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Habitats Regulation Assessment of England Coast Path proposals between Aldeburgh and Hopton-on-Sea on sites of European importance for nature conservation

29th January 2020

Assessment of England Coast Path proposals between Aldeburgh and Hopton-on-Sea

on Sandlings Special Protected Area (SPA), Outer Thames Estuary SPA, Southern North Sea Special Area of Conservation (SAC), Benacre to Easton Bavents SPA, Minsmere-Walberswick SPA and Ramsar site, Minsmere to Walberswick Heaths & Marshes SAC and the Benacre to Easton Bavents Lagoons SAC

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Assessment of Coastal Access proposals under regulation 63 of the Habitats Regulations 2017 (as amended) ('Habitats Regulations Assessment')

Summary

I) Introduction

This is a record of the Habitats Regulations Assessment ('HRA') undertaken by Natural England (in its role of competent authority) in accordance with the assessment and review provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations').

Natural England has a statutory duty under the Marine and Coastal Access Act 2009 to improve access to the English coast. This assessment considers the potential impacts of our detailed proposals for coastal access from Aldeburgh to Hopton-on-Sea on the following sites of international importance for wildlife: Sandlings Special Protection area (SPA), Outer Thames Estuary SPA, Southern North Sea Special Area of Conservation (SAC), Benacre to Easton Bavents SPA, Minsmere-Walberswick SPA and Ramsar site, Minsmere to Walberswick Heaths & Marshes SAC, and the Benacre to Easton Bavents Lagoons SAC.

This assessment should be read alongside Natural England's related Coastal Access Reports which between them fully describe and explain its access proposals for the stretch as a whole. The Overview explains common principles and background and the reports explain how we propose to implement coastal access along each of the constituent lengths within the stretch.

https://www.gov.uk/government/publications/england-coast-path-from-aldeburgh-to-hopton-on-sea

II) Background

The Aldeburgh to Hopton-on-Sea stretch of the England Coast Path extends from Fort Green car park in Aldeburgh to Beach Road in Hopton-on-Sea, and covers approximately 60km in total.

The main wildlife interests for this stretch of coast are summarised in Table 1 (see section B1 for a full list of qualifying features).

Table 1. Summary of the main wildlife interest

Interest	Description
Breeding wetland birds	A variety of wetland birds use the mosaic of wetland habitats such as reed beds, grazing marsh and saltmarsh as nesting areas. This includes areas within and outside of managed nature reserves.
Breeding terns and avocet	Sparsely vegetated ground and shingle on the frontage of Dingle Marshes, Suffolk Coast National Nature Reserve (NNR) (reedland marshes) and Benacre, Covehithe and Easton Broads provide nesting habitat for large colonies of little and common tern and avocet.
Non-breeding wetland birds	A variety of wetland birds, some of which remain on site year round, use the mosaic of wetland habitats to feed. Wintering and passage birds also use the wetlands as key feeding sites along their migration.
Mosaic of marine, freshwater and marshland habitats with associated plant assemblage	Large areas at the Suffolk Coast National Nature Reserve (NNR) (which includes the marshland at Dingle and Corporation Marshes) and at the Benacre NNR provide a mosaic of wetland habitats and associated plant species. These areas also provide important nesting and feeding grounds for birds and habitat for invertebrates.
Coastal lagoons	Benacre, Covehithe and Easton Broads and The Denes are continuously changing coastal lagoons as a result of coastal breaches and climatic factors. The lagoons and associated habitat are key nesting and feeding grounds for bittern, little tern and marsh harrier.
Strandline and shingle communities	Vegetated communities occupying shingle and strandlines are found along the frontage of Minsmere, Suffolk Coast NNR and Dingle Marshes, as well as at Benacre, Covehithe, Easton Broad. These areas also provide habitat for invertebrates and important nesting grounds for colonies of terns and avocet.
Invertebrate assemblage	A mixed habitat assemblage of invertebrates covering sand and shingle, wetland, woodland, farmland and water species.
Heathland and ground nesting birds	Lowland heath, dominated by heather, provides a valuable habitat for two nationally declining bird species, the nightjar and woodlark.
Harbour porpoise	The Southern North Sea SAC includes key winter and summer habitat for harbour porpoise. The majority of the site lies offshore, though it does extend into coastal areas of Norfolk and Suffolk within the 12 nautical mile boundary.

III) Our approach

Natural England's approach to ensuring the protection of sensitive nature conservation features under the Coastal Access Programme is set out in section 4.9 Coastal Access: Natural England's Approved Scheme 2013 [Ref 1].

Our final published proposal for a stretch of England Coast Path is preceded by detailed local consideration of options for route alignment, the extent of the coastal margin and any requirement for restrictions, exclusions or seasonal alternative routes. The proposals are thoroughly considered before being finalised and initial ideas may be modified or rejected during the iterative design process, drawing on the range of relevant expertise available within Natural England.

Evidence is also gathered as appropriate from a range of other sources which can include information and data held locally by external partners or from the experience of local land owners, environmental consultants and occupiers. The approach includes looking at any current visitor management practices, either informal or formal. It also involves discussing our emerging conclusions as appropriate with key local interests such as land owners or occupiers, conservation organisations or the local access authority. In these ways, any nature conservation concerns are discussed early and constructive solutions identified as necessary.

The conclusions of our assessment are certified by both the member of staff responsible for developing the access proposal and the person responsible for considering any environmental impacts. This ensures appropriate separation of duties within Natural England.

IV) Aim and objectives for the design of our proposals

The new national arrangements for coastal access will establish a continuous well-maintained walking route around the coast and clarify where people can access the foreshore and other parts of the coastal margin. These changes will influence how people use the coast for recreation and our aim in designing our detailed proposals has been to secure and enhance opportunities for people to enjoy their visit whilst ensuring appropriate protection for affected European sites.

A key consideration in developing coastal access proposals for Aldeburgh to Hopton-on-Sea has been the possible impact of disturbance on breeding birds as a result of recreational activities, and particularly visitors with dogs.

Objectives for design of our detailed local proposals have been to:

- Avoid exacerbating issues at sensitive locations by making use of established coastal paths
- Where there is no suitable established and regularly used coastal route, develop proposals that take account of risks to sensitive nature conservation features and incorporate mitigation as necessary in our proposals
- Clarify when, where and how people may access the foreshore and other parts of the coastal margin on foot for recreational purposes

- Work with local partners to design detailed proposals that take account of and complement efforts to manage access in sensitive locations
- Where practical, incorporate opportunities to raise awareness of the importance of this stretch of coast for wildlife and how people can help efforts to protect it.

V) Conclusion

We have considered whether our detailed proposals for coastal access between Aldeburgh and Hopton-on-Sea might have an impact on sites of European conservation interest. In Part C of this assessment we identify some possible risks to the relevant qualifying features and conclude that proposals for coastal access, without incorporated mitigation, may have a significant effect on these sites. In Part D we consider these risks in more detail, taking account of avoidance and mitigation measures incorporated into our access proposal, and conclude that there will not be an adverse effect on the integrity of any site. These measures are summarised in Table 2 below.

Table 2. Summary of risks and consequent mitigation built in to our proposals

Risk to conservation objectives	Relevant design features of the access proposal
Disturbance to the wetland breeding birds	Route Alignment • Much the route is on existing access, such as along the Suffolk Coast Path landwards of the Dingle Marshes and Suffolk Coast NNR. • The route will create no new access into the fenced area of the Minsmere RSPB reserve or the Suffolk Coast NNR. Access Management • No new coastal access rights will be created over areas of mudflat or saltmarsh that are unsuitable for public access, ie the Dingle and Corporation Marshes, where we propose and s25A year-round access exclusion.
Disturbance to individual breeding birds (terns, avocet, bittern and marsh harrier. Woodlark and nightjar on heathland areas.)	The above points will also minimise potential impacts on individual breeding bird species Route Alignment • New access is proposed along the shoreline of the Easton, Covehithe and Benacre Broads however no access is proposed across these wetland areas. • Optional alternative routes (OARs) are proposed landwards of Easton, Covehithe and Benacre Broads for use when the main route is unsuitable, thus preventing attempted access inland from the main route. • The alignment at Dunwich Heath is along a well-established path maintained by the National Trust. • The alignment across The Denes follows a well-established walking route on Open Access land • Re-establishment of a continual cliff top walk adjacent to Kessingland Beach will encourage walkers to avoid walking on the beach habitat.

Risk to conservation objectives	Relevant design features of the access proposal
	Access Management: • The existing seasonal dogs to leads restriction across The Denes CROW Open Access land will not be affected by these proposals, and will benefit from improved signage. Restrictions • S26(3)(a) seasonal access exclusions are proposed at the Suffolk Coast NNR foreshore and at Easton, Covehithe and Benacre Broad foreshores. This is to complement the existing management practise which involves seasonal fencing to protect breeding little terns at these locations. • Seasonal dogs to leads restrictions on nature conservation grounds are proposed across Dunwich Heath and The Denes to complement this existing management practise at these sites. Interpretation, Signage and Mapping • Installation of interpretation panels and advisory boards to raise awareness and indicate when dogs to leads restrictions are in place, for example the seasonal advisory sign at the Benacre Ness pumping station. Additional signage at the Easton Broad OAR will remind walkers to keep their dogs under control at all times. • Waymarkers will channel walkers onto a single pathway preventing widespread disturbance • Signage around the Broads and the Easton Broad OAR will inform walkers that dogs should be kept under control at all times. • NE will request that the Optional Alternative Route (OAR) landwards of Easton Broad will not be depicted on OS mapping to reduce unnecessary use of this route. • Installation of interpretation panels and advisory boards will raise awareness and indicate where access is restricted, and inform walkers about responsible photography techniques at Dunwich Heath to promote the reduction of bird disturbance.

Risk to conservation objectives	Relevant design features of the access proposal
	Installation of Infrastructure • Vegetative screening will be planted at the Easton Broad OAR to reduce the visibility of walkers from Easton Marshes. • Replacement of the existing boardwalk at this OAR will encourage walkers to remain on the trail
Loss of habitats and plants associated with river banks, ditches, dykes, grazing marsh, saltmarsh, reedbeds and woodland	Route Alignment • The alignment landwards of Dingle Marshes is fenced on either side from Dunwich to Sandymount Covert, preventing access into the coastal margin. Coastal Margin • No new coastal access rights will be created over areas of mudflat or saltmarsh that are unsuitable for public access. Trampling at Dingle and Corporation Marshes, and the SAC area within coastal margin north of these marshes, will be prevented in this way. Interpretation and Signage • Signage will be installed on existing walked routes resulting in no significant loss of habitat. Route Improvements • Resurfacing works are proposed along the existing PROW at Dingle and Corporation Marshes. These will not increase the footprint of the existing walked route and result in no net loss of habitat.
Trampling and loss of vegetated shingle	Route Alignment • The alignment avoids areas of vegetated shingle where a cliff top or other walked route is more suitable. Coastal Margin • Seasonal fencing for ground nesting birds along the Suffolk Coast NNR will indirectly prevent trampling of vegetated shingle.

Risk to conservation objectives	Relevant design features of the access proposal
	Interpretation and Signage • Clear waymarking of the route will encourage users to remain on the main path. • Advisory signs at AHS-3-S034 and S035 will focus walkers onto a single pathway across the vegetated shingle area, across an existing worn route, and advisory plaques will request that walkers remain on this path. • Advisory signs will advise walkers who choose to walk along the shoreline to remain below the strandline (high water mark) wherever possible. Route Improvements • Resurfacing works are proposed along the existing PROW to the south of the Coastguard Cottages to encourage walkers away from shingle foreshore. These will not increase the footprint of the existing walked route and result in no net loss of habitat. Installation of Infrastructure • A soft post and rope guide fence will be installed on the Dingle Marshes and Suffolk Coast NNR foreshore with an advisory board to inform walkers of the vegetated shingle habitat and encourage them to avoid trampling this by walking along the intertidal whenever possible.
Tramping and loss of heathland	Route Alignment • The alignment at Dunwich Heath is along a well-established pathway maintained by the National Trust. • The alignment across The Denes follows a well-established walking route on Open Access land. Coastal Margin • Seasonal dogs to leads restrictions on nature conservation grounds are proposed across Dunwich Heath and The Denes to complement this existing management practice at these sites.

Risk to conservation objectives	Relevant design features of the access proposal
	Interpretation and Signage • Waymarkers will encourage path users to remain on the well-established walked routes. • Signage will be installed along the existing pathways resulting in no significant loss of heathland habitat.
Trampling of saline lagoon margins	Route Alignment • The alignment landwards of Dingle Marshes is fenced on either side from Dunwich to Sandymount Covert, preventing access into the coastal margin. Coastal Margin • No new coastal access rights will be created over areas of mudflat or saltmarsh that are unsuitable for public access. Dingle and Corporation Marshes are covered by and s25A access exclusion. • The Denes are an area of CROW Open Access Land and are subject to a seasonal dogs to leads restriction which is expected to continue. Furthermore a s26(3)(a) seasonal dogs to leads restriction will be put in place on the trail and within coastal margin at The Denes. • Areas at the Broads that are seasonally fenced to protect nesting little terns will indirectly prevent access to the saline lagoons. Interpretation and Signage • Signage will be installed at the Broads and The Denes to inform walkers of the sensitive nature of the lagoons and ask that dogs are not allowed to enter these waterbodies.
Loss of SPA supporting habitat	Route Alignment • The majority of the route is on existing access. Interpretation and Signage • Clear waymarking of the route will encourage users to remain on the main path, thus focussing footfall and preventing any additional worn routes from forming.

