EAST LINDSEY LOCAL PLAN

21st AUGUST 2012

PART 2 OF STAGE 1 SCREENING ASSESSMENT AND PRELIMINARY POLICY APPRAISAL

1 SITES AND FEATURES

This section provides information on the international sites relevant to the East Lindsey District, highlighting the interest features that form the basis for the designations. Information has also been included on each site's sensitivities and the relevant conservation objectives. The location of the sites, local settlements, rivers and main roads are shown on **Figure 3.1**. Building on the 2008 report, nine designations covering five areas have been identified at this stage as requiring consideration. Additionally, and although not formally required under the Habitats Regulations, we have included discussion and consideration of the proposed Lincs Belt Marine Conservation Zone.

1.1 Humber Estuary SPA, SAC and Ramsar

Located to the north of the District, the Humber is the second-largest coastal plain estuary in the UK, and the largest coastal plain estuary on the east coast of Britain. It is a muddy, macro-tidal estuary, fed by the Rivers Ouse, Trent and Hull, Ancholme and Graveney. Suspended sediment concentrations are high, and are derived from a variety of sources, including marine sediments and eroding boulder clay along the Holderness coast.

Habitats within the Humber Estuary include Atlantic salt meadows and a range of sand dune types in the outer estuary, together with subtidal sandbanks, extensive intertidal mudflats, glasswort beds and coastal lagoons. As salinity declines upstream, reedbeds and brackish saltmarsh communities fringe the estuary. Significant fish species include river lamprey *Lampetra fluviatilis* and sea lamprey *Petromyzon marinus* which breed in the River Derwent, a tributary of the River Ouse.

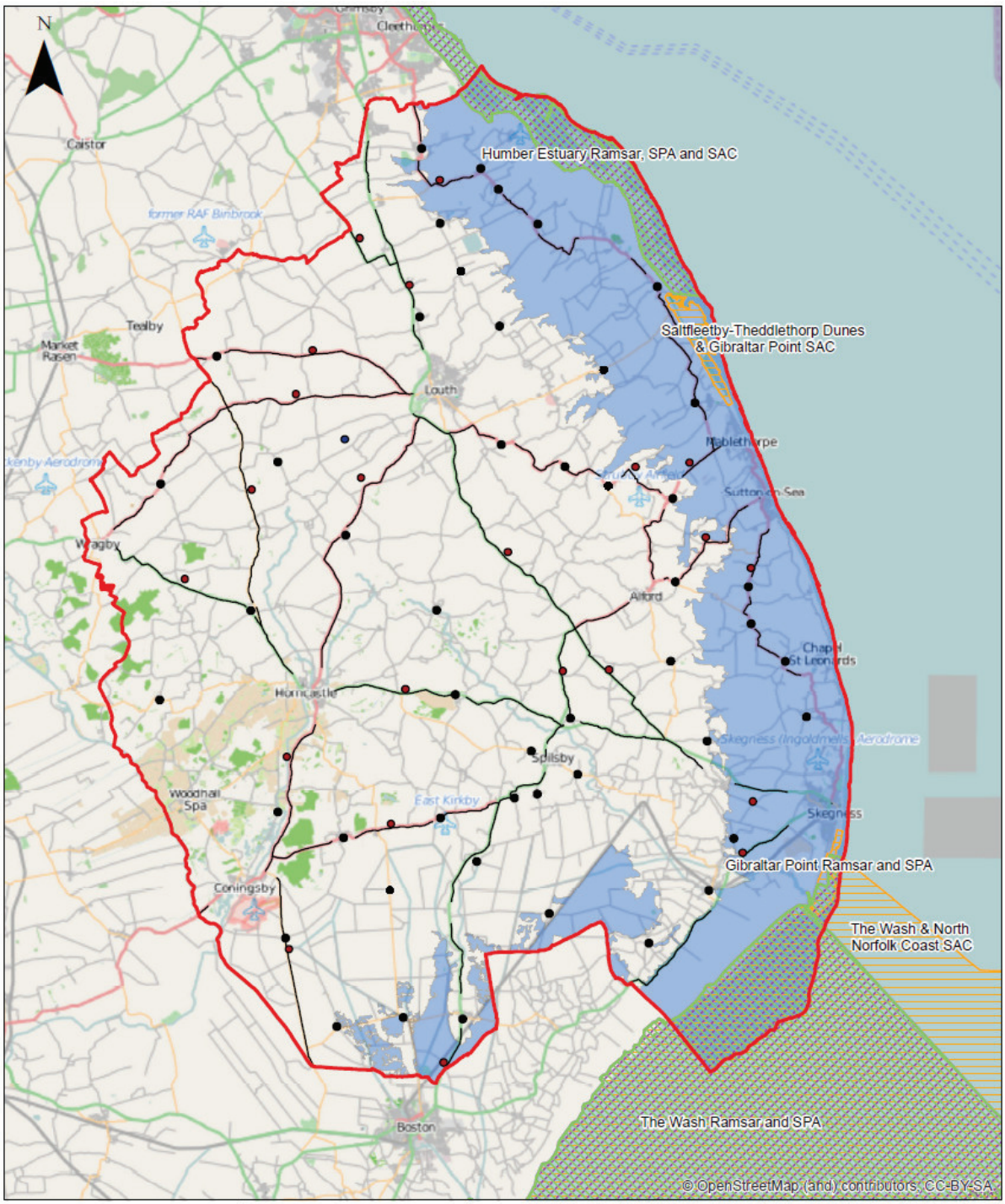
The Humber Estuary Ramsar site supports a breeding colony of grey seals *Halichoerus grypus* at Donna Nook. It is the second largest grey seal colony in England and the southern-most regular breeding site on the east coast. The dune slacks at Saltfleetby-Theddlethorpe on the southern extremity of the Ramsar site are the most north-easterly breeding site in Great Britain of the natterjack toad *Bufo calamita*.

