 is approximately 400m distant from the proposed trail. There is reasonable screening of the existing walked route by vegetation and scrub. The SSSI sits outside the proposals with the landward coastal access margin ending at the fence line or toe of the bank over this section.

The site is in close proximity to industry, which is a significant land use around this part of the proposed stretch. Unit 2 is inaccessible and cannot be reached by machinery.

Risk analysis

The notified features would only likely be affected by changes in water quality, salinity, or vegetation changes. Visual disturbance is not considered to be an issue.

Currently there are no known issues of disturbance from dredging or bait digging.

There are no access issues raised and no evidence to suggest this would change as a result of the England Coast Path proposals.

Consideration

The England Coast Path proposals do not affect the features that wholly depend on the saline lagoons.

Conclusion

The England Coast path proposals do not impact on either units 1 or 2 of North Killingholme Haven Pits SSSI, the notified features or the schedule 5 species.

For further information on the other European designated features (black-tailed godwit, saline coastal lagoons and the waterbird assemblage) please see the HRA.

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? No

The Lagoons SSSI

Is this site also part of a European site? Yes

This SSSI overlaps with the European sites of:-

- Humber Estuary Ramsar site
- Humber Estuary SPA
- Greater Wash SPA

Notified features of the SSSI that are also qualifying features of the European designated site are omitted from this assessment, as they are considered as part of the HRA (Habitats Regulations Assessment).

For a full list of overlapping features and designated sites please see Annex 1. These features are:-

SSSI Notified Feature	Site Designation	Overlapping European Designated Site		
Aggregations of breeding birds – little tern	SSSI/SPA	Humber Estuary SPA/Greater Wash SPA		
Saline coastal lagoons	SSSI/Ramsar site	Humber Estuary Ramsar site		
SD4-7 Sand dunes: fore-dune, mobile, semi fixed	SSSI/Ramsar site	Humber Estuary Ramsar site		

Current situation

This site is situated on the Holderness coast, 2km north of Spurn peninsula and south west of Easington village. It has a variety of coastal habitats including saltmarsh, shingle, sand dune, swamp and saline lagoons. These support nationally rare habitat, representing the only extant example found in north Humberside.

The site has one unit and this is currently recorded as unfavourable recovering condition (Natural England, 2010). All attributes are recorded as passes apart from extent (entire site and basin).

Risk analysis

Consideration

The saline lagoon and pools are largely inaccessible. The England Coast Path is proposed to follow adjacent to these, on the existing flood banks.

At Easington lagoon the proposed trail will be re-routed, as part of the HRA mitigation to protect over-wintering waterbirds and breeding little tern. New surfacing is required here, but this is not on the notified features. Just further north, there is an existing walked route and this surface is satisfactory. The proposed England Coast Path follows the flood banks heading north and away from the site. The rest of the designated habitat lies seaward of the trail. This includes saltmarsh, sand and saltpan and an area of dunes.

There is further discussion within the HRA on the features of the site and these have been considered within the HRA. This includes little tern, and dune habitats SD4-SD7.

Conclusion

The interest features will not be impacted by the England Coast Path due to their location and there will be no public access implemented on these areas. Therefore these interest features will not be affected by the England Coast Path proposals.

The lagoons and pools habitats on the western edge are considered unlikely to be impacted upon by the England Coast Path proposals, as the proposed trail will not go directly through these habitats. There is a very minimal chance of increased disturbance from walkers on passage birds but this is considered minor, and not likely to cause detrimental effect to birds listed within the notified features (ringed plover, spring and autumn passage waders, wintering coastal passerines such as shorelark and snow bunting, sea duck, goldeneye, scaup and smew). Please refer to the HRA for further information.

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? Yes

Access management infrastructure establishment works include: signposts, way markers, interpretation panels and path workings. For further information please see the HRA.

Where necessary, the land owner(s) will instigate the SSSI assent process by writing to us to confirm the timing of works and how operations to be undertaken in line with these conditions. Natural England will provide further advice as necessary.

Holderness Inshore MCZ

Is this site also part of a European site? Yes

This site overlaps with the following European sites:

- Greater Wash SPA
- Humber Estuary SPA/SAC
- Humber Estuary Ramsar site

It also overlaps with:

• Spurn National Nature Reserve and has component SSSI's: Humber Estuary SSSI, The Lagoons SSSI.