Risk to conservation objectives	Relevant design features of the access proposal
	Installation of Infrastructure • Simple waymarkers and multi-finger posts will be installed on the pathway wherever possible • A pedestrian gate and barrier installed within Easton Wood at AHS-4-S016 will manage access and deter trespass. • A replacement boardwalk will be installed on the Easton Broad OAR to encourage walkers to remain on the route. • A post and rope guide fence installed within the Suffolk Coast NNR on the foreshore seawards of Dingle Marshes will guide walkers away from the vegetated shingle.
Installation of Infrastructure *(taken in this assessment to include works including scrub clearance and the planting of a vegetative screen)*	• All infrastructure on or near to a designated site is recommended to be installed during the autumn and winter months to avoid potential disturbance to breeding birds. • Larger infrastructure (such as the replacement boardwalk at the Easton Broad OAR) must be installed during the autumn and winter months. • The local authority is to schedule with natural England to limit disturbance risk. • Operators are to use hand tools wherever practicable. • Operators working within 200m and within sight of roost sites should halt activity 2 hours before and after high tide whenever possible. • Installation should be confined to daylight hours and the site designed in such a way to minimise disturbance impacts.

VI) Implementation

Once a route for the trail has been confirmed by the Secretary of State, we will work with Suffolk County Council to ensure any works on the ground are carried out with due regard to the conclusions of this appraisal and relevant statutory requirements.

VII) Thanks

The development of our proposals has been informed by input from people with relevant expertise within Natural England and other key organisations. The proposals have been thoroughly considered before being finalised and our initial ideas were modified during an iterative design process. We are particularly grateful to the RSPB North Suffolk Coast Reserves Sites Manager and RSPB Minsmere site staff, The British Trust for Ornithology (BTO), The Suffolk Wildlife Trust, The Suffolk Moth Group, and other organisations and local experts whose contributions and advice have helped to inform development of our proposals.

PART A: Introduction and information about the England Coast Path

A1. Introduction

Natural England has a statutory duty under the Marine and Coastal Access Act 2009 to improve access to the English coast. The duty is in two parts: one relating to securing a long-distance walking route around the whole coast: we call this the England Coast Path; the other relating to a margin of coastal land associated with the route where in appropriate places people will be able to spread out and explore, rest or picnic.

To secure these objectives, we must submit reports to the Secretary of State for Environment, Food and Rural Affairs recommending where the route should be and identifying the associated coastal margin. The reports must follow the approach set out in our methodology (the Coastal Access Scheme), which – as the legislation requires – has been approved by the Secretary of State for this purpose.

Where implementation of a Coastal Access Report would be likely to have a significant effect on a site designated for its international importance for wildlife, called a 'European site[1]', the report must be subject to special procedures designed to assess its likely significant effects.

The conclusions of this screening are certified by both the member of staff responsible for developing the access proposal and the person responsible for considering any environmental impacts. This ensures appropriate separation of duties within Natural England.

Natural England's approach to ensuring the protection of sensitive nature conservation features under the Coastal Access Programme is set out in the Coastal Access Scheme [Ref 1]. Note that, following a ruling by the Court of Justice of the European Union (Case C-323/17 – usually cited as People over Wind), we have issued a technical memorandum concerning the application of this methodology where assessment under the Habitats Regulations is required.

[1] Ramsar sites are treated in the same way by UK government policy

A2. Details of the plan or project

This assessment considers Natural England's proposals for coastal access along the stretch of coast between Aldeburgh and Hopton-on-Sea. Our proposals to the Secretary of State for this stretch of coast are presented in a series of reports that explain how we propose to implement coastal access along each of the constituent lengths within the stretch. Within this assessment we consider each of the relevant reports, both separately and as an overall access proposal for the stretch in question.

Our proposals for coastal access have two main components:

- alignment of the England Coast Path; and,
- designation of coastal margin.

England Coast Path

A continuous walking route around the coast – the England Coast Path National Trail - will be established by joining up existing coastal paths and creating new sections of path where necessary. The route will be established and maintained to National Trail quality standards. The coastal path will be able to 'roll back' as the occasional cliffs on this stretch erode or slip, solving long-standing difficulties with maintaining a continuous route on this stretch of coast.

Coastal Margin

An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail down to mean low water.

Coastal margin is typically subject to new coastal access rights, though there are some obvious exceptions to this. The nature and limitations of the new rights, and the key types of land excepted from them, are explained in more detail in Chapter 2 of our Coastal Access Scheme [Ref 1]. Where there are already public or local rights to do other things, these are normally unaffected and will continue to exist in parallel to the new coastal access rights. The exception to this principle is any pre-existing open access rights under Part 1 of the Countryside and Rights of Way Act 2000 (CROW) over land falling within the coastal margin: the new coastal access rights will apply in place of these.

Where public access on foot already takes place on land within the margin without any legal right for people to use the land in this way, the new coastal access rights will secure this existing use legally. Access secured in this way is subject to various national restrictions. It remains open to the owner of the land, should they wish, to continue tolerating other types of established public use not provided for by coastal access rights.

Of particular relevance to this assessment is that most areas of saltmarsh and mud flat within this stretch are considered unsuitable for public access and will be excluded from the new coastal access rights at all times regardless of any other considerations.

PART B: Information about the European Site(s) which could be affected

B1. Brief description of the European Sites(s) and their Qualifying Features

Sandlings Special Protection Area (SPA)

The Sandlings SPA is located landwards of Thorpeness towards the southern end of this Coast Path stretch. This area has been previously dominated by heathland although large areas of heath have since been planted with blocks of commercial conifer forests and others converted to arable agriculture. Lack of traditional management has resulted in the remnant areas of heath being subject to successional changes, with the consequent spread of bracken, shrubs and trees, although recent conservation management work is resulting in their restoration. The heaths support both acid grassland and heather dominated plant communities, with dependant invertebrate and bird communities of conservation value. Woodlark *Lullula arborea* and nightjar *Caprimulgus europaeus* have also adapted to breeding in the large conifer forest blocks, using areas that have recently been felled and recent plantation, as well as areas managed as open ground.

Outer Thames Estuary SPA

The Outer Thames Estuary SPA covers a large marine & coastal area stretching from Caister-on-Sea in Norfolk down the Suffolk coast to Sheerness on the Kent coastline, and reaching as far as Canvey Island into the Thames Estuary. The SPA consists of areas of shallow and deeper water, high tidal current streams and a range of mobile sediments. Large areas of mud, silt and gravelly sediments form the deeper water channels, including the port approaches to London. The coastal parts of the site consist of shingle and sand beaches, rapidly eroding low cliffs and mudflat-lined estuaries. The site is designated for non-breeding red-throated diver (*Gavia stellata*), a diving bird which breeds near the freshwater lochs of Scotland as well as in Scandinavia, and which overwinters in large numbers within the southern North Sea, feeding predominately on fish. The site is also designated for breeding common tern (*Sterna hirundo*) and little tern (*Sternula albifrons*). Both tern species breed on the dynamic Scroby Sands intertidal sandbank, located 6km offshore from Great Yarmouth and within this SPA. The Outer Thames Estuary SPA protects important at-sea foraging waters for common and little tern which breed at seven adjacent SPAs: Great Yarmouth North Denes; Benacre to Easton Bavents; Breydon Water; Minsmere-Walberswick; Alde-Ore Estuary; Foulness; and Thanet Coast and Sandwich Bay SPAs. The coastal waters of the SPA are used for foraging, as well as a wide range of maintenance activities such as bathing and loafing.

Of particular relevance to this stretch is the inclusion of part of the Blythe Estuary, part of which lies within the Minsmere-Walberswick SPA in addition to areas up the coast (to Southwold), and down the coast (to Leiston) to provide continuous coverage for little terns foraging from this SPA; and the inclusion of coastal areas down the coast to just south of Corton to provide coverage for common terns from Breydon Water foraging in this SPA.

Southern North Sea Special Area of Conservation (SAC)

The Southern North Sea SAC covers a marine & coastal area of importance for harbour porpoise. This site includes key winter and summer habitat for this species and covers an area over three times the size of Yorkshire, making it the largest SAC in UK and European waters at the point of designation in 2019. Located to the east of England, this site stretches from the central North Sea (north of Dogger Bank) to the Straits of Dover in the south, covering an area of 36 951km^2. The majority of this site lies offshore, though it does extend into coastal areas of Norfolk and Suffolk crossing the 12 nautical mile boundary.

Minsmere-Walberswick SPA

The Minsmere-Walberswick SPA lies on the Suffolk coast between Southwold and Sizewell. Minsmere-Walberswick SPA contains a mosaic of habitat that supports the designated bird species of this site. There are extensive areas of freshwater and coastal grazing marsh, coastal reedbeds, saltmarsh, lowland heathland, woodland, intertidal mud and mixed sediment. During severe winter weather Minsmere-Walberswick SPA can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate, compared with continental areas, and the abundant food resources available.

The Minsmere Nature Reserve (NR) is managed by the RSPB, and the Suffolk Coast National Nature Reserve is managed by Natural England in conjunction with the RSPB and the Suffolk Wildlife Trust.

Minsmere-Walberswick Ramsar

This Ramsar covers the same area as the Minsmere-Walberswick SPA described above.
This composite, Suffolk coastal site contains a complex mosaic of habitats, notably, areas of marsh with dykes, extensive reedbeds, mudflats, lagoons, shingle and driftline, woodland and areas of lowland heath. The site supports the largest continuous stand of reed in England and Wales and demonstrates the nationally rare transition in grazing marsh ditch plants from brackish to fresh water. It also supports a population of the mollusc *Vertigo angustior* (Habitats Directive Annex II; British Red Data Book Endangered), recently discovered on the Blyth estuary river walls.

The combination of habitats create an exceptional area of scientific interest supporting nationally scarce plants, British Red Data Book invertebrates and nationally important numbers of breeding and wintering birds.

Minsmere to Walberswick Heaths and Marshes SAC

This SAC overlaps partially with the Minsmere-Walberswick SPA and Ramsar area although covers a wider area. This composite site between Henham and Southwold in the north and Sizewell in the south contains a complex series of habitats, notably mudflat, shingle beach, reedbed, heathland and grazing marsh. Shingle beach forms the coastline adjacent to Minsmere, Dunwich and Walberswick. This is subject to sea erosion and human disturbance but, nevertheless, it supports a variety of scarce shingle plants including sea pea *Lathyrus japonicus*, sea campion *Silene maritima* and small

populations of sea kale *Crambe maritima*, grey hair-grass *Corynephorus canescens* and yellow horned-poppy *Glaucium flavum*. High land at Minsmere, Westleton and Walberswick forms part of the East Suffolk Sandlings and is composed of infertile sands and gravels. This supports large areas of lowland heath, bracken, dry acidic grassland, woods and scrub. Lowland heath, dominated by heather, provides a valuable habitat for two nationally decreasing birds, the nightjar and woodlark. A variety of other acid grassland plants are also present, of which heath bedstraw *Galium saxatile* and sheep's sorrel *Rumex acetosella* are common.

Benacre to Easton Bavents SPA

Benacre to Easton Bavents SPA is situated on the coast of Suffolk between Kessingland to the north and Southwold to the South and its distinctive landscape has been greatly shaped by the actions of the sea. Much of the coastline is naturally dynamic and subject to erosion, especially that which forms the eastern boundary of the SPA, with an average of 10 metres disappearing annually. Much of the semi-natural habitat consists of open heathlands and acid grassland. However, there are also broadleaved woodland and softwood plantations, and tall fen vegetation in the river valleys and marshes nearer the coast. The area also has internationally important stretches of shingle, dunes, saltmarsh and coastal lagoons which are very important for breeding, wintering and passage birds.

Benacre to Easton Bavents Lagoons SAC

Benacre to Easton Bavents SAC is located on the Suffolk coast, one of the most important areas in Great Britain for saline lagoon habitat. The site encompasses an internationally important complex of four saline lagoons, which span over 5km of coastline. Benacre, Covehithe and Easton Broads were formed naturally when coastal processes formed shingle barriers across the head of several freshwater streams, isolating them from the sea and creating a series of percolation lagoons. In contrast, Benacre Pit is the last of several small lagoons located in former WWII gravel extraction pits, most of which have been lost to coastal erosion. Seawater enters the lagoons via percolation and occasional overtopping and breaching of shingle barriers, creating a wide range of salinities. Coastal lagoons are rare at a European scale and also uncommon nationally; as such the plant and animal communities typical of saline lagoons have restricted distributions making Benacre to Easton Bavents Lagoons nationally and internationally important for lagoonal specialists. The lagoons also host breeding birds, over wintering bittern and an assemblage of rare plants. Coastal lagoons are naturally ephemeral features. The dynamic geomorphological processes which form and maintain them (such as storm events and longshore drift) typically also result in their migration or loss over time as barriers are overtopped, breached or eroded and lagoon basins are gradually in-filled. As such the conservation status of Benacre to Easton Bavents Lagoons should be evaluated at a landscape scale and in the context of this natural habitat creation and loss.