1.1.1 Site sensitivities

The Humber Estuary is an extremely dynamic estuarine system with a high sediment budget, which results in changing morphology, allowing the movement of the intertidal and subtidal habitats in response to physical and biological variables. The habitats within the estuary are interdependent and inextricably linked to the structure and functioning of one another and of the system as a whole.

The Humber Estuary is subject to the impacts of human activities (past and present) as well as ongoing processes such as sea level rise and climate change. Key issues include coastal squeeze, impacts on the sediment budget, and changes to geomorphological structure and function of the estuary (due to sea level rise, flood defence works, dredging, and the construction, operation and maintenance of ports, pipelines and other

infrastructure), changes in water quality and flows, pressure from additional built development, and damage and disturbance arising from access, recreation and other activities.



Legend

- East Lindsey District Boundary
- Coastal Flood Zone
- Ramsar Sites
- Special Protection Area
- Special Area of Conservation
- Strategic Roads Network
- Settlements

		Project: East Lindsey District Council Core Strategy	Title: International Sites within or adjacent to East Lindsey District
		Source: © OpenStreetMap (and) contributors, CC-BY-SA "© Crown copyright. All rights reserved. Natural England, 100046223 [2012]."	Royal HaskoningDHV Enhancing Society Together
Figure No: 3.1	Version Control: 2.2	Client: East Lindsey District Council	
Drawn: MCG	File Location:	Date: 21/08/2012	Scale: 0 5.5 11 Kilometres

1.1.2 Conservation objectives

In order to maintain the international sites within the Humber Estuary in favourable condition, there should be no reduction in the extent of the following habitats:

- Estuary;
- Littoral sediment;
- Saline lagoons;
- Sand dunes; and
- Standing open water and canals.

There should also be no change in the composition of inshore sub-littoral sediment and biotope distribution should also be maintained for this habitat.