Note that features of the MCZ that are also qualifying features of the European site are fully considered within the associated HRA.

Current situation

The site covers 309km2 approximately. It is a mixture of intertidal with long open beaches of relatively mobile sediments, backed by soft readily eroding cliff. It also has subtidal areas extending out to three nautical miles and is composed of high and moderate energy circa-littoral rock, subtidal coarse and mixed sediment, subtidal mud and subtidal sand, with subtidal water depths reaching approximately 15 metres.

The site is also designated for subtidal elements of Spurn Head including a ridge of clay banks known locally as The Binks.

A full list of designated features for this site can be found in Annex 1.

Risk analysis

The features are largely intertidal, subtidal and circa-littoral in nature. These features are not considered sensitive to changes in access.

Conclusion

The coastal access proposals do not impact on the features of the MCZ.

Establishment works

None required.

Roesel's bush-cricket

Is this site or feature also part of a European site? No

Roesel's bush-cricket *(Metrioptera roselii)* is a medium sized cricket found usually in grassland, scrub and damp meadows, often by the coast. It is geographically located in south England but it is spreading north. It has been sighted on the Humber close to Spurn and records exist on the NBN atlas. Its occurrence status is listed as 'accepted' by NBN and it is noted as being 'observed since 1974' in the Easington locality (NBN atlas I.D. 516586219). This species is included within the Nature Conservation Assessment because it is locally significant and during the preliminary assessment phases of the England Coast Path proposals concerns were raised that it may be at risk of disturbance as a result of the access proposals.

It is not a notified species nor is it a protected species.

Current situation

Roesel's bush-cricket has been seen in the Easington area, near Spurn on the north bank (records confirmed on the NBN gateway (<u>www.records.nbnatlas.org</u>, accessed 17/01/2020). It is notable for its presence in this part of the country, as it is usually a southern species.

It prefers coastal meadows and damp locations, and the Humber appears to offer suitable habitat for the species. The network of flood banks and areas of longer grass appear to offer habitat niches for this species.

Currently, the species has been noted in long grass areas close to the flood banks where the trail is proposed. In these areas the trail is proposed to follow an existing walked route and/or PRoW.

Risk analysis

This bush cricket is usually wingless and does not fly. There is a very small element of the population that can fly however. The key periods are June to October, when it is mostly likely to be seen. It is usually within long grassland and scrub, so it is likely it would be found away from the existing walked route areas. It is thought it would only be sensitive to changes in land use, cutting changes and possibly trampling of its habitat.

The proposals include signage and way markers around key areas and along stretches of the path where it has been found in the locality. There are already existing walked routes around this locality, with access paths through Yorkshire Wildlife Trust land and existing public rights of way. The coast path proposals will not require significant changes to current cutting regimes on the flood banks. The current regime of 2-3 cuts per year is to be maintained, therefore not changing the conditions or putting in any new routes.

Conclusion

As the England Coast Path proposals will follow existing walked routes in the main and there are no significant changes to management proposed at these locations, it is not thought the presence of the England Coast Path will pose a threat to this species. Therefore it is concluded the England Coast Path proposals will not impact on the species Roesel's bush-cricket.

Protected Species

Legally protected species are an important consideration where works involve the removal or maintenance of existing features, or the construction of new features. Where these species are known, or are likely to be present, any works carried out should include appropriate mitigation in line with legislative guidelines.

The HRA discusses species in further detail, but the main considerations with regard to protected sites and species, and on-site working methods, are summarised in the bullet points and table below.