Table 3. Qualifying features

Qualifying feature	Minsmere Walberswick SPA	Minsmere Walberswick Ramsar site	Minsmere to Walberswick Heaths and Marshes SAC	Benacre to Easton Bavents Lagoons SAC	Benacre to Easton Bavents SPA	Sandlings SPA	Outer Thames Estuary SPA	Southern North Sea SAC
Harbour porpoise *Phocoena phocoena*								✓
A195 Little tern *Sternula albifrons* (breeding)	✓				✓		✓	
A193 Common tern *Sterna hirundo* (breeding)							✓	
A081 Eurasian marsh harrier *Circus aeruginosus* (breeding)	✓	✓			✓			
A021 Great bittern *Botaurus stellaris* (breeding)	✓	✓			✓			
A132 Avocet *Recurvirostra avosetta* (breeding)	✓	✓						
A051 Gadwall *Mareca* (formerly *Anas*) *strepera* (Non-breeding)	✓							
A051 Gadwall *Mareca* (formerly *Anas*) *strepera* (Breeding)	✓	✓						
A052 Eurasian teal *Anas crecca* (Breeding)	✓	✓						
A056 Northern shoveler *Spatula* (formerly *Anas) clypeata* (Breeding)	✓	✓						
A056 Northern shoveler *Spatula* (formerly *Anas) clypeata* (Non-breeding)	✓							
A082 Hen harrier *Circus cyaneus* (Non-breeding)	✓							
A224 European nightjar *Caprimulgus europaeus* (Breeding)	✓					✓		
A394 Greater white-fronted goose *Anser albifrons albifrons* (Non-breeding)	✓							

Qualifying feature	Minsmere Walberswick SPA	Minsmere Walberswick Ramsar site	Minsmere to Walberswick Heaths and Marshes SAC	Benacre to Easton Bavents Lagoons SAC	Benacre to Easton Bavents SPA	Sandlings SPA	Outer Thames Estuary SPA	Southern North Sea SAC
Assemblage of breeding birds (bittern, gadwall, teal, shoveler, marsh harrier, avocet, bearded tit)		✓						
A246 Woodlark *Lullula arborea* (breeding)						✓		
A001 Red-throated diver *Gavia stellata* (non-breeding)							✓	
Ramsar criterion 1: The site contains a mosaic of marine, freshwater, marshland and associated habitats, complete with transition areas in between. Contains the largest continuous stand of reedbeds in England and Wales and rare transition in grazing marsh ditch plants from brackish to fresh water. Ramsar criterion 2: This site supports nine nationally scarce plants and at least 26 red data book invertebrates. Supports a population of the mollusc *Vertigo angustior* (Habitats Directive Annex II; British Red Data Book Endangered), recently discovered on the Blyth estuary river walls. An important assemblage of rare breeding birds associated with marshland and reedbeds including: Bittern, gadwall, Eurasian teal, northern shoveler, Eurasian marsh harrier, pied avocet, bearded tit		✓						

Qualifying feature	Minsmere Walberswick SPA	Minsmere Walberswick Ramsar site	Minsmere to Walberswick Heaths and Marshes SAC	Benacre to Easton Bavents Lagoons SAC	Benacre to Easton Bavents SPA	Sandlings SPA	Outer Thames Estuary SPA	Southern North Sea SAC
Coastal/ Saline Lagoons		✓		✓				
H4030 European dry heaths *Calluna vulgaris – Ulex gallii, Calluna vulgaris - Festuca ovina, Erica cinerea*;			✓					
H1220 Perennial vegetation of stony banks *Rumex crispus - Glaucium flavum* shingle community			✓					
H1210 Annual vegetation of drift *line Cakile maritima-Honkenya peploides* strandline community			✓					
Mosaic of marsh with dykes, extensive reedbeds, mud flats, lagoons, shingle, woodland and areas of lowland heath		✓						
Plant Assemblage including: red-tipped cudweed *Filago lutescens* (RDB2) *Corynephorus canescens* (RDB3) *Althaea officinali, Myriophyllum verticillatum, Ruppia cirrhosa, Sium latifolium, Sonchus palustris, Ceratophyllum submersum,* *Ranunculus baudotii*, and *Carex divisa* (all nationally scarce) are associated with reedbeds, grazing marsh or ditches. *Hordeum marinum* occurs on sea-walls, *Lathyrus japonicus* on coastal shingle *Crassula tillaea* on heathland.		✓						

Qualifying feature	Minsmere Walberswick SPA	Minsmere Walberswick Ramsar site	Minsmere to Walberswick Heaths and Marshes SAC	Benacre to Easton Bavents Lagoons SAC	Benacre to Easton Bavents SPA	Sandlings SPA	Outer Thames Estuary SPA	Southern North Sea SAC
Invertebrate Assemblage (see notes below)								
Arctosa fulvolineata								
Aleochara (Xenochara) inconspicua								
Philonthus dimidiatipennis								
Acartophthalmus bicolor								
Telmaturgus tumidulus								
Dicranomyia danica								
Erioptera bivittata								
Erioptera meijerei								
Cephalops perspicuus								
Haematopota grandis								
Tipula marginella								
Pelosia muscerda								
Archanara neurica								
Deltote bankiana		✓						
Heliothis viriplaca								
Protarchanara brevilinea								
Senta flammea								
Aphomia zelleri								
Gymnancyla canella								
Pima boisduvaliella								
Eucosma lacteana								
Eucosma rubescana								
Vertigo (Vertilla) angustior								
Pisidium pseudosphaerium								
Podalonia affinis								
Herminia tarsicrinalis								
Ethmia bipunctella								

Note: as listed in the qualifying feature table above great bittern, northern shoveler, Eurasian teal, Eurasian marsh harrier and European nightjar will be referenced as bittern, shoveler, teal, marsh harrier and nightjar respectively in the remainder of the assessment.
Invertebrates: This list has been compiled after consultation with a Natural England specialist and corrects for errors on the Ramsar Information sheet.

It is considered that some designated features of the Minsmere-Walberswick Heaths and Marshes SSSI fall under the overarching Minsmere-Walberswick Ramsar features, or other European designated sites. They have therefore been brought forward into this Habitats Regulations Assessment. These features are shown in Table 4, and an overview of these divisions is shown in Appendix 2.

Table 4. Minsmere-Walberswick SSSI Features Covered within this Assessment

Minsmere-Walberswick Heaths and Marshes SSSI Feature	**Overarching Minsmere-Walberswick Ramsar Designation**
Cetti's Warbler *Cettia cetti* (breeding)	Wetland bird assemblage (breeding)
Water rail *Rallus aquaticus* (breeding)	Wetland bird assemblage (breeding)
Garganey *Spatula* (formerly *Anas*) *querquedula* (breeding)	Wetland bird assemblage (breeding)
Shelduck (breeding) *Tadorna tadorna* (part of SSSI assemblage)	Wetland bird assemblage (breeding)
Saltmarsh	Mosaic of marine, freshwater, marshland and associated habitats
Elytrigia atherica saltmarsh	Mosaic of marine, freshwater, marshland and associated habitats
Phragmites australis swamp and reed-beds	Mosaic of marine, freshwater, marshland and associated habitats
Carex acutiformis swamp	Mosaic of marine, freshwater, marshland and associated habitats
Lowland ditch systems	Mosaic of marine, freshwater, marshland and associated habitats
Juncus subnodulosus - Cirsium palustre fen meadow	Mosaic of marine, freshwater, marshland and associated habitats
Juncus effusus / acutiflorus - Galium palustre rush pasture	Mosaic of marine, freshwater, marshland and associated habitats
Filipendula ulmaria - Angelica sylvestris mire	Mosaic of marine, freshwater, marshland and associated habitats
Cladium mariscus swamp and sedge-beds	Mosaic of marine, freshwater, marshland and associated habitats
Phragmites australis - Urtica dioica tall-herb fen	Mosaic of marine, freshwater, marshland and associated habitats
Calluna vulgaris - Ulex gallii	Mosaic of marine, freshwater, marshland and associated habitats
Calluna vulgaris - Festuca ovina	Mosaic of marine, freshwater, marshland and associated habitats

Minsmere-Walberswick Heaths and Marshes SSSI Feature	Overarching Minsmere-Walberswick Ramsar Designation
Alnus glutinosa - Urtica dioica woodland	Mosaic of marine, freshwater, marshland and associated habitats
Sheltered muddy shores (including estuarine muds)	Mosaic of marine, freshwater, marshland and associated habitats
Odontomyia ornata - Soldier fly	Wetland invertebrate assemblage. Assessed within the invertebrate assemblage
Carex arenaria - Cornicularia aculeata dune community	To be assessed in conjunction with the SAC qualifying features 'H1220 Perennial vegetation of stony banks *Rumex crispus - Glaucium flavum* shingle community' and 'H1210 Annual vegetation of drift *line Cakile maritima-Honkenya peploides* strandline community'
Carex arenaria - Festuca ovina - Agrostis capillaris dune grassland	As above
Ammophila arenaria mobile dune community	As above

Non-Breeding Avocet and Bittern

A significant proportion of the breeding avocets and bittern will remain in these designated sites over the winter, in turn forming a significant part of the wintering population. Potential risks to the wintering population may indirectly affect the success of the breeding population. Furthermore, the Third JNCC SPA Network review (2016) [Ref 2] has recommended the designation of these species within the Minsmere-Walberswick SPA, alongside woodlark. Non-breeding bittern have been recommended for designation within the Benacre to Easton Bavents SPA. For these reasons we have opted to include non-breeding avocet and bittern within this HRA assessment.

B2. European Site Conservation Objectives (including supplementary advice)

Natural England provides advice about the Conservation Objectives for European Sites in England in its role as the statutory nature conservation body. These Objectives (including any Supplementary Advice which may be available) are the necessary context for all HRAs.

The overarching Conservation Objectives for every European Site in England are to ensure that the integrity of each site is maintained or restored as appropriate, and that each site contributes to achieving the aims of the Habitats Regulations, by either maintaining or restoring (as appropriate):

- The extent and distribution of their qualifying natural habitats,
- The structure and function (including typical species) of their qualifying natural habitats,
- The supporting processes on which their qualifying natural habitats rely,
- The supporting processes on which the habitats of their qualifying features rely,
- The population of each of their qualifying features, and
- The distribution of their qualifying features within the site.

Where Conservation Objectives Supplementary Advice is available, which provides further detail about the features' structure, function and supporting processes mentioned above, the implications of the plan or project on the specific attributes and targets listed in the advice will be taken into account in this assessment.

In light of the European Sites which could be affected by the plan or project, this assessment will be informed by the following site-specific Conservation Objectives, including any available supplementary advice.

Supplementary advice on the conservation objectives for the following sites can be viewed at https//:designatedsites.naturalengland.org.uk and http://publications.naturalengland.org.uk. Alternatively click the designated area titles below for further information:

Sandlings SPA

Outer Thames Estuary SPA

Southern North Sea SAC

Minsmere Walberswick SPA

Minsmere to Walberswick Heaths & Marshes SAC

Benacre to Easton Bavents SPA

Benacre to Easton Bavents Lagoons SAC

For Ramsar sites, a decision has been made by Defra and Natural England not to produce Conservation Advice packages, instead focussing on the production of High Level Conservation Objectives. As the provisions on the Habitats Regulations relating to Habitat Regulations Assessments extend to Ramsar sites, Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests.

PART C: Screening of the plan or project

C1. Is the plan or project either directly connected with or necessary to the (conservation) management (of the European Site's qualifying features)?

The Coastal Access Plan is not directly connected with or necessary to the management of the European or Ramsar sites for nature conservation listed in B1 above.

Conclusion:

As the plan or project is not either directly connected or necessary to the management of all of the European site(s)'s qualifying features, and/or contains non-conservation elements, further Habitats Regulations assessment is required.

C2. Is there a likelihood [or risk] of significant [adverse] effects ('LSE')?

This section details whether those constituent elements of the plan or project which are (a) not directly connected with or necessary to the management of the European Site(s) features and (b) could conceivably adversely affect a European site, would have a **likely significant effect,** either alone or in combination with other plans and projects, upon the European sites and which could undermine the achievement of the site's conservation objectives referred to in section B2.

In accordance with case law, this HRA has considered an effect to be 'likely' if it '*cannot be excluded on the basis of objective information'* and is 'significant' if it *'undermines the conservation objectives'*. In accordance with Defra guidance on the approach to be taken to this decision, in plain English, the test asks whether the plan or project '*may'* have a significant effect (i.e. there is a risk or a possibility of such an effect).

This assessment of risk therefore takes into account the precautionary principle (where there is scientific doubt) and **excludes**, at this stage, any measures proposed in the submitted details of the plan/project that are specifically intended to avoid or reduce harmful effects on the European site(s).

Each of the project elements has been tested in view of the European Site Conservation Objectives and against each of the relevant European site qualifying features. An assessment of potential effects using best available evidence and information has been made.

C2.1 Risk of Significant Effects Alone

The first step is to consider whether any elements of the project are likely to have a significant effect upon a European site 'alone' (that is when considered in the context of the prevailing environmental conditions at the site but in isolation of the combined effects of any other 'plans and projects'). Such effects do not include those deemed to be so insignificant as to be trivial or inconsequential.

In this section, we assess risks to qualifying features, taking account of their sensitivity to coastal walking and other recreational activities associated with coastal access proposals, and in view of each site's Conservation Objectives.