The following table provides the standards needed to maintain favourable condition for the faunal species for which the Humber Estuary is designated.

Table 3.1 SAC features and conservation objectives

Features	What needs protecting	Level of protection
Fish	River lamprey, sea lamprey	• Lampreys should be present at not less than 2/3 of sites surveyed. • No reduction in the distribution of ammocoetes within the catchment. • No reduction in extent of spawning activity year on year. • No artificial barriers significantly impairing adults from reaching existing and historical spawning grounds. • No stocking of other fish species at excessively high densities.
Mammals	Grey seal	• A stable or increasing number of breeding female grey seals in the SAC
Birds	Assemblage of waterfowl species	• No decrease in extent of listed habitats from established baselines, subject to natural change. • Maintain the ability of the estuary to support its bird populations. • No significant reduction in bird numbers either on the site, or from one part of the site to another attributable to anthropogenic factors
	Breeding bird assemblage of lowland open waters and their margin	
	Aggregations of non-breeding birds: Wintering and passage waterfowl species	No decrease in extent of listed habitats from established baselines, subject to natural change. as defined in the conservation objectives for these habitats. Maintain the ability of the estuary to support its bird populations. No significant reduction in bird numbers either on the site, or from one part of the site to another attributable to anthropogenic factors
	Wintering and passage waterbirds	No decrease in extent of listed habitats from established baselines, subject to natural change. as defined in the conservation objectives for these habitats. Maintain the ability of the estuary to support its bird populations. No significant reduction in bird numbers either on the site, or from one part of the site to another attributable to anthropogenic factors.
Amphibian	Natterjack toad	• For at least 1 year in every 4 years, each breeding pond to have baseline toadlet production +/- 1 order of magnitude. • >90% of breeding ponds to have aquatic macrophyte covering/shading less than 25% of surface, and no scrub

Features	What needs protecting	Level of protection
		solidly shading southern margin of pond. • No net loss in extent or number of breeding ponds. • No loss of area, or fragmentation, compared to designation status. • Minimum summer water depth 5cm for at least 75% of breeding ponds on each year of assessment. Breeding ponds exposed to seawater inundation.
Invertebrates	Invertebrates associated with estuarine and associated freshwater and terrestrial habitats	• No more than 25% reduction from original baseline in core habitat area or abundance of foodplant.

1.2 Saltfleetby–Theddlethorpe Dunes and Gibraltar Point SAC

The dune system on the composite Saltfleetby–Theddlethorpe Dunes and Gibraltar Point site contains good examples of shifting dunes. At this site the *Ammophila*-dominated dunes are associated with lyme-grass *Leymus arenarius* and sand sedge *Carex arenaria*.

Within this dune complex there are extensive areas of fixed dune vegetation within largely intact geomorphologically active systems. The lime-rich dunes support a rich and diverse flora, dominated by red fescue *Festuca rubra* and with unusual species including pyramidal orchid *Anacamptis pyramidalis*, bee orchid *Orchis apifera*, sea-holly *Eryngium maritimum* and sea campion *Silene maritima*. The fixed dunes are part of a successional transition.

This site supports a good example of dunes with *Hippophae rhamnoides* in the main part of its natural range in the UK. This habitat develops on dune areas and is present in a range of successional stages from early colonisation to mature scrub associated with elder *Sambucus nigra*, hawthorn *Crataegus monogyna* and ivy *Hedera helix*.

The humid dune slacks are part of a successional transition and some have developed from saltmarsh to freshwater habitats after becoming isolated from tidal inundation by sand deposition. There is a range of different communities present, many of which are species-rich.

1.2.1 Site sensitivities

The site is subject to a high number of visitors which require close management. Seaborne pollution, particularly accidental discharge from shipping or from inshore oil and gas drilling operations could pose problems for the site but contingency plans exist for dealing with oil spills.