- European Protected Species are those species of plant and animal listed in Annex IV to EC Directive 92/43/EEC ('the Habitats Directive'). For a complete list of European Protected Species in England & Wales refer to Schedules 2, 4 and 5 of the Conservation of Habitats & Species Regulations 2017.
- The Wildlife and Countryside Act 1981, as amended, affords protection to wild birds, their eggs, young and nests (the latter whether complete or under construction). Those listed in Schedule 1 of the '81 Act receive additional protection against intentional or reckless disturbance while they are nest building or at a nest containing eggs or young. Dependant young are also protected from intentional or reckless disturbance. The timing of any works on habitats which may support birds (particularly breeding birds), and the methodologies employed should take these factors into account.
- Plants and animals included in Schedules 5 & 8 of the Wildlife and Countryside Act 1981 (as amended) are protected from being killed or injured, and protection may also apply to their place of shelter.
- Badgers and their setts are protected under the Protection of Badgers Act 1992, under which it is an offence to damage, destroy or obstruct a badger sett, or to disturb a badger when it is occupying a sett.
- All bat species, their breeding sites and resting places are fully protected in law and are European protected species. The presence of bats is often overlooked and it should be remembered that they inhabit crevices in tree trunks and branches as well as built structures (both above and below ground). Where there is uncertainty about their presence, surveys should be carried out beforehand by suitably qualified individuals.
- Activities which may affect any of the above species may require a licence from Natural England's licensing team, from which advice should be sought, as appropriate.

Timing of works	Works should be timed to prevent or minimise disturbance of wintering wildfowl and waders. <i>Severe Winter Weather Restrictions</i> will apply to works likely to disturb wintering wildfowl and waders when they are least able to cope with disturbance. Where works are likely to affect breeding birds the works should be timed to avoid the breeding season which is, for the majority of species, March to August inclusive. Timing may also need to be adjusted to take account of other species, such as those above.
Use of heavy machinery/ storage of plant and materials	Access routes and ground protection measures / other mitigation measures (as appropriate) should be agreed with the relevant Responsible Officer (RO) to ensure damage to the site or interest features/ legally protected species does not take place. Screening of plant and machinery to prevent visual and noise disturbance of wintering wildfowl and waders should be undertaken where necessary, under advice from the RO.
Presence of Protected Species	Where legally protected species are known or suspected to be present all works should include appropriate mitigation in line with legislative guidelines. Some species are afforded extra levels of protection and a licence may be required. Advice on the presence of legally protected species, and any special measures necessary, should be sought from the RO.

Conclusion

We, Natural England, are satisfied that our proposals to improve access to the English coast between Mablethorpe to Humber Bridge, and Humber Bridge to Easington are fully compatible with our duty to further the conservation and enhancement of the notified features of Saltfleetby and Theddlethorpe Dunes SSSI, Humber Estuary SSSI, North Killingholme Haven Pitts SSSI and The Lagoons SSSI consistent with the proper exercise of our functions¹.

In respect of any duties that may arise under section 125 of the Marine and Coastal Access Act 2009, Natural England has concluded for Holderness Inshore MCZ that the access proposal (including any mitigation measures specified) is the one that, consistently with the proper exercise of its functions under section 296 of the same Act, is least likely to hinder the achievement of the conservation objectives for the Marine Conservation Zone - and accordingly may proceed.

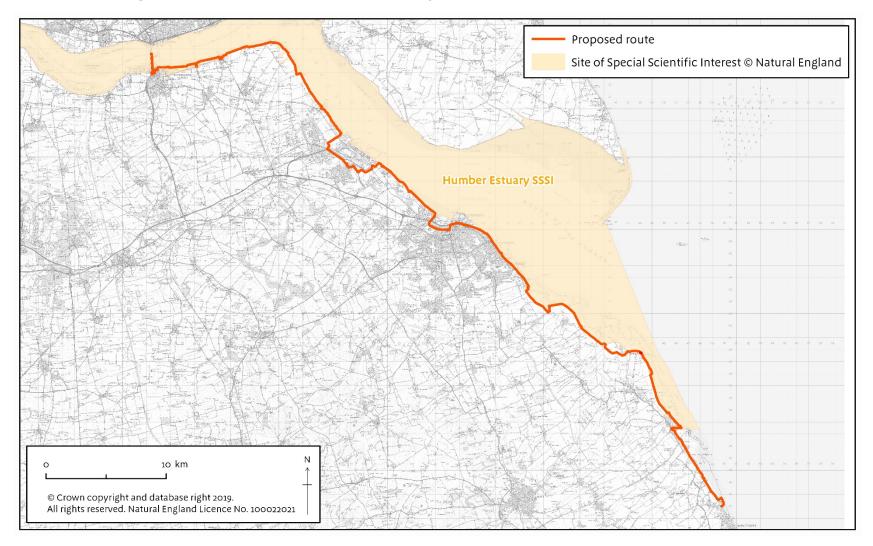
¹ Natural England's functions includes its balanced general purposes for access, nature conservation and landscape under the NERC Act 2006, any specific statutory duties it may have to deliver specific improvements to public access, and the access-related policies and priorities it periodically agrees with Defra.