For the purposes of this assessment, the qualifying features of the European Sites listed in B1 have been grouped as follows:

Table 5. Feature groups

Feature group	Qualifying feature(s)
Wetland breeding bird assemblage	Assemblage of breeding birds (gadwall; shoveler; teal; bearded tit; Cetti's warbler; shelduck; water rail; garganey)
Breeding terns and avocet	Little tern; common tern; avocet
Long-staying water and wetland birds (breeding and non-breeding)	Gadwall; shoveler; teal; avocet (non-breeding); bittern (non-breeding)
Non-breeding greater white-fronted goose	Greater white-fronted goose
Breeding bittern and marsh harrier	Bittern; marsh harrier
Non-breeding red-throated diver	Red-throated diver
Non-breeding hen harrier	Hen harrier
Heathland ground-nesting birds	Nightjar; woodlark
Heathland	European dry heaths; *Crassula tillaea; Calluna vulgaris – Ulex gallii; Calluna vulgaris - Festuca ovina; Erica cinerea;*

Feature group	Qualifying feature(s)
Saline lagoons	Saline lagoon margins
Habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland	Reed beds *Phragmites australis*; salt marsh; ditches; dykes; grazing marsh; *Althaea officinalis; Sium latifolium; Sonchus palustris; Carex divisa; Elytrigia atherica saltmarsh; Phragmites australis* swamp and reed-beds; *Carex acutiformis* swamp; Lowland ditch systems; *Juncus subnodulosus - Cirsium palustre* fen meadow; *Juncus effusus / acutiflorus - Galium palustre* rush pasture; *Filipendula ulmaria - Angelica sylvestris* mire; *Cladium mariscus* swamp and sedge-beds; *Phragmites australis - Urtica dioica* tall-herb fen; *Alnus glutinosa - Urtica dioica* woodland
Plants associated with water	*Myriophyllum verticillatum; Ruppia cirrhosa; Ceratophyllum submersum; Ranunculus baudotii;*
Hordeum marinum	*Hordeum marinum* (sea barley)
Filago lutescens	*Filago lutescens* (RDB2) (red-tipped cudweed)
Saltmarsh and peatland invertebrates	*Arctosa fulvolineat;, Aleochara (Xenochara) inconspicua; Philonthus dimidiatipennis; Telmaturgus tumidulus; Dicranomyia Danica; Erioptera bivittata; Erioptera meijerei; Cephalops perspicuous; Haematopota grandis; Tipula marginella; Pelosia muscerda; Archanara neurica; Deltote bankiana; Heliothis viriplaca; Protarchanara brevilinea; Senta flammea; Aphomia zelleri; Gymnancyla canella; Pima boisduvaliella; Eucosma lacteana; Eucosma rubescana; Vertigo (Vertilla) angustior; Pisidium pseudosphaerium; Odontomyia ornate*
Sand and shingle invertebrates	*Podalonia affinis*; *Ethmia bipunctella*
Woodland invertebrates	*Herminea tarsicrinalis; Acartophthalmus bicolor*
Vegetated Shingle	H1220 Perennial vegetation of stony banks *Rumex crispus - Glaucium flavum* shingle community; H1210 Annual vegetation of drift line *Cakile maritima-Honkenya peploides* strandline community; *Lathyrus japonicas; Corynephorus canescens* (RDB3); *Carex arenaria - Cornicularia aculeata* dune community;

Feature group	Qualifying feature(s)
	Carex arenaria - Festuca ovina - Agrostis capillaris dune grassland; *Ammophila arenaria* mobile dune community
Mudflats	Mudflats
Harbour porpoise	Harbour porpoise
SPA supporting habitat	Shingle; sand dunes and sandy areas; cliffs and slopes; woodland; lowland fens/wetlands

Table 6. Assessment of likely significant effects alone

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Wetland breeding bird assemblage	Disturbance of feeding and nesting birds.	Breeding birds nesting and feeding near the proposed route or within the coastal margin may be disturbed by recreational activity. The birds can show a range of responses from being alert to making major flights. Disturbance during breeding season can lead to direct trampling of eggs and chicks, or disturbance of incubating parents leading to increased mortality through predation or hypothermia/heat.	Breeding birds are present in significant numbers in locations on this part of the stretch so a significant effect is considered likely at this stage of the assessment.	Yes
Breeding terns and avocet	Disturbance of feeding and nesting birds.	The qualifying features in this group are colonial species and nest on shingle beaches and rocky islands, on rivers with shingle bars, and at inland gravel pits and reservoirs. Nesting birds are particularly vulnerable to disturbance as a result of recreational activities (including walking and walking	The scrape at Minsmere RSPB attracts breeding terns and avocets. This is landward of the alignment and is managed as part of the reserve, including public viewing areas. The large shingle ridge seawards of Dingle Marshes within Suffolk Coast NNR is an important nesting site for terns and avocet. As a result a significant effect is considered likely at this stage of the assessment.	Yes

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		with a dog) which can lead to direct trampling of eggs and chicks, or disturbance of incubating parents leading to increased mortality through predation or hypothermia/heat. Connectivity between breeding areas and off-shore foraging areas is potentially sensitive in that the presence of walkers/dogs in certain locations may disrupt or change normal flight routes.	Terns and avocet regularly breed on the sand and shingle beaches adjacent to Benacre, Covehithe and Easton Broads. As a result a significant effect is considered likely at this stage of the assessment.	
Long-staying water birds (breeding and non-breeding)	Disturbance of feeding, resting and breeding birds	The qualifying features in this group have been known to remain on site year round. Breeding and non-breeding birds using the wetland habitat around Dingle Marshes to nest, rest and feed may be disturbed by recreational activity. The birds can show a range of responses from being alert to making major flights. Disturbance during	Both gadwall and shoveler are known to remain on site year round through both wintering and breeding season. Their habitat for nesting and feeding are restricted to wetlands, predominantly within the Minsmere RSPB reserve, although they do also use Dingle Marshes to a lesser extent. Between 2011/12 and 2015/16 the mean peak count of breeding teal pairs was one (SPA supplementary advice). Breeding teal have been scarce in the region for	No However non-breeding bittern at Pottersbridge marshes seaward of the Easton Broad OAR will be assessed further below to ensure no

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		the wintering season can lead to extra energy expenditure, interrupted feeding and reduced survival rates. Disturbance during the breeding season can lead to direct trampling of eggs and chicks, or disturbance of incubating parents leading to increased mortality through predation or hypothermia/heat.	decades but the reasons for this are unclear. Like other water birds, they breed near water and feed upon saltmarsh and grazing marsh. Teal occur within the Minsmere RSPB nature reserve and the Dingle Marshes, plus units 1,9,10 & 11 of the Minsmere-Walberswick Heaths and Marshes SSSI (these include the Tinkers Marsh and Town Marsh areas). These units are spatially separated from the path proposals. Avocet overwinter along the stretch at locations such as Minsmere and the Blyth Estuary. Bittern are known at the Minsmere Nature Reserve and within the Westwood and Dingle Marshes. The reedbeds within the Benacre to Easton Bavents SPA host important numbers of this species over winter. New access is proposed at Pottersbridge Marshes on the Easton Broads OAR, which has higher anticipated use in the winter months. However bittern forage within dense reedbeds and is a secretive bird. For this reason it is less likely to be disturbed by passers-by than other species.	significant effect.

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
			A year round exclusion of access (Section 25A or 's25A') over the wetland areas at Dingle Marshes will remove new access rights over the marshes here.	
Non-breeding greater white-fronted goose	Disturbance of feeding and resting birds	Small numbers of this feature are known to feed and roost around Dingle Marshes and may be disturbed by recreational activity. The birds can show a range of responses from being alert to making major flights. Disturbance during the wintering season can lead to extra energy expenditure, interrupted feeding and reduced survival rates.	These birds feed predominantly within the North Warren RSPB reserve which will be unaffected by our proposals and low numbers have been counted at the Dingle Marshes. The birds roost on the wider SPA at night. A year round exclusion of access (s25A) over the wetland areas at Dingle Marshes NR will remove new access rights over the marshes here.	No
Breeding bittern and marsh harrier	Disturbance of feeding and nesting birds	Bittern are known to breed in dense reedbeds near to Dingle Marshes and Westwood marshes to the north, may be disturbed by recreational activity. The birds can show a range of responses from being alert to making major flights. Disturbance during	Bittern and marsh harrier at Minsmere-Walberswick SPA breed within the Minsmere RSPB reserve and the Westwood Marshes. They nest in thick reedbed close to open water. A year round exclusion of access (s25A) over the wetland areas at Dingle Marshes within the Suffolk Coast NNR will remove new access rights over the marshes here.	Yes

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		the breeding season can lead to direct trampling of eggs and chicks, or disturbance of incubating parents leading to increased mortality through predation or hypothermia/heat.	Marsh harrier are known to breed and bittern are commonly heard at Easton and Benacre Broads. There is a risk that recreational activity may disturb this feature here.	
Non-breeding hen harrier	Disturbance of feeding and resting birds	Hen harriers that forage over wetland areas may be disturbed by recreational activity. Disturbance during the wintering season can lead to extra energy expenditure, interrupted feeding and reduced survival rates.	No appreciable risk. In 2017 a single male was seen and a ringtail (juvenile or female) was seen at various sites between Minsmere and Walberswick [Ref 3]. In 2016 two ringtails were seen at Minsmere [Ref 4]. The Minsmere-Walberswick SPA supplementary advice states that only one individual has been counted at this site in the five years to 2018. Hen harriers hunt across a large distance over wetland habitat including Dingle Marshes. No known roost sites have been recorded at the SPA, however, they prefer communal roosts on wetlands. A year round exclusion of access (s25A) over the wetland areas at Dingle Marshes will remove new access rights over the marshes here.	No

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Non-breeding red-throated diver	Disturbance of feeding and resting birds	This species feeds predominantly on open water and small lakes. Where the proposal increases access around these areas they may be disturbed by recreational activity. Disturbance during the wintering season can lead to extra energy expenditure, interrupted feeding and reduced survival rates.	No appreciable risk. A feature of the Outer Thames Estuary SPA, this diving bird may use the adjacent SPAs on the stretch to feed. They remain on open water bodies to feed and roost, predominantly offshore but may use smaller lakes onshore. It is considered the spatial separation between path users and birds using waterbodies near the path is sufficient to not cause disturbance.	No
Heathland ground-nesting birds	Disturbance of feeding and nesting birds	Nightjar and woodlark that nest on the ground on heathland near the proposals may be disturbed by recreational activity. The birds can show a range of responses from being alert to making major flights. Disturbance during the breeding season can lead to direct trampling of eggs and chicks, or disturbance of incubating parents leading to increased mortality through predation or hypothermia/heat.	Both woodlark and nightjar are found at Sandlings SPA and Minsmere-Walberswick SPA. The proposal will not affect existing access levels and patterns at Sandlings SPA due to the spatial separation between the proposed route and the landward SPA boundary (approximately 300m from Thorpeness Golf Course at its closest). Improved access at Dunwich Heath within Minsmere - Walberswick SPA may cause disturbance to nightjar and woodlark nesting in close proximity to the proposal. Therefore significant effects on this heathland ground-nesting bird cannot be ruled	Yes

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
			out at this stage of the assessment.	
Heathland	Trampling of vegetation	Where the proposal increases access to heathland the associated species may be damaged or destroyed as a result of frequent trampling.	Areas of heathland may form part of the coastal margin and be subject to new coastal access rights. Significant effects on heathland cannot be ruled out at this stage of the assessment.	Yes
Heathland	Loss of supporting and designated habitat through installation of access management infrastructure	This feature might be sensitive if there were a permanent loss of habitat as a result of the access proposals.	There will be a small loss of European dry heath (<1m^2) due to the installation of 7 new signposts and an interpretation board are proposed around the Dunwich Heath area. Two new advisory signs and a waymarker are proposed around The Denes area. Therefore significant effects cannot be ruled out at this stage.	Yes
Saline lagoon margins	Trampling of associated species and vegetation	Where the proposal increases access to the lagoons the associated species or habitat may be damaged or destroyed as a result of frequent trampling.	Saline lagoons and associated habitat may form part of the coastal margin and be subject to new coastal access rights. Significant effects on saline lagoon margins cannot be ruled out at this stage of the assessment.	Yes
Habitats and plants associated with river banks, ditches,	Trampling of vegetation	A variety of wetland associated plant species including Red Data Book listed plants may be	No appreciable risk. These habitats and species are found predominantly at Dingle Marshes.	No

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
dykes, grazing marsh, salt marsh, reedbeds and woodland		damaged or destroyed as a consequence of repeated trampling from the proposal.	A year round exclusion of access (s25A) over the wetland areas at Dingle Marshes will remove new access rights over the marshes here.	
Habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland	Loss of supporting and designated habitat through installation of access management infrastructure	This feature might be sensitive if there were a permanent loss of habitat as a result of the access proposals.	There will be a small loss of saltmarsh (<1m^2) due to the installation of 4 new waymarkers, a multi-finger post and path surface improvements in the Dingle Marshes and Corporation Marshes area and therefore significant effects cannot be ruled out and at this stage.	Yes
Plants associated with water	None identified	Not considered sensitive because they grow in water.	No appreciable risk because path users will not enter areas of standing or moving water and a year round exclusion (s25A) over unsuitable saltmarsh will restrict new coastal access over these areas.	No
Hordeum marinum	None identified	Not considered sensitive because they grow on the side of sea walls.	No appreciable risk because users will not damage sea walls by walking along the proposed route.	No
Filago lutescens	Trampling of species	Red-tipped cudweed can be damaged or destroyed by people walking over it.	The level of risk is low for this feature. This feature is mostly associated with arable fields and therefore key threats for this species are associated with changes in agricultural	No