Many of the vegetation types supported by sand dunes are fragile and vulnerable to erosion from heavy trampling. Where recreational pressures are significant enough to result in the loss of vegetation cover and prevent recovery, it may be necessary to take steps to manage access by putting boardwalks in or controlling activities in vulnerable areas such as the fore dunes. Such measures are already undertaken in places.

Where recreation pressure is not severe, the impact of trampling can help to retain diversity on some sites – sandy tracks break up the vegetation sward and provide areas of bare sand thus increasing the diversity of habitats available.

1.2.2 Conservation objectives

In order to maintain Saltfleetby–Theddlethorpe Dunes and Gibraltar Point SAC in favourable condition, there should be no reduction in the extent of the following habitats:

- Sub-littoral sands and gravels;
- Littoral sediment;
- Coastal saltmarsh; and
- Coastal sand dune.

1.3 Gibraltar Point SPA and Ramsar

Gibraltar Point consists of an actively accreting sand-dune system, saltmarsh and extensive intertidal flats. All stages of dune development are represented with the older dunes extensively colonised by scrub. There are also small areas of freshwater marsh and open water. The site accommodates large numbers of overwintering birds and significant colonies of breeding little tern *Sterna albifrons*. The terns feed outside the SPA in nearby waters. The site is also important for waders during the spring and autumn passage period.

The dune and saltmarsh habitats present on the site are representative of all the stages of colonisation and stabilisation. There is a fine example of freshwater marsh containing sedges *Carex* spp., rushes *Juncus* spp., and ferns, including adder's-tongue fern *Ophioglossum vulgatum*. Also most northerly example of nationally rare saltmarsh/dune communities containing sea heath *Frankenia laevis*, rock sea lavender *Limonium binervosum* and shrubby seablite *Suaeda vera*. It also supports an assemblage of wetland invertebrate species of which eight species are listed as rare in the British Red Data Book and a further four species listed as vulnerable.

1.3.1 Site sensitivities

Many of the vegetation types supported by sand dunes are fragile and vulnerable to erosion from heavy trampling. Where recreational pressures are significant enough to result in the loss of vegetation cover and prevent recovery, it may be necessary to take steps to manage access or controlling activities in vulnerable areas such as the fore dunes. It may also be necessary to manage access to limit the impacts of disturbance on breeding birds. Such measures are already undertaken in places.

There are a number of factors that are contributing to saltmarsh change including coastal erosion as a result of coastal flood-defence works, rising sea-levels, variations in sediment deposition, and land claim for development. The birds that use mud and sandflats for feeding and roosting are vulnerable to disturbance from human activities, for example, bait digging, dog walking and wildfowling. These activities can lead to reduced time spent feeding, or individuals being restricted to areas with a poor food supply.

The location and extent of mud or sandflats is dependent on the extent to which the estuary or coast where they occur is constrained from responding to sea level rise and changing sediment regimes.

1.3.2 Conservation objectives

In order to maintain Gibraltar Point SPA and Ramsar sites in favourable condition, there should be no reduction in the extent of the following habitats:

- Littoral sediment;

- Coastal saltmarsh; and
- Coastal sand dune.

The following table outlines the favourable condition levels for the bird species for these international sites.

Table 3.2 Favourable condition levels for bird species

Features	Level to maintain favourable condition
Aggregations of non-breeding birds	• Maintain the area of habitats that are used by the non-breeding bird aggregation within acceptable limits: • Extent of all habitats used by the feature should be maintained, subject to natural change - loss of 5% or more of any relevant habitat type is unacceptable
Bar-tailed godwit	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 2,580 • Baseline (autumn passage): 7,400
Ringed plover	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline 26 birds
Grey plover	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 3,300 birds • Baseline (Aug-May): 4,180
Knot	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 26,500 • Baseline (autumn passage): 32,600
Oystercatcher	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline 6,560 birds
Sanderling	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 382 birds • Baseline (passage): 750 Acceptable limits is defined as more than 1,875 birds (5 year mean)
Dark bellied Brent goose	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter period): 3,100 birds
Dunlin	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter period): 861 birds • Baseline (passage period): 3,110 birds
Wigeon	Subject to natural change, maintain population within acceptable limits (in this context population is that of an individual species): • Baseline (winter): 1,273 birds An acceptable limit for this species is defined as more than 636 birds.
Little tern	• A minimum of 16 nesting pairs.