²⁸ England Coast Path | Mablethorpe to Easington | Nature Conservation Assessment

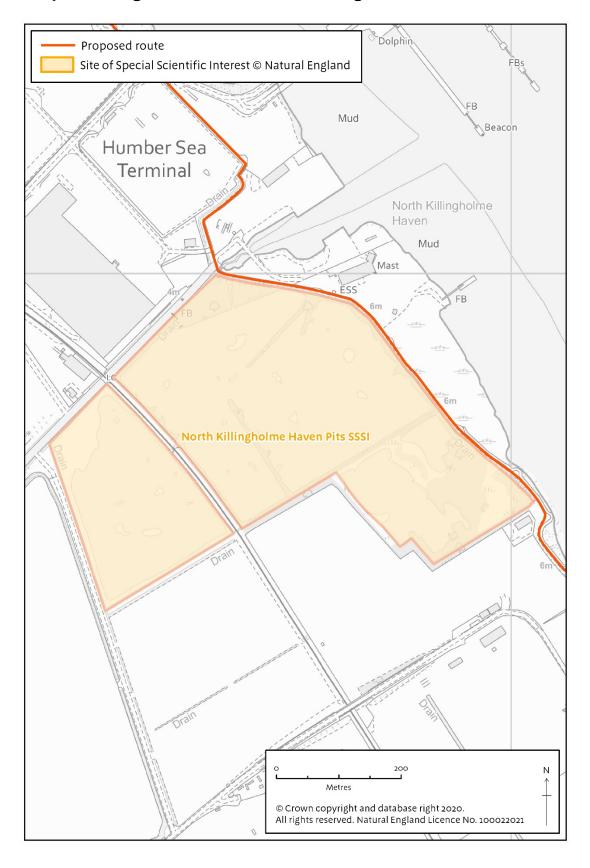
In respect of Tentacled lagoon worm and Roesel's bush-cricket we are satisfied that in developing the new access proposals the appropriate balance has been struck between Natural England's conservation and access objectives, duties and purposes.

See also, where relevant, the conclusions of the separate HRA relating to common features.

Date: 5/5/2021	Claire Argent – Yorkshire and North Lincolnshire Area Team
Date: 5/5/2021	James Marshall – East Midlands Area Team
Date: 5/5/2021	Bruce Cutts - England Coast Path Team



Map A. Designated Sites: Humber Estuary SSSI (south bank)



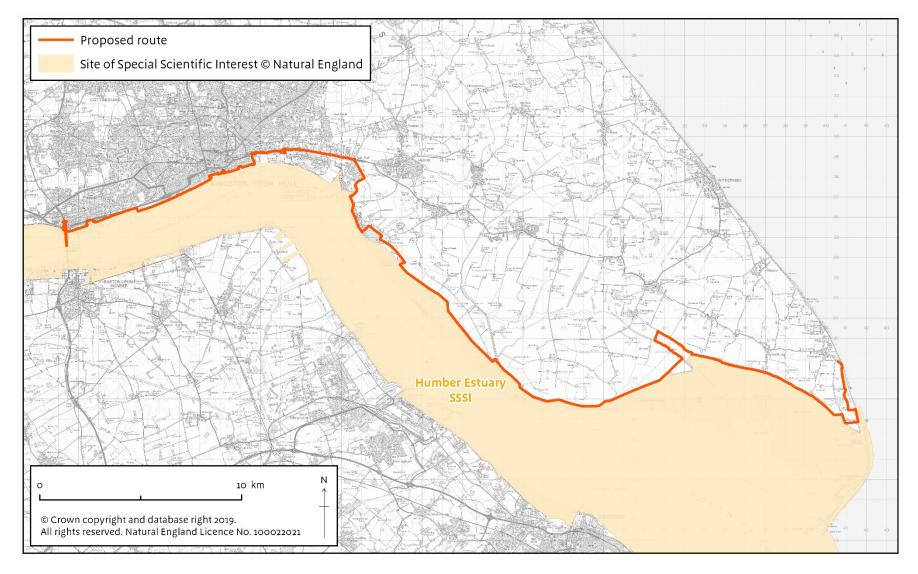
Map B. Designated sites: North Killingholme Haven Pitts SSSI