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
			practice [Ref 5]. Most of the cudweed in this region is located inland of the path. It grows on disturbed ground and is found in places such as field margins and trackways creating some risk of trampling. New signposting on the route will encourage users to remain on the path.	
Saltmarsh and peatland invertebrates	Trampling of species	A variety of invertebrates may be trampled or have their supporting habitat damaged or destroyed by recreational activity.	No appreciable risk. The wetland invertebrates are restricted to areas of saltmarsh and peatland. The White-mantled Wainscot moth *Archanara neurica* is a rare and localised species recorded on this stretch in areas of reedbeds [Ref 6]. These areas are unattractive to walkers and will be subject to a year round exclusion of access (s25A).	No
Sand and shingle invertebrates	Trampling of species	A variety of invertebrates may be trampled or have their supporting habitat damaged or destroyed by recreational activity.	The level of risk is low for these features. Areas of sand dunes and shingle to be included in coastal margin are currently well accessed at Minsmere and Walberswick. New signposts as part of the proposal will encourage users to remain on the path.	No

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Woodland invertebrates	Trampling of species	A variety of invertebrates may be trampled or have their supporting habitat damaged or destroyed by recreational activity.	No appreciable risk. Small parcels of woodland are found within the coastal margin, however the risk of direct and indirect disturbance on the features are considered negligible.	No
Vegetated Shingle	Trampling of vegetation	Vegetated shingle can be damaged or destroyed by people walking repeatedly over the same part of it.	Areas of shingle form part of the coastal margin and be subject to new coastal access rights, although they are well accessed at Minsmere and Walberswick. Vegetated shingle plants are not mobile and are vulnerable to trampling, therefore significant effects on vegetated shingle cannot be ruled out at this stage of the assessment.	Yes
Vegetated Shingle	Loss of supporting and designated habitat through installation of access management infrastructure	Might be sensitive if there were a permanent loss of habitat as a result of the access proposals.	There will be a small loss of shingle (<1m^2) due to the installation of 4 new signposts on the vegetated shingle of Minsmere-Walberswick Heaths and Marshes SAC. There is also a proposed post and rope guide fence proposed at the Dingle marshes foreshore within and Suffolk Coast NNR to protect this habitat. These will represent a small scale loss and therefore significant effects cannot be ruled out and at this stage.	Yes

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Mudflats	Trampling of associated species and vegetation	Where the proposal increases access to mudflats, the associated species may be damaged or destroyed as a result of frequent trampling.	No appreciable risk. No mudflats are present within the coastal margin. The only area of mudflat present within the Minsmere-Walberswick Ramsar site is east of Blythburgh, approximately 2km landward of the proposed route.	No
Harbour porpoise	None identified	Not considered sensitive due to the lack of interaction between path users and the feature.	No appreciable risk. There is no interaction between users of the Coast Path and this feature.	No
SPA supporting habitat	Loss of supporting habitat through installation of access management infrastructure	Might be sensitive if there were a permanent loss of habitat as a result of the access proposals.	There will be a small loss of the following possible supporting SPA habitat due to the installation of various signposts, a fence and pedestrian gate at Easton Wood, a post and rope guide fence at the Dingle marshes foreshore and a boardwalk: • Shingle • Sand dunes and sandy areas • Cliffs and slopes • Woodland • Lowland fens/wetlands Therefore significant effects cannot be ruled out and at this stage.	Yes

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Installation of infrastructure *(taken in this assessment to include works including scrub clearance and the planting of a vegetative screen)*	Installation works for infrastructure forming part of these proposals may generate noise and visual disturbance	Bird populations may be disturbed by installation works for infrastructure.	These proposals include the replacement of a boardwalk, vegetation clearance and the planting of a natural vegetative screen at the Easton Broad OAR, the installation of new stock-proof fencing at Easton Wood, and the installation of a post and rope guide fence on the Dingle marshes foreshore. These works have the potential to disturb bird populations, therefore this potential risk cannot be ruled out at this stage.	Yes

Conclusion:

The plan or project alone is likely to have a significant effect on the following qualifying features:

- Wetland breeding bird assemblage – through disturbance.
- Breeding terns and avocet – through disturbance.
- Breeding bittern and marsh harrier – through disturbance.
- Heathland ground-nesting birds (nightjar and woodlark) – through disturbance.
- Heathland – through trampling and loss of habitat.
- Saline lagoon margins – through trampling.
- Habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland- through loss of habitat.
- Vegetated shingle – through trampling and loss of habitat.
- SPA supporting habitat - through loss of habitat.
- Installation of infrastructure- through disturbance to birds.

The plan or project alone is unlikely to have a significant effect on the following qualifying features:

- Long-staying water birds (breeding and non-breeding) – through disturbance
- Non-breeding greater white-fronted goose – through disturbance
- Non-breeding hen harrier – through disturbance- no risks identified
- Non-breeding red-throated diver – through disturbance- no risks identified
- Habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland – through trampling- no risks identified
- Plants associated with water – no risks identified
- *Hordeum marinum* – no risks identified
- *Filago lutescens* – through trampling
- Saltmarsh and peatland invertebrates – through trampling- no risks identified
- Sand and shingle invertebrates – through trampling
- Woodland invertebrates – through trampling- no risks identified
- Mudflats – through trampling- no risks identified
- Harbour porpoise – no risks identified

NOTE: The assessment for likely significant effects on the invertebrate assemblage was made in light of advice from Natural England's invertebrate specialists.

C2.2 Risk of Significant Effects in-combination with the effects from other plans and projects

The need for further assessment of the risk of in-combination effects is considered here.

Natural England considers that it is the appreciable risks of effects (from a proposed plan or project) that are not themselves considered to be significant alone which must be further assessed to determine whether they could have a combined effect significant enough to require an appropriate assessment.

Step 1 – Are there any appreciable risks from the access proposals that have been identified in C2.1 as not significant alone?

Further to the risks identified as being significant alone in C2.1 above, it is considered that there are residual and appreciable effects likely to arise from this project which have the potential to act in-combination with those from other proposed plans or projects to also become significant. These are:

- Long-staying water birds (breeding and non-breeding) – through disturbance
- Non-breeding greater white-fronted goose – through disturbance
- *Filago lutescens* – through trampling
- Sand and shingle invertebrates – through trampling

There are no other residual and appreciable risks likely to arise from this project which have the potential to act in-combination with similar risks from other proposed plans or projects to also become significant.

Step 2 – Have any combinable risks been identified for other live plans or projects?

Table 7. Review of other live plans and projects

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
Waveney District Council (part of East Suffolk Council as of 1st April 2019)	DC/19/1141/OUT Outline Application - Development of up to 220 dwellings with associated open space. Land To The West Of Copperwheat Avenue, Reydon IP18 6YD.	**No.** A shadow HRA has been produced for this project. The appropriate assessment stage has concluded that with mitigation any recreational pressure can be reduced to a level where it will not result in an impact on site integrity. This mitigation includes on-site green infrastructure, a circular walking route and benches and dog waste bins. It is not considered that the scheme will contribute to in combination impacts.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
As above	DC/18/2231/FUL Construction of 30 dwellings and new access road. Land At Fallowfields Oulton Suffolk	**No.** This development was permitted in April 2019 and has yet to be completed. During the public consultation Natural England agreed with the conclusions of the appropriate assessment that concluded no adverse effects on site integrity of the European protected sites.
As above	Minor dwelling developments	**No.** Numerous minor dwelling applications have been recently validated or recently permitted. These include small developments such as change of uses and plus one / plus two dwelling applications. All applications relevant to this in combination assessment are subject to an appropriate assessment if there is a net increase in dwellings as part of the Recreation Avoidance Management Strategy adopted as part of the Waveney Local Plan. As a result, no adverse effects have been concluded alone or in combination from these applications.
Suffolk Coastal District Council (part of East Suffolk Council as of 1st April 2019)	Emerging Suffolk Coastal Local Plan 2018-2036	**No.** The appropriate assessment associated with the plan considers the risk of recreational pressure to qualifying features of all European sites and concludes that reliance can be placed on mitigation (refs 29 and 30). A Recreational disturbance Avoidance Mitigation Strategy (RAMS) has been developed to be implemented over the planning period that incorporates SANG (suitable alternative natural greenspace) and SAMM (strategic access management and monitoring) designed to avoid effects of increased visitors and urbanisation which arise from additional housing near European sites. As a result the Appropriate Assessment concludes no adverse effect alone or in combination.
The Environment Agency	Shoreline Management Plan 7 Lowestoft Ness to Landguard Point	**No.** A Shoreline Management Plan (SMP) is a large-scale assessment of the risks associated with coastal processes which seeks to reduce these risks to people and the developed, historic and natural environments. As policies within the SMP will create adverse effects on sites of international nature conservation importance, it was necessary to prepare a Statement of Case (SoC) for Imperative Reasons of Overriding Public Interest (IROPI) for

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
		approval by the Secretary of State for Environment, Food and Rural Affairs. This provides evidence that no feasible alternatives exist and that compensatory measures are secured. Subsequently the SMP was formally adopted by the operating authorities and published in Spring 2012 [Ref 17].
Secretary of State for Business, Energy and Industrial Strategy	Sizewell C nuclear power station	**No.** The development of Sizewell C has the potential for recreational impacts on European designated sites nearby. The closure of existing walked routes along the beach frontage and Sizewell Marshes SSSI is expected to displace local users to other locations for recreation, including European designated sites. As a result, a recreational management and monitoring strategy is being devised, in partnership with relevant stakeholders. The strategy includes the provision and promotion of 'on-site' alternative greenspace within/ in close proximity to the main development site and strategic 'off-site' measures to make the designated sites more resilient to changes/increases in recreational pressures (e.g. visitor engagement, education and information, access management etc.) arising from the proposed development. We anticipate that the pending mitigation package will allow a conclusion of no adverse effect, both alone and in combination with other live plans or projects, from recreational impacts in relation to this project. We are unable to assess this project further at time of writing although will work collaboratively with developers to ensure potential environmental effects are minimised.
The Suffolk Coast and Heaths Areas of Outstanding Natural Beauty (AONB) Partnership	Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) Management Plan 2018 -23	**No.** This plan supports tourism where it is inclusive, sustainable and supports the purpose of the designation. England Coast Path proposals promote responsible access through the use of clear signage & interpretation panels where appropriate. Any limited infrastructure associated with this project will be designed with consideration to the aesthetics of the local area. Proposals will be developed with regard to the Suffolk Coast & Heaths AONB Partnership Position Statement (December 2018): England Coast Path.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
Natural England	Implementation of Coastal Access Rights from Bawdsey to Aldeburgh	**No.** Our proposals for coastal access between Bawdsey and Aldeburgh have the potential to affect the designated features although will be subject to a Habitats Regulations Assessment to determine potential risks. Any significant or combinable risks from these proposals will be identified and incorporated into the assessment.

In light of this review, we have not identified insignificant and combinable effects likely to arise from projects that have the potential to act in-combination with the access proposals.

Conclusion:

The plan or project, in combination with other plans and projects, is unlikely to have a significant effect on the following qualifying features of the European Site(s):

- Long-staying water birds (breeding and non-breeding) – through disturbance
- Non-breeding greater white-fronted goose – through disturbance
- *Filago lutescens* – through trampling
- Sand and shingle invertebrates – through trampling

C3. Overall Screening Decision for the Plan/Project

On the basis of the details submitted, Natural England has considered the plan or project under Regulation 63(1)(a) of the Habitats Regulations and made an assessment of whether it will have a likely significant effect on a European site, either alone or in combination with other plans and projects.

In light of sections C1 and C2 of this assessment above, Natural England has concluded:

As the plan or project is likely to have significant effects (or *may* have significant effects) on some or all of the qualifying features of the European Site(s) 'alone' further Habitats Regulations assessment of the project is required.

PART D: Appropriate Assessment and Conclusions on Site Integrity

D1. Scope of Appropriate Assessment

In light of the screening decision above in section C3, this section contains the Appropriate Assessment of the implications of the plan or project in view of the Conservation Objectives for the European Site(s) at risk.

The Sites and the qualifying feature for which significant effects (whether 'alone' or 'in combination') are likely or cannot be ruled out and which are initially relevant to this appropriate assessment are:

Table 8. Scope of Appropriate Assessment

Environmental pressure	Qualifying Feature(s) affected	Risk to Conservation Objectives
Disturbance to the wetland breeding bird assemblage	Avocet; gadwall; shoveler; teal; bittern; marsh harrier; bearded tit; Cetti's warbler; water rail; garganey	Disturbance to the assemblage, following changes in recreational activities as a result of the access proposal, leads to changes to abundance and diversity.
Disturbance to individual breeding bird species	Little tern; common tern; avocet; bittern; marsh harrier; nightjar; woodlark	Disturbance to nesting and feeding breeding birds, following changes in recreational activities as a result of the access proposal, leads to changes to abundance and diversity.
Loss of habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland	Reed beds *Phragmites australis*; ditches; dykes; grazing marsh; *Althaea officinalis; Sium latifolium; Sonchus palustris; Carex divisa; Elytrigia atherica saltmarsh, Phragmites australis* swamp and reed-beds, *Carex acutiformis* swamp, Lowland ditch systems, *Juncus subnodulosus - Cirsium palustre* fen meadow, *Juncus effusus / acutiflorus - Galium palustre* rush pasture, *Filipendula ulmaria - Angelica sylvestris* mire, *Cladium mariscus* swamp and sedge-beds, *Phragmites australis - Urtica dioica* tall-herb fen, *Alnus glutinosa - Urtica dioica* woodland	The loss of designated features, following installation of infrastructure as a result of the access proposal leads to the reduction in the extent and distribution of qualifying natural habitats and habitats of the qualifying species.