1.4 The Wash SPA and Ramsar

The Wash is the largest estuarine system in the UK and is fed by the rivers Witham, Welland, Nene and Great Ouse that drain much of the east Midlands of England. The Wash comprises very extensive saltmarshes, major intertidal banks of sand and mud, shallow waters and deep channels. The intertidal flats have a rich invertebrate fauna and colonising beds of Glasswort *Salicornia* spp. which are important food sources for the large numbers of waterbirds dependent on the site. The sheltered nature of The Wash creates suitable breeding conditions for shellfish which are important food sources for some waterbirds. The Wash is of outstanding importance for a large number of geese, ducks and waders, both in spring and autumn migration periods, as well as through the winter. The SPA is especially notable for supporting a very large proportion (over half) of the total population of Canada/Greenland breeding knot *Calidris canutus islandica*. In summer, the Wash is an important breeding area for tern species and as a feeding area for marsh harrier *Circus aeruginosus* that breed just outside the SPA.

1.4.1 Site sensitivities

The biological richness of The Wash is largely dependent on the physical processes that dominate the natural systems and consequently the ecological vulnerability is closely linked to the physical environment. The intertidal zone is vulnerable to coastal squeeze as a result of land-claim, coastal defence works, sea-level rise, and storm surges. Intertidal habitats are potentially affected by changes in sediment budget caused by dredging and coastal protection, construction of river training walls and flood defence works.

Activities affecting sediment budget and anthropogenic causes of coastal squeeze will be addressed through the management scheme being developed jointly for the SAC/SPA on the site.

The estuary is fed by four large rivers which drain a substantial area of Eastern England. The volume and quality of water entering The Wash is dependent on the use made of these rivers for water abstraction and agricultural and domestic effluents – such consents and licenses are managed under the provisions of the Habitats Regulations.

1.4.2 Conservation objectives

In order to maintain the international sites within The Wash in favourable condition, there should be no reduction in the extent of the following habitats:

- Coastal saltmarsh;
- Littoral sediment;
- *Sabellaria spinulosa* reefs;
- Saline lagoons;
- Coastal vegetated shingle; and
- Sub-littoral sands and gravels.

The following table outlines the favourable condition levels for the bird species for these international sites.

Table 3.3 Favourable condition standards for bird species

Features	Level of protection
Aggregations of non-breeding bird species	The site should be judged unfavourable if population declines of

Aggregations of non-breeding Annex 1 bird species (Bewick swan, whooper swan, bar-tailed godwit)	50% or more from the baseline level are recorded.
Aggregations of non-breeding birds – >20,000 waterfowl	The site should be judged unfavourable if the baseline population of 203,829 waterfowl declines by 50% or more.
Breeding redshank	The site should be judged unfavourable if the baseline mean peak breeding density of Redshank within the mature saltmarsh declines by 25% or more.
Common tern	Based on the known natural fluctuations of the Snettisham population within the site, maintain the population above 59 pairs i.e. the minimum recorded at this site. *Note: unlikely to be affected by the ELDC Local Plan.*
Mediterranean gull	Maintain breeding population

1.5 The Wash and North Norfolk Coast SAC

This site represents one of the largest expanses of sublittoral sandbanks in the UK. The subtidal sandbanks vary in composition and include coarse sand through to mixed sediment at the mouth of the embayment. Sublittoral communities present include large dense beds of brittlestars *Ophiothrix fragilis*. The subtidal sandbanks provide important nursery grounds for many commercial fish species.