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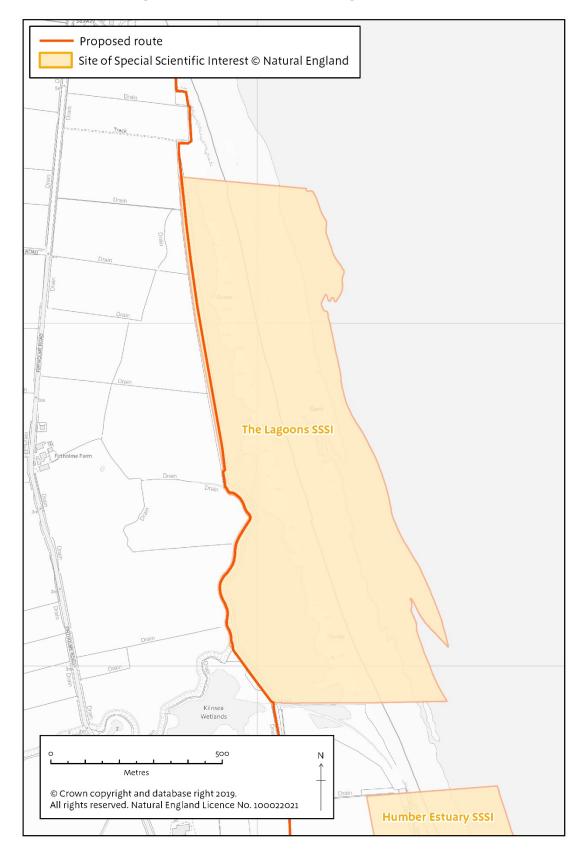
Map C. Designated sites: Saltfleetby and Theddlethorpe Dunes SSSI

Map D. Designated site: Humber Estuary SSSI (north bank)