Environmental pressure	Qualifying Feature(s) affected	Risk to Conservation Objectives
Trampling and loss of vegetated shingle	H1220 Perennial vegetation of stony banks *Rumex crispus - Glaucium flavum* shingle community; H1210 Annual vegetation of drift line *Cakile maritima-Honkenya peploides* strandline community; *Lathyrus japonicas; Corynephorus canescens* (RDB3)	The trampling and loss of designated features, following changes in recreational activities and installation of infrastructure as a result of the access proposal leads to the reduction in the extent and distribution of qualifying natural habitats and habitats of the qualifying species.
Tramping and loss of heathland	European dry heaths; *Crassula tillaea; Calluna vulgaris – Ulex gallii*; *Calluna vulgaris - Festuca ovina*; *Erica cinerea;*	The trampling and loss of designated features, following changes in recreational activities and installation of infrastructure as a result of the access proposal leads to the reduction in the extent and distribution of qualifying natural habitats and habitats of the qualifying species.
Trampling of saline lagoon margins	Saline lagoon margins	The trampling of designated features, following changes in recreational activities as a result of the access proposal, leads to the reduction in the extent and distribution of qualifying natural habitats and habitats of the qualifying species.
Loss of SPA supporting habitat	Shingle; sand dunes and sandy areas; cliffs and slopes; woodland; lowland fens/wetlands	The loss of SPA supporting habitat, following changes in recreational activities and installation of infrastructure as a result of the access proposal leads to the indirect reduction in the abundance and distribution of the qualifying features within the site.
Installation of infrastructure	Wetland breeding bird assemblage; breeding terns and avocet; breeding bittern and marsh harrier; nightjar and woodlark	The proposals include the installation of infrastructure. On the Easton Broad OAR approximately 147m of replacement boardwalk is proposed. Within Easton Wood approximately 500m of new stock-proof fencing, and the replacement of existing stock fencing with a pedestrian gate are proposed. Along the Dingle foreshore a soft rope and post fence is proposed to guide walkers. Installation works also have the potential to cause disturbance to surrounding habitats and wildlife.

D2. Contextual statement on the current status, influences, management and condition of the European Site and those qualifying features affected by the plan or project

Disturbance to breeding bird species

As part of the Supplementary Advice on Conservation Objectives for the SPA, Natural England has set targets for all of the qualifying features in order to meet the conservation objectives for the site. Attributes within the Supplementary Advice are considered to be those which best describe the sites' ecological integrity which if preserved will achieve the Conservation Objectives.

The Suffolk coastline hosts different habitat types allowing for a diverse range of terrestrial and coastal birds to nest and feed during the breeding season. Heathland, sand and shingle banks provide nesting sites for ground nesting birds such as European nightjar, terns and avocet. Brackish marshes and reed beds provide the dense cover needed for nesting bittern and marsh harrier as well as providing feeding opportunities for all native birds.

Tern Species

Little tern are protected under Schedule 1 of the Wildlife and Countryside Act 1981 and at a European level under Annex 1 of EU Birds Directive (as amended) 2009. Little tern and common tern are regular visitors along this stretch of coastline and breed on the sand and shingle beaches at the Easton, Covehithe and Benacre Broads, Kessingland, and have attempted to breed at the Minsmere frontage. The little tern colonies found breeding along the Suffolk and Norfolk coast are functionally linked and all make up a larger 'meta-population'. Little tern follow their prey species and will nest where their food source is most abundant or nesting habitat is most suitable.

Since classification of the Minsmere-Walberswick SPA in 1991 the number of breeding pairs of little tern recorded within this designated area have decreased from 32 to 1.6 pairs (5 year mean peak count from 2014-18). However the Benacre to East Bavents SPA, approximately 2.6km to the north at its closest point, has recorded a slight increase in breeding pair numbers over the same time period, from an average of 39 pairs between 1991-1995 increasing to an average of 40 pairs between 2014-2018.

The 2015 season was Benacre's most successful breeding season for little terns with 116 pairs and an estimated 180 fledglings at this site [Ref 4].

2016 was a 'disappointing' year for breeding little tern with very few recorded breeding attempts. The only successful nest site recorded across Suffolk was within the Corporation Marshes area near Walberswick, where 2 young were fledged from a total of 7 nest sites. Elsewhere 17 pairs were recorded at Kessingland and 43 at Benacre which fledged no young [Ref 4].

Shingle adjacent to the Corporation Marshes is used regularly by little terns and nesting attempts have been recorded in four years out of the last five (2014-19), albeit in smaller numbers than at other sites such as Benacre and Kessingland.

The 2017 breeding season was more successful with 19 fledglings recorded at Kessingland from a total of 48 nesting pairs. Up to 60 little terns gathered on Benacre Broad during May but these dispersed without nesting [Ref 3].

It is likely that breeding site selection has changed in response to currently unknown factors, such as prey species availability, disturbance or predation.

Post-breeding gatherings were recorded in July 2017 at Covehithe Broad (70 individual little terns), Benacre Broad (150 little terns) and on the Minsmere scrapes (36 little terns). Autumn passage was evident throughout August and the last records of little terns along this stretch were at Kessingland on August 27th [Ref 3].

One supplementary advice target for breeding populations of little tern within the Minsmere-Walberswick SPA is to restore the population abundance to 32 breeding pairs. By contrast the equivalent at Benacre to Easton Bavents SPA is to maintain the current breeding population abundance. Little terns at both SPAs have a target to reduce disturbance caused by human activity.

The Minsmere to Walberswick Heaths and Marshes Site Improvement Plan dated October 2014 [Ref 10] notes a downward trend in population numbers of woodlark, nightjar and little tern. The reason could be linked to public access/disturbance issues, with increased corvid predation perceived as birds are flushed. A number of management actions are described including the continued wardening of beach areas to reduce disturbance to little terns and trampling impacts on vegetated shingle. In addition the RSPB hold a detailed management plan for the Minsmere Reserve.

Common terns breed in similar sand and shingle habitats to little terns although have a wider foraging range. They are common summer visitors to this stretch of coastline. Both tern species are designated features of the Outer Thames Estuary SPA, a predominantly marine SPA extending into the North Sea. Both species have a supplementary advice target to maintain the current breeding populations at 532 and 746 breeding individuals of common and little tern respectively [SPA citation, Ref 7].

The Outer Thames SPA incorporates coastal habitats including the intertidal mud and sand flats within the creeks of the Blyth estuary. In 2014 the islands within the Blyth estuary supported 3 pairs of nesting common terns which produced at least 4 fledglings [Ref 8].

The JNCC's Seabird Monitoring Programme Database records common terns occupying nests in the Minsmere area almost every year since 1969 [Ref 9].

To help manage the effects of disturbance and trampling by walkers and dogs, areas of the shingle suitable for nesting terns are fenced off during the breeding season. Areas of the Dingle and Corporation Marshes shoreline as well as the Easton, Covehithe and Benacre Broad shorelines are

fenced from the 15th March to the end of August each year. Electric fencing is surrounded by a buffer rope. In some areas triple-fencing has been installed to help prevent access by dogs into the excluded area. These roped areas are not detrimental to the landscape and are inoffensive to users, as a soft marker indicating a protective purpose.

Common terns are not qualifying features for the Minsmere-Walberswick SPA or the Benacre to Easton Bavents SPA, therefore they have not been individually assessed within this document.

Sandwich terns are not a qualifying feature within the Minsmere-Walberswick SPA and nor has JNCC's Third SPA Review (2016) put forward a recommendation to designate them [Ref 2]. However they are designated within the Alde-Ore Estuary SPA to the south and therefore are of significance within the region, and have successfully bred on the Minsmere scrapes in recent years [Ref 11, Ref 12]. At this location on the scrapes they are not at risk from trampling and will be spatially separated from path users. Therefore we do not anticipate any likelihood of significant effect to this species arising as a result of these coast path proposals.

Bittern (breeding and non-breeding)

Breeding bitterns are a qualifying feature of the Minsmere-Walberswick SPA, the Benacre to Easton Bavents SPA, and are also a main component species within the 'assemblage of breeding birds' of the Minsmere-Walberswick Ramsar designation. Minsmere-Walberswick 'has long been a national stronghold for breeding bitterns and the current breeding data shows that this continues' [Ref 13, SPA citation]. This SPA contains a significant proportion of the GB breeding population, 35% was recorded as the peak mean count from 1993-1997 [Ref 14, Natura 2000 Standard Form].

Numbers within the Minsmere-Walberswick SPA are increasing, as are their numbers across the UK. This may be due to concentrated efforts to protect the reedbeds they require to nest.

Pairs of breeding bittern have increased by 252% within this SPA, from an average of 5 breeding pairs at the time of classification in 1991 to 17.6 pairs (5 year mean peak count 2011/12- 2015/16) [Ref 13, SPA citation].

In 2016 twelve male 'boomers' were recorded in the Minsmere reserve and two active nests. In 2017 there were still twelve boomers but the number of active nests increased to eight.

The Benacre to Easton Bavents SPA also provides habitat for bitterns and at the time of classification in 1991 the site held 10% of the British population; two booming males. Since then numbers have increased by 120% to an average of 4.4 breeding pairs (2014-2018). Bitterns are most commonly heard at Easton and Benacre Broads (source: SPA supplementary advice).

SPA targets for the Benacre to Easton Bavents SPA and Minsmere-Walberswick SPA are to maintain the size of the breeding population above 2 booming males and 5 breeding pairs respectively, whilst avoiding deterioration from the current levels.

One target for both SPAs is to minimise the effects of human activity through restricting the frequency, duration and/or intensity of human disturbance and this is reflected in the Site Improvement Plan (SIP) for the Benacre to Easton Bavents SPA [Ref 15]. This identifies access issues as having the potential to disturb the SPA features. An action to investigate the impact of public disturbance is outlined, with the recommendation that future site management plans are written with regard to the results of this investigation. It is worth noting that bitterns generally nest within extensive, wet reedbeds which are not easy or attractive to access.

The Third SPA Network review [Ref 2] states that 'in the context of increasing numbers and distribution, contemporary SPA coverage is no longer sufficient for the requirements of non-breeding bittern, and additional SPA provision should be sought.' Non-breeding bittern have been recommended for designation within the Minsmere-Walberswick SPA and Benacre to Easton Bavents SPA sites.

Marsh Harrier

Marsh harriers require reedbed habitats in which to breed. They also use fresh water areas and coastal grazing marsh to feed [Ref 16, Gilbert et al. 2010]. Breeding marsh harriers are qualifying features of both the Minsmere-Walberswick SPA and the Benacre to Easton Bavents SPA.

At the time of SPA designation in 1991 the Minsmere-Walberswick SPA contained 15 breeding female marsh harriers, 20% of the British population (Ref 13, SPA citation). Since classification this figure has decreased by 16% to 12.6 breeding pairs (5 year peak mean count, 2011/12-2015/16).

At the Benacre to Easton Bavents SPA the five year mean number of pairs was 6 (1990-1994) representing more than 6% of the British population. Numbers have been increasing and in 2014 the Easton Marshes area contained 11 nest sites which between them fledged 27 young [Ref 8, Suffolk Ornithologists Group]. The 5 year mean from the period 2014-18 was 10.8 nests (SPA supplementary Advice).

Both the Minsmere-Walberswick and Benacre to Easton Bavents SPA have species targets to maintain the breeding populations, although current numbers at the former site have fallen below this target of at least 15 breeding females. At the latter site this target is at least 6 breeding females. Both SPAs have targets to maintain the connectivity with supporting habitats and to minimise human disturbance.

The Suffolk Birds Report for 2014 [Ref 8] records an increase in marsh harrier counts and productivity in comparison to the previous two years. Across Suffolk, 50 nests were counted in 2013 and 83 fledged young. In 2014 this increased to 53 nests and 104 fledged young. However Minsmere did not reflect this trend, with 7 nests and 15 fledged young in 2013 falling to 6 nests and 10 young in 2014. Breeding was confirmed at Dingle Marshes and passage movement observed at several coastal location including at Dingle Marshes and Sizewell [Ref 8, Suffolk Ornithologists Group].

The 2016 and 2017 breeding results for this species were very similar. At Minsmere 9 nests were recorded in both years with 18 and 19 young fledged respectively. At Benacre 2 pairs produced 4

and 3 young in 2016 and 2017 respectively. At Dingle Marshes a single pair were counted which produced 2 young in both years. At Easton in 2016 9 nests fledged 17 young and in 2017 10 nests fledged 14 young. In 2017 6 pairs nested at Walberswick with 12 young fledged [Refs 3 and 4].

The reedbed habitats for marsh harriers and bitterns along the Suffolk coastline are likely to be impacted by coastal erosion over the coming decades. This region is subject to high erosion rates and the barrier beaches at Benacre to Easton Bavents SPA are retreating into the saline lagoons and reedbed habitat. The Shoreline Management Plan for the area [Ref 17] states that "seawater enters the lagoons through overtopping during high tides. Natural processes will eventually lead to the loss of these features. Potential management actions would be to reduce the rate of erosion of the shingle barriers". The policy for the Benacre to Easton Broad section in the short, medium and long term is 'no active intervention'. The Benacre to Easton Bavents Site Improvement Plan (2015) [Ref 15] action 3B states to 'implement measures to address erosion of the lagoons' by 2025.