The Wash is the second largest area of intertidal flats in the UK. The sandflats in the embayment include extensive fine sands and drying coarse sand banks, and this, coupled with variety in degree of exposure, means that there is a high diversity relative to other east coast sites. Sandy intertidal flats predominate, with some soft mudflats in the areas sheltered by barrier beaches and islands along the north Norfolk coast.

The Wash is the largest embayment in the UK and is connected via sediment transfer systems to the north Norfolk coast. The embayment supports a variety of mobile species, including fish species and common seal *Phoca vitulina*.

In the tide-swept approaches to the Wash, the polychaete worm *Sabellaria spinulosa* forms areas of biogenic reef. The site and its surrounding waters is the only known location of well-developed stable *Sabellaria* reef in the UK.

The east coast of England is one of the few areas in the UK where saltmarshes are generally accreting. The proportion of the total saltmarsh vegetation represented by *Salicornia* and other annuals is high because of the extensive enclosure of marsh in this site. The vegetation is also unusual in that it forms a pioneer community with common cord-grass *Spartina anglica*.

This site is designated for the extensive ungrazed saltmarshes of the north Norfolk Coast and for the traditionally grazed saltmarshes around the Wash. The Wash saltmarshes represent the largest single area of this habitat type in the UK. Saltmarsh swards dominated by sea-lavenders *Limonium* spp. are particularly well-represented.

The Wash and North Norfolk Coast comprises the only area in the UK where all the more typically Mediterranean species that characterise Mediterranean and thermo-Atlantic halophilous scrubs occur together. The vegetation is dominated by a cover of shrubby sea-blite and sea-purslane *Atriplex portulacoides*, with a patchy cover of herbaceous plants and bryophytes.

1.5.1 Site sensitivities

The site is vulnerable to natural sea level rise, storm surges and changes in erosion patterns which are increasingly likely to affect the freshwater grazing marsh and reedbed habitats. Increasing interest in abstraction of groundwater for irrigation of arable land may affect freshwater spring flows onto grazing marshes and would be addressed through application of provisions under the Habitat Regulations. The site is visited by a large number of tourists especially in the summer.

By their very nature embryonic shifting dunes are restricted in the area they can occupy. They are made even scarcer by the fact that only a relatively small number of dunes are actively prograding, the condition under which this habitat type develops best. Embryonic shifting dunes are also particularly vulnerable to trampling by beach users and to mechanical cleaning of beaches, and this may well be a significant factor in limiting their extent.

1.5.2 Conservation objectives

In order to maintain the international sites within The Wash in favourable condition, there should be no reduction in the extent of the following habitats:

- Coastal saltmarsh;
- Littoral sediment;
- *Sabellaria spinulosa* reefs;
- Saline lagoons; and
- Sub-littoral sands and gravels.

In order to maintain the condition of the site, the population of common seals must display a stable or increasing usage of the site.

1.6 Lincs Belt Marine Conservation Zone

The Marine and Coastal Access Act 2009 allows for the creation of a new type of Marine Protected Area called a Marine Conservation Zone (MCZ). MCZs will protect a range of nationally important marine wildlife, habitats, geology and geomorphology and can be designated anywhere in English and Welsh inshore and UK offshore waters. Four regional projects have been set up to help assess the potential MCZ sites.

The proposed Lincs Belt MCZ (not shown on **Figure 3.1**) is located on the north Lincolnshire coast, extending from approximately 2km north of North Coates at the mouth of the Humber, to its most southern point approximately 3km south of Sandilands (between Mablethorpe and Skegness). The eastern boundary aligns with the 3 nautical mile limit and the north-western boundary runs parallel to the Humber Estuary international site. The site is characterised by open coast sediments in the nearshore and shallow coastal waters further out. The site has been recommended as representative of circalittoral sands and circalittoral coarse and mixed sediments and for peat and clay exposures.