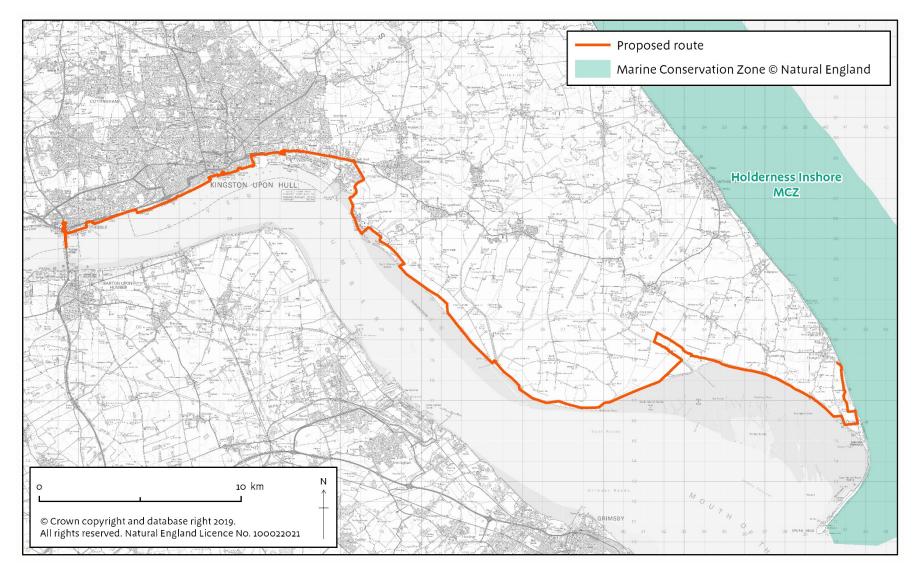


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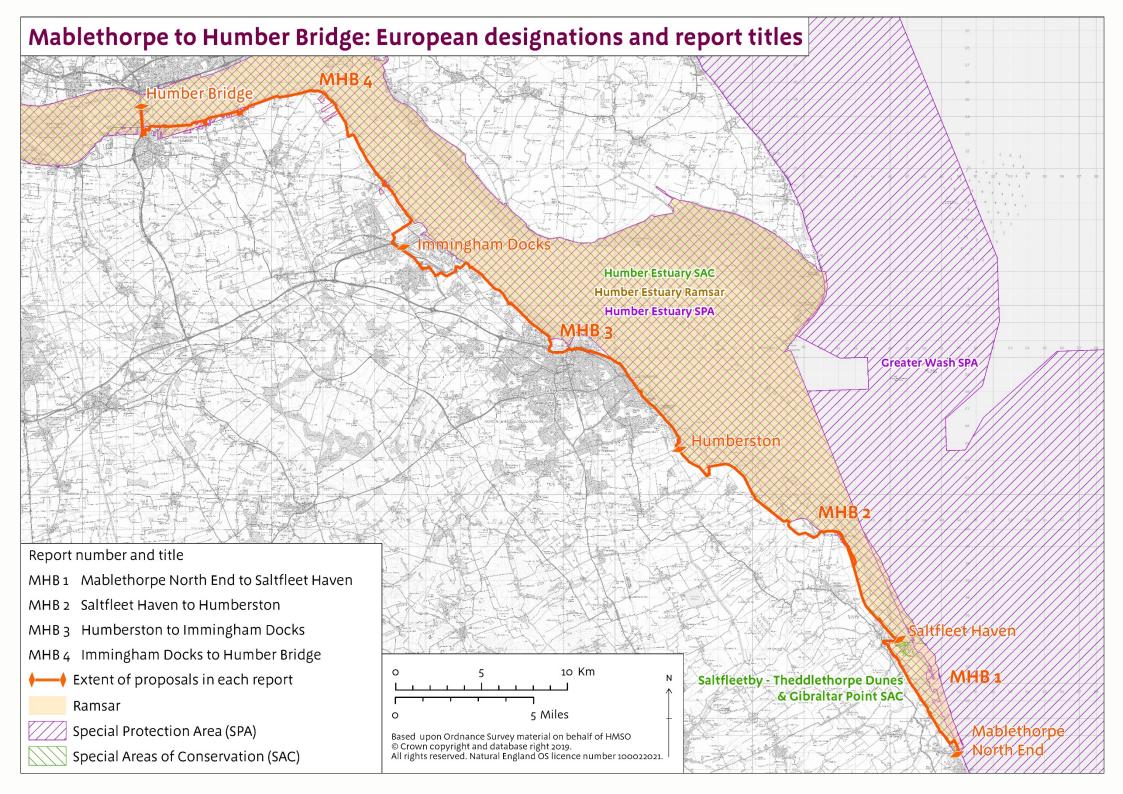
Map E. Designated sites: The Lagoons SSSI