Avocets

Avocets are a fairly common resident, summer visitor and passage migrant on the coast. Breeding avocet are a qualifying feature of the Minsmere-Walberswick SPA and a main component species of the Minsmere Ramsar 'wetland bird assemblage'.

This species nest on the Minsmere scrapes and in the Dingle Marshes and Corporation Marshes, feeding around shallow pools within the freshwater marshes and saline lagoons. The broad fans of shingle at Dingle and Corporation Marshes may provide suitable habitat on their inland edge, particularly if pools are present nearby. However the majority of avocets in this area are found on the River Blyth and at Minsmere.

In 2016 the Benacre and Covehithe Broads contained three recorded breeding pairs although these produced no young. However 2017 was a more successful year as Benacre recorded 18 pairs with 7 young and Covehithe recorded 2 pairs with 5 young. Less successful were the Walberswick and Dingle Marshes sites. In 2016 Walberswick recorded 14 pairs with no young; in 2017 this decreased to 6 pairs with no young. At Dingle Marshes in 2016 8 pairs produced a single fledging, which decreased to 3 pairs and no fledglings in 2017 [Refs 3 & 4].

At Minsmere the breeding success was impacted by predation. In 2016 101 pairs produced no young due to predation by black-headed gulls. In 2017 69 pairs produced 2 young [Refs 3 & 4].

Overwintering populations were recorded at Minsmere in 2017, with a peak count of 86 in March (WeBs Data as shown in Ref 3). None are recorded along the stretch during 2016 [Ref 4].

At the time of designation in 1991 there were 47 pairs of avocet at the Minsmere-Walberswick SPA, 10.4% of the GB breeding population count [Ref 14, Natura 2000 Standard Data form]. Since classification the numbers of avocet have increased by 132.3% to 109 breeding pairs (5 year mean peak count, 2011/12 - 2015/16).

SPA targets for this species are to maintain the size of the breeding population at a level which is above 47 breeding pairs, and maintain the connectivity of the supporting habitat which is generally regarded as good. Areas including the scrape at Minsmere are intensively managed to provide conditions suitable for this species.

Whilst not designated within the Benacre to Easton Bavents SPA, two or three pairs of avocet occasionally nest there (Supplementary Advice). The Benacre to Easton Bavents SPA SIP aims to 'introduce site management measures to reduce and mitigate disturbance based on the results of [an] investigation, such as management of public access, and habitat enhancement.'

Avocet is a target species for the Suffolk Wader Strategy, 'a partnership of conservation organisations looking to enhance breeding numbers and productivity on the Suffolk Coast'. This aims to create new habitat at coast wide scale which will improve connectivity with supporting habitat beyond the Minsmere-Walberswick SPA. Areas of habitat adjacent to the SPA are also managed for conservation by the RSPB and Suffolk Wildlife Trust, offering safe passage to broader areas of supporting habitat (SPA supplementary advice, 2019).

Woodlark and Nightjar

Nightjar are a qualifying feature for both the Sandlings SPA and the Minsmere-Walberswick SPA. The latter SPA supports internationally important numbers of breeding nightjar. Nightjars nest on the ground in heathland areas.

Since designation in 1991 the numbers of nightjar breeding at the Minsmere-Walberswick SPA have decreased from 24 breeding pairs (1% of British population) to 13 individuals (5 year mean peak count 2011/12-2015/16). Since a peak count of 65 pairs in 1993, breeding nightjar have been steadily decreasing at each known site. The Sandlings SPA recorded 109 breeding males in 1992 and 81 breeding males in 2004.

The Suffolk Ornithologists' Group's 2014 report [Ref 8] notes that nine territories were found during the most recent survey of the Walberswick NNR, Dunwich Forest, Westleton Heath and Lower Blyth Valley area and the surveyor commented "this species has declined by about 80% in our area since 1999".

In 2017 7 nightjar territories were recorded at Dunwich during the breeding season and 12 territories were recorded at Minsmere [Ref 3].

A Minsmere-Walberswick SPA target is to restore the size of the breeding population to a level above 24 pairs, and the target for the Sandlings SPA is to restore to 109 breeding males. As the causes for the decline are unclear it may be difficult to implement successful site-specific conservation measures. A target is in place to restrict the frequency, duration and/ or intensity of human disturbance affecting this species. Clearing areas of heathland have been shown to increase nightjar numbers and there are plans to slowly revert Dunwich Forest to heath [Ref 18].

Woodlark is designated within the Sandlings SPA which lies at least 300m landwards of the stretch. We do not believe that these Coast Path proposals will have an impact on this SPA and therefore this feature at this site is not considered further.

Woodlark are not currently designated within the Minsmere-Walberswick SPA although the 2016 national SPA network review recommends designation for this species. 20 breeding pairs were recorded on the SPA in the 1990s rising to 30 pairs in the 2000s [Ref 2].

Woodlark territories have been recorded on Dunwich Heath and at Minsmere along this stretch in 2016 and 2017 [Refs 3 & 4].

Trampling and Loss of Habitat – Heathland

Heathland is a qualifying feature of the Minsmere-Walberswick Heaths and Marshes SAC and the Minsmere-Walberswick Ramsar sites.

High land at Minsmere, Westleton and Walberswick forms part of the East Suffolk Sandlings and is composed of infertile sands and gravels. This supports large areas of lowland heath, bracken, dry acidic grassland, woods and scrub.

Lowland heath, dominated by heather *Calluna vulgaris* but also containing bell heather *Erica cinerea* and cross-leaved heath *E. tetralix*, occupies a large continuous tract of about 400 ha at Minsmere, Dunwich and Westleton Heath with smaller areas at Walberswick [Ref 19, SAC citation document].

The SAC targets for this feature are to maintain the total extent of the dry heaths feature at 306 hectares and also the distribution and configuration of the dry heaths, including where applicable its component vegetation types, across the site.

Dunwich Heath and The Denes are areas of Open Access heathland along this stretch. Green Heath is present to the south of Covehithe but the heathland features here are all but destroyed. Prioritisation of this site for improvement is lowered due to the context of high coastal erosion rates along this coastline.

Trampling and Loss of Habitat – Vegetated Shingle

Vegetated shingle is a qualifying feature of the Minsmere-Walberswick Heaths and Marshes SAC. This is a delicate habitat and very sensitive to recreational disturbance. Trampling destroys plants and also adversely disrupts the shingle structure that allow the plants to grow.

Shingle beach forms the coastline between Walberswick and Minsmere. Despite being subject to coastal processes and human disturbance this area nevertheless supports a variety of scarce shingle plants including sea campion *Silene maritima*, small populations of sea kale *Crambe maritima*, grey hair-grass *Corynephorus canescens* and yellow horned-poppy *Glaucium flavum*. Characteristic species include *Honkenya peploides* and *Cakile maritima.* The sea pea *Lathyrus japonicus* is found on

vegetated shingle between Sizewell and Walberswick. Changes in the relative abundance of species can indicate changes in sediment size or processes.

Several targets described within the SAC supplementary advice document are set to 'restore'. The habitat is extensively adversely impacted by recreational trampling as it is a popular beach location. These targets include the aspiration to restore the extent of the annual and perennial vegetated shingle features to 59 hectares. Annual vegetation is a linear feature along the strandline and has the potential to extend to approximately 8,800m in length (Walberswick to Dunwich and Dunwich Heath to Sizewell frontages).

Trampling - Saline Lagoon Margins

Coastal/saline lagoons and margins are a qualifying feature of the Benacre to Easton Bavents SAC. The Benacre to Easton Bavents Lagoons are a series of percolation lagoons. The lagoons (the Denes, Benacre Broad, Covehithe Broad and Easton Broad) have formed behind shingle barriers as part of a geomorphologically dynamic system. Sea water enters the lagoons by percolation through the barriers or by overtopping them during storms and high spring tides. The lagoons show a wide range of salinities, from nearly fully saline in South Pool, the Denes, to extremely low salinity at Easton Broad. This range of salinity has resulted in a series of lagoonal vegetation types, including beds of narrow-leaved eelgrass *Zostera angustifolia* in fully saline or hypersaline conditions, beds of spiral tasselweed *Ruppia cirrhosa* in brackish water, and dense beds of common reed *Phragmites australis* in freshwater. The site supports a number of specialist lagoonal species [Ref 20, JNCC].

Coastal lagoons at Minsmere-Walberswick occur mainly along the landward edge of the shingle ridge between Dunwich and Walberswick at the Corporation and Dingle Marshes. Some pools within Suffolk contain rare species such as the starlet sea anemone *Nematostella vectensis* and lagoon sand shrimp *Gammarus insensibilis* [Ref 21] which are particularly vulnerable to disturbance around the lagoon margins and by people and dogs entering the lagoon pools.

Permanent loss of habitat

Loss of Habitat - Habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland

This habitat is primarily found in the Dingle and Corporation marshes area of this stretch. The Dingle Marshes reserve is a 229 acre mixture of coastal and freshwater habitats, heathland and forest. This area is a transitional habitat from freshwater through to brackish and saline areas, therefore this feature group covers a broad range of habitats and plants.

Ditches can be found across Dingle Marshes and Corporation Marshes at a range of salinities. All ditches eventually drain into the River Dunwich and the mouth of the Blyth Estuary, usually through flap sluices. These ditches provide supporting habitats for unusual aquatic invertebrates and plants, water birds, and other notable wildlife such as water voles.

The installation of infrastructure as part of the Coast Path proposals, or inappropriate access management, could adversely affect the extent and distribution of these habitats via trampling.

Loss of Habitat- SPA Supporting Areas

The installation of new infrastructure as part of the ECP may result in the permanent loss of shingle, sand dunes and sandy areas, cliffs and slopes and woodland, which are supporting habitat for SPA birds. Inappropriate management and direct or indirect impacts may affect the extent and distribution of habitats and thus may adversely affect the population and alter the distribution of birds.

Installation of Infrastructure

The installation process has the potential to disturb wildlife through a combination of factors including noise and/or visual disturbance. The installation of infrastructure has been assessed for potential disturbance within this HRA. Proposed infrastructure includes a new gate and fencing within Easton Wood, the replacement of boardwalk at the Easton Broad OAR and proposed scrub clearance and vegetative screening, and the rope and post guide fence on the Dingle foreshore.

Management Strategies Relevant to the Stretch

Suffolk Coast and Heaths Area of Outstanding Natural Beauty

The AONB was designated in 1970 and its statutory purpose is to conserve and enhance the area's natural beauty [Ref 22]. This AONB covers 155 square miles/403 square kilometres and has a population of around 23,500. The number of day visitors to the AONB is estimated to be around 3 million per annum [Ref 26].

Objectives to 2023 include:

- Adopting an 'Attract and Disperse' approach to encourage wider use of the area where there is capacity for visitors.
- Develop unique packages for wildlife enthusiasts and encourage the use of trails through interpretation and stories.

The Recreational Disturbance Avoidance & Mitigation Strategy (RAMS)

The RAMS strategy for the area [Ref 23, Hoskin et al, 2019] is a "means by which sustainable housing growth can be delivered whilst adequately protecting European wildlife sites from harm that could otherwise potentially occur because of increased recreation pressure arising from the new housing growth". "The Suffolk Coast RAMS provides a strategic and streamlined approach to mitigation measures, enabling development within the Zone of Influence" [Ref 24, RAMS FAQ].

Suffolk Wader Strategy

Established in 2015, this group is a partnership of conservation NGOs, government bodies and the private sector. Their vision is to protect breeding waders in the area to enable numbers of nationally important species including redshank, lapwing and avocet to increase. Minsmere is a key project site.

The LIFE Little Tern Project

This five year project ran from 2013 to 2018 and was funded through the EU LIFE Nature programme and the Suffolk Coast and Heaths AONB's 'Touching the Tide' project. This project aimed to improve the conservation status of the little tern in the UK through targeted action at the most important colonies. Target areas within Suffolk included the Benacre and Kessingland coastline. Project works included fencing and wardening part of Kessingland beach in areas close to the sea on shingle and about a kilometre from the busier parts of this beach. In the 2014 breeding season Kessingland nest sites fledged 15 young, and in 2017 19 fledglings were recorded from this site [Refs 8 & 3].

Productivity improved in two thirds of the sites coming under LIFE project management across England and Wales (looking at raw data) and that the LIFE Project results indicate a slowing in the population decline. As little terns are long-lived seabirds any improved productivity enables populations to slowly recover in the future if management measures are maintained [Ref 25].

Since the termination of this project the NNR staff have has had less resource to call upon. In 2019 the Benacre NNR employed one summer warden whereas in the past they have had two. This year the warden also covered Westleton Heath and the Suffolk Coast NNR so their time at Benacre was reduced.

For at least the last ten years, the Kessingland colony has settled outside the SPA boundary on Kessingland beach, but this could change in future given that colony locations are not fixed.

The BALANCE Project

This project concluded in December 2013 and included improvements to the Suffolk Coast Path, a visitor and tourism strategy for the area, 55 information boards and explorer guides for the AONB [Ref 26]. In addition the 'I'm a Good Dog Campaign' aimed to promote responsible dog ownership. This project was part funded by the European Regional Development Fund (ERDF) [Ref 27].

Existing Management Practice at Designated Sites

At the Minsmere to Walberswick SPA active management practises aim to reduce disturbance to ground nesting birds. Areas of shingle adjacent to the Dingle and Corporation marshes are seasonally fenced by Natural England reserve staff from March through to the end of August each year, and in addition this area is wardened. Wardens engage with the public to raise awareness of the sensitive wildlife and encourage positive behaviours which reduce disturbance.

Across Dunwich Heath Open Access land there is a seasonal restriction in place for dogs to be kept on short leads from 1st March to 31st July each year to protect the ground nesting birds. The National Trust have produced 'A Woof Guide to Dunwich Heath' [Ref 28] to promote responsible dog ownership. This states that there is a lead-free walk available for dog walkers and the beach is also a lead-free area.

At The Denes CROW Open Access land dogs are required to be on short leads from 1st March to 31st July to protect ground nesting birds. Signage, for example at the Benacre Ness Pumping station, informs visitors and example text reads: "Please help look after this site by following the Countryside Code and, in particular, keep dogs on leads."

From March through to the end of August Natural England reserve staff install electric and buffer fencing around ground nesting bird sites on the beach adjacent to the Easton, Covehithe and Benacre Broads. This significantly reduces the walking area available at high tide. When breeding birds are present wardens and volunteers engage with the public and ensure dogs are on leads, giving out free leads where necessary. During a period when the wardens were able to protect a large colony either 24/7 or during daylight hours, alongside volunteer effort, this practise has resulted in 100% compliance at this site.

The Easton, Covehithe and Benacre Broads together with The Denes form the Benacre National Nature Reserve (NNR).

D3. Assessment of potential adverse effects considering the plan or project 'alone'

This section considers the risks identified at the screening stage in section C and assesses whether adverse effects arising from these risks can be ruled out, having regard to the detailed design of proposals for coastal access.

In reviewing the ability of any incorporated measures to avoid harmful effects, Natural England has considered their likely effectiveness, reliability, timeliness, certainty and duration over the full lifetime of the plan or project. A precautionary view has been taken where there is doubt or uncertainty regarding these measures.

D3.1 Design of the access proposal to address possible risks – at a stretch level

In this section of the assessment we describe the key issues and pressures within the communities living along this stretch by referencing the local plans for the area. Using this contextual background increases the confidence with which we can assess the potential impacts and risks from our proposals. We describe our stretch-wide approach to the key nature conservation issues for this area which include breeding bird populations and their supporting habitats. We will also describe

our approach to the issue of small scale habitat loss from the installation of establishment works and trampling of sensitive features including vegetated shingle.

The Suffolk Coastal Local Plan describes the area as "a uniquely attractive place to live and work, combining a strong economy with a natural and built environment second to none" [Ref 29]. This plan, covering the stretch from Aldeburgh to Southwold, outlines the aim to balance ambitions for housing developments to address increasing demand alongside the protection of the precious, yet sometimes vulnerable, environment. This Plan sets a housing requirement of 582 dwellings per annum over the period 2018 – 2036 (10,476 in total), which are detailed further in local neighbourhood plans. The Leiston Neighbourhood Plan sets out proposed locations for nearly 500 properties to be built over a 15 year period. The HRA conducted for the Suffolk Coastal Local Plan has informed the Recreational disturbance Avoidance Mitigation Strategy (RAMS), which incorporates suitable mitigation measures and concludes that with these actions undertaken, no adverse effects on site integrity with occur [Ref 30].

The Waveney Local Plan [Ref 31], which covers this stretch north of Southwold, expects 10,600 new people will be present in the area by 2036 and predicts that housing demand may soon exceed supply. A good range of recreational and open spaces are available in the area although poor accessibility to some of these open spaces is a concern. Low levels of exercise and obesity are key issues. About half the district's population live in Lowestoft, within which 239 properties are at risk from coastal erosion over the next hundred years. 3,900 properties lie within an Environment Agency Flood zone. Changes in climate are likely to impact the internationally and nationally protected habitats and landscapes which furthermore are 'highly sensitive' to new development and other human factors.

Recreational pressure is a key concern for the Suffolk European wildlife sites. Collaboration between the five Suffolk local planning authorities led to the development of the Suffolk HRA Recreation Avoidance and Mitigation Strategy (RAMS) [Refs 30, 32]. This strategy has been created to provide suitable mitigation for residential growth identified within the existing local plans. Developers' contributions to the RAMS fund for projects within 13km of the protected sites allows the Appropriate Assessment for smaller developments (up to 50 dwellings) to conclude that their in-combination effect will be mitigated. Larger developments (over 50 dwellings and/or in complex cases) may require additional Suitable Alternative Natural Greenspaces (SANGs). Developments within 200m of a European site will be required to undertake an HRA to assess potential effects from factors such as noise and lighting [Refs 24, 33].

The RAMS sets out a package of measures to positively influence visitor behaviour and mitigate potential effects to European sites. These include a team of wardens/rangers, an audit of car parking in the area, the Suffolk Coasts and Heaths Dog Project and improvement to signage to raise public awareness of the sensitive wildlife.

Our objective in designing proposals for coastal access has been to ensure they do not increase the disturbance pressure affecting the site and that where possible they contribute towards efforts to manage existing and future demand for places for coastal recreation in ways that help to reduce

disturbance to designated features. To achieve this between Aldeburgh to Hopton-on-Sea, our proposals for coastal access:

- Make use of popular established paths (where these meet the key principles of alignment in line with the Coastal Access Approved scheme), for example aligning along stretches of the Suffolk Coast Path.
- Do not create new coastal access rights over intertidal mudflats and saltmarsh which provide supporting habitat for the bird and wildlife interests at the site. In practice, use of such intertidal areas for recreation is limited since they are unattractive, dangerous and inherently unsuitable for public access. A year round exclusion will apply over the Dingle and Corporation Marshes such that no new coastal access rights will be created over these areas. Maps showing the extent of excluded areas can be found within the Coastal Access Overview Report.
- Complement and reinforce the existing management practises along the stretch, for example by proposing a s26(3)(a) seasonal restriction on the areas of Easton, Covehithe and Benacre Broads which are currently seasonally fenced to prevent public disturbance of nesting sites. Current seasonal dogs to leads restrictions at Dunwich Heath will continue under a s26(3)(a) coastal access restriction.
- Contribute to raising awareness and encouraging appropriate visitor behaviour in areas of environmental importance by installing new information panels at key points along the stretch. These will reinforce messages resulting from the existing RAMS project and display information about the sensitive features.

The project team see an opportunity to influence both existing and new path users in a positive way by explaining the importance of the area for wildlife, the risk of disturbance and how to avoid it. These project proposals aim to augment existing management practice in place along the stretch and we have worked closely with reserve staff to ensure our alignment is sensitive to wildlife designations.

Where new access has been proposed particular care has been taken to minimise disturbance, through the installation of vegetation screening where appropriate and consideration for all signage to encourage users to remain on the clearly marked path.

Care has been taken to minimise disturbance to vegetated shingle through consideration as to how usage of the coastal margin may change, and where appropriate suggesting direct routes to the water's edge to prevent unnecessary trampling. Signage will encourage walkers to avoid the beach frontage, however should they choose to do so at low tide they will be asked to walk below the level of the strandline to reduce trampling of shingle. Access to the vegetated shingle at locations including close to the Dunwich Beach car park is high and is expected to remain so. The provision of designated access points is outlined as a method of on-site management of visitors to reduce visitor disturbance within published Marine Recreation guidance [Ref 34, NE Information Note]. Access routes to the beach and/or water are noted as a key erosive pressure on sand dune and mud flat habitats [Ref 35].

Permanent loss of habitat as a consequence of establishment work has been considered. Simple waymarking signs, advisory signs and interpretation boards are proposed within the European

designated sites, along with a single pedestrian gate, a fence and screen and a replacement boardwalk. Where possible, all installation will be installed on the path itself and therefore minimise loss to the surrounding habitats.

Establishment works to make the trail fit for use, including any special measures that have been identified as necessary to protect the environment, will be carried out before the new public rights come into force on this stretch. Details of the works to be carried out and the estimated cost are provided in the access proposals. Works on the ground to implement the proposals will be subject to any further necessary consents being obtained, including to undertake operations on a SSSI. Natural England will provide further advice to the local authority carrying out the work as necessary.

Table 9. Establishment Works – Mitigation Measures

Establishment Factor	Mitigation Measures
Timing of works	• Local authority to plan schedule with natural England to limit disturbance risk. • Significant pieces of infrastructure and/or works must be installed during the autumn and winter months to avoid potential disturbance to nesting birds. This infrastructure includes: the replacement boardwalk, new vegetative screening and vegetation clearance at the Easton Broad OAR, the guide fencing at the Dingle shingle and works within Easton Wood. • Other infrastructure (eg waymarkers, advisory boards and interpretation panels) to be installed on or near to designated sites carry a recommendation to be installed during the autumn and winter months. • Should any infrastructure, for example interpretation panels, be affected by site specific factors which could result in unusually high noise and/or other disturbance outputs during construction, a conservative approach should be adopted and the installation completed during the autumn and winter months. • During installation any operators working within 200 metres of, and visible to, roost sites will stop during the 2 hours before and after high tide whenever possible. • Operator to limit construction activities to daylight hours at all times of year. • Should there be an extended period of cold weather with temperatures below freezing for 14 days works will cease

Site design	• Operator to design access routes, storage areas and site facilities to minimise disturbance impacts. • Operator to conduct operations out of sight of roosting and feeding areas for birds where possible.
Method	• Operator to use hand tools where practicable. • Operator to avoid use of machinery working within 200 metres of, and visible to, roost sites during the 2 hours before and after high tide whenever possible.

D3.2 Design of the access proposal to address possible risks – at a local level

In this part of the assessment we consider key locations along the coast between Aldeburgh and Hopton-on-Sea where establishing the England Coast Path and associated coastal access rights might impact on qualifying Features of a European site. We explain how the detailed design of our proposals at these locations takes account of possible risks.

The relationship between the locations referred to in this assessment and the corresponding Coastal Access Reports in which the access proposal is described is shown in the table below.

Table 10. Summary of key locations

Location	Relevant Alignment Section(s)	Disturbance to the wetland breeding bird assemblage	Disturbance to individual breeding bird species	Loss of habitat and species associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland	Trampling and loss of vegetated shingle	Tramping and loss of heathland	Trampling of saline lagoon margins	Loss of SPA supporting habitat	Disturbance to birds resulting from the installation of infrastructure
Minsmere Nature Reserve	AHS-2-S008 to AHS-2-S018	✓	✓		✓			✓	
Dunwich Heath	AHS-2-S019 to AHS-2-S030		✓		✓	✓		✓	
Dingle and Corporation Marshes and Surroundings Marshes	AHS-2-S054 to AHS-3-S036	✓	✓	✓	✓		✓	✓	✓
Easton Broad OAR	AHS-4-OA002 to AHS-4-OA009		✓					✓	✓
Easton Wood	AHS-4-S016		✓					✓	✓
Easton, Covehithe & Benacre Broads	AHS-4-S012 to AHS-4-S028		✓				✓	✓	
The Denes & Kessingland Beach	AHS-4-S030 to AHS-4-S072		✓				✓	✓	

Detailed assessment at key locations

D3.2A Minsmere Nature Reserve

Current Situation

Access Baseline

Levels of access along this section are currently lower than that at Dunwich Car Park, increasing again towards Sizewell to the south which is popular with dog walkers.

The proposed route is on an existing well-walked PROW which forms part of the Suffolk Coast Path. It is seawards of the fenced area of the Minsmere RSPB reserve and in addition a ditch prevents undue ingress onto the reserve. Seawards of this path is a more exposed walked route along the top of the dunes. A PROW from the west joins the Coast Path at the junction between AHS-2-S010 and S011.

The proposed route alignment adjacent to the Minsmere RSPB reserve is well accessed and due to the levels of existing access we only anticipate a small relative increase in use of the trail with negligible increase in use of the coastal margin.

Many visitors tend to use the PROW on which we propose to align the Coast Path as part of a circular route around the nature reserve, whilst others walk northwards to the National Trust visitor centre and café at Dunwich Heath. Visitors are likely to continue their current pattern of use to explore and travel between the two sites.

The RSPB reserve contains a visitor centre and café and attracts high numbers of visits a year. During filming of the BBC's "Springwatch" programme in 2014 the number of visits increased to 1,000 visits a day [Ref 36]. VisitEngland recorded that over 123,000 visits were made to RSPB Minsmere in 2015 and 2016 [Ref 37].

The JNCC data form for the Minsmere site [Ref 14] states that outdoor sports, leisure activities and recreational activities have the potential to negatively impact this designated site. 'Improved access to site' and 'interpretive centres' have the potential to positively impact the site. Following an assessment under the Habitats Regulation 2017 it was determined that a weekly 5km 'Park Run' using the Minsmere frontage would not cause any likely significant effect on the overall integrity of the site. This is subject to a 1 year consent subject to monitoring by RSPB.

Existing interpretation boards aim to inform and educate visitors about the sensitivities of the area and these will remain in place after establishment of the Coast Path.

The Suffolk Coastal RAMS HRA has identified that additional interpretation material on the periphery of the heavily visited RSPB reserve should be a priority mitigation measure. *"It is felt that better interpretation would raise awareness of the wildlife value of the peripheral areas outside the main*

wetland reserve areas and increase understanding of the ecological connections between these and the wider surrounding habitat