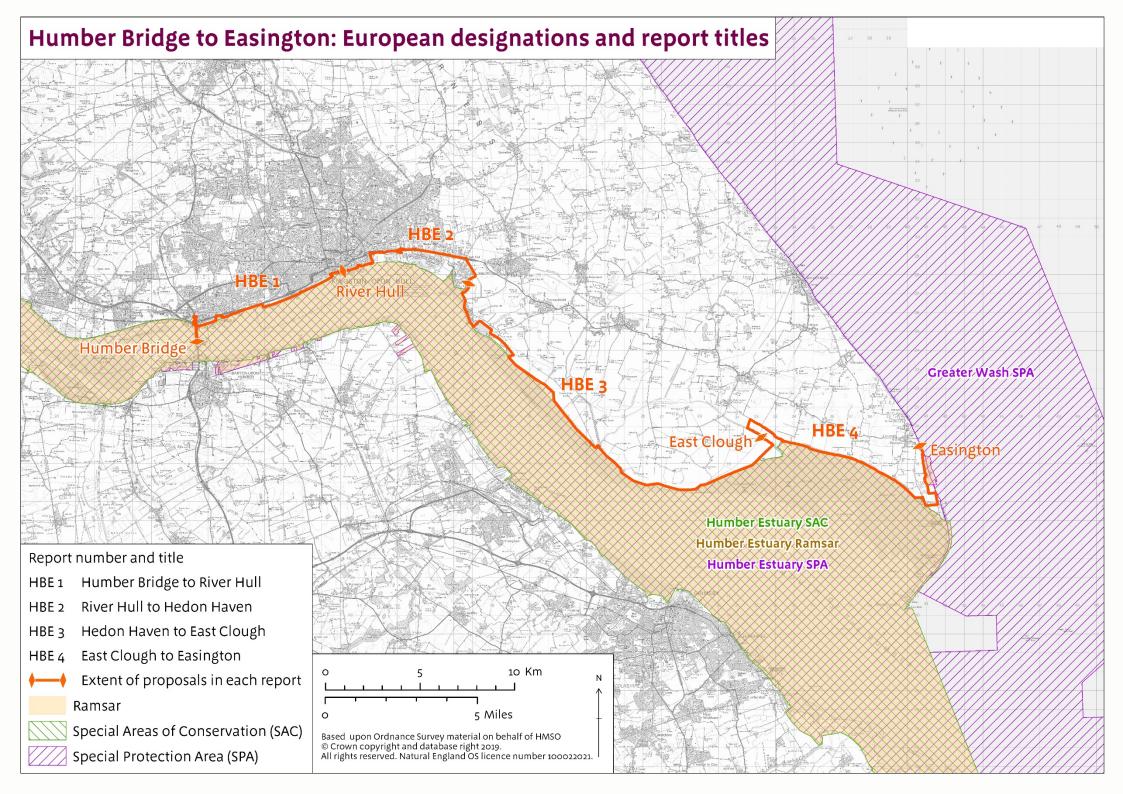


Map F. Other designations



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	< Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC	Humber Estuary RAMSAR site	Humber Estuary SSSI	Saltfleetby & Theddlethorpe Dunes SSSI	North Killingholme Haven Pitts SSSI	The Lagoons SSSI	Holderness In-shore MCZ
Common scoter nb	~									
Common tern b	✓									
Little gull nb	 ✓ 									
Little tern b	· ✓	✓					✓		\checkmark	
Red-throated	· •	-					-		-	
diver nb	-									
Sandwich tern b	~									
Avocet b		~								
Avocet nb		~				✓				
Bar-tailed godwit nb		√			✓	✓				
Bittern b		~								
Bittern nb		✓				\checkmark				
Black-tailed godwit nb		✓			✓	~		√		
Brent goose (dark-bellied) nb						~	~			
Curlew nb						✓				
Dunlin nb		~			~	~	✓			
Golden plover nb		~			~	~				
Goldeneye nb						✓				
Greenshank nb						✓				
Grey plover nb						✓				
Hen harrier nb		✓								
Knot nb		✓			✓	✓	✓			
Lapwing nb						✓				

Annex 1. Index to designated sites and features

	Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC	Humber Estuary RAMSAR site	Humber Estuary SSSI	Saltfleetby & Theddlethorpe Dunes SSSI	North Killingholme Haven Pitts SSSI	The Lagoons SSSI	Holderness In-shore MCZ
Oystercatcher nb						~				
Pochard nb						✓				
Marsh harrier b		~								
Redshank nb		✓			~	~	✓			
Ringed plover nb						✓				
Sanderling nb						✓	✓			
Scaup nb						~				
Ruff nb		~				✓				
Shelduck nb		~			✓	~				
Shelduck b					~					
Teal nb						~				
Turnstone nb						~				
Whimbrel nb						~				
Wigeon nb						~	√			
Water-bird assemblage nb		√			~		√	✓		
Assemblages of breeding birds – Lowland open waters and their margins						✓				
Assemblages of breeding birds - Scrub							~			

	Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC	Humber Estuary RAMSAR site	Humber Estuary SSSI	Saltfleetby & Theddlethorpe Dunes SSSI	North Killingholme Haven Pitts SSSI	The Lagoons SSSI	Holderness In-shore MCZ
H1110 sandbanks which are slightly covered by sea water all the time			~							
H11130 Estuaries			✓		~	~				
H1140 Mudflats and sandflats not covered by seawater at low tide			✓		~	~	✓			
H1150 Coastal lagoons			√		~	~		✓	✓	
Pioneer saltmarsh H1310 <i>Salicornia</i> and other annuals colonising mud and sand			~		~	~	V			
Coastal saltmarsh H1330 Atlantic salt meadows (Glauco- Puccinellietalia maritimae)			~		~	~	~			
H2110 Embryonic			✓	✓	~	~	✓		✓	
shifting dunes H2120 Shifting dunes along the shoreline with <i>Ammophila</i> <i>arenaria</i> (white dunes)			~	✓	✓	✓	√		×	

	Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	 Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC 	Humber Estuary RAMSAR site	Humber Estuary SSSI	 Saltfleetby & Theddlethorpe Dunes SSSI 	North Killingholme Haven Pitts SSSI	 The Lagoons SSSI 	Holderness In-shore MCZ
H2130 Fixed dunes with			✓	~	✓	✓	~		✓	
herbaceous vegetation (grey dunes)										
H2160 Dunes with <i>Hippophae</i> <i>rhamnoides</i>			~	~	~	1				
S1095 Sea			~		~	✓				
lamprey										
S1099 River			~		~	~				
lamprey S1364 Grey			✓		 ✓ 	✓				
seal			•		•	•				
H2190 Humid				✓	✓		✓			
dune slacks										
Saltmarsh SM4-28					~	~	~			
Natterjack toad					~		✓			
EC Quaternary						✓				
of East										
England										
IA – Coastal						~				
geomorphology Invertebrate						✓	✓			
assemblage							•			
MG11 Festuca					✓	✓				
rubra-Agrostis										
stolonifera-										
Potentilla										
<i>anserina</i> grassland										
Moderately					✓	✓	✓			
exposed sandy										
shores (with										
polychaetes										
and bivalves)										

	Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC	Humber Estuary RAMSAR site	Humber Estuary SSSI	 Saltfleetby & Theddlethorpe Dunes SSSI 	North Killingholme Haven Pitts SSSI	The Lagoons SSSI	Holderness In-shore MCZ
SD10 Carex arenaria dune					~	~	~			
community										
S26					✓	✓				
Phragmites australis-Urtica dioica tall herb- fen										
SD15 Salix					\checkmark	~				
repens- Calliergon cuspidatum dune slack										
community					\checkmark	✓	\checkmark			
SD17 Potentilla anserina – Carex nigra dune-slack community					v		v			
SD18 <i>Hippophae</i> <i>rhamnoides</i> dune scrub				✓		~				
SD2 Cakile maritima- Honkenya peploides strandline community			~		~	~	✓			
SD4 Elymus farctus ssp. Boreali- atlanticus foredune community			✓	✓	~	~	✓		✓	
SD5 <i>Leymus</i> arenarius mobile dune community			√	√	~	~	 ✓ 		~	
SD6 Ammophila arenaria mobile 42 England Co	act Dat	h Mah	✓	✓ Easingt		√ ature	✓ Consen	(ation A	V	4

	Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC	Humber Estuary RAMSAR site	Humber Estuary SSSI	Saltfleetby & Theddlethorpe Dunes SSSI	North Killingholme Haven Pitts SSSI	The Lagoons SSSI	Holderness In-shore MCZ
dune										
community SD7 <i>Ammophila</i> <i>arenaria-</i> <i>Festuca rubra</i> semi-fixed dune community			V	V	~	~	×		V	
SD8 Festuca rubra-Galium verum fixed dune grassland			~	 ✓ 	~	~	✓			
SD9 Ammophila arenaria- arrhenatherum elatius dune grassland					?	~	✓			
Sheltered muddy shores			~		~	~	✓			
SM2 <i>Ruppia maritima</i> saltmarsh community			✓		~	√				
Standing waters (complex with transitions from freshwater to brackish)						~				
Vascular plant assemblage						•	✓			
>20,000 non breeding water birds							~			
Schedule 5 species – annelid worm, tentacled lagoon worm								v		

	Greater Wash SPA	Humber Estuary SPA	Humber Estuary SAC	Saltfleetby -Theddlethorpe Dunes & Gibraltar Point SAC	Humber Estuary RAMSAR site	Humber Estuary SSSI	Saltfleetby & Theddlethorpe Dunes SSSI	North Killingholme Haven Pitts SSSI	The Lagoons SSSI	 Holderness In-shore MCZ
Intertidal sand and muddy										\checkmark
sand										
Circa-littoral rock										✓
Subtidal sediment										✓
Subtidal mud and sand										~
Spurn Head (sub tidal) geological										✓

b = breeding

nb = non breeding

References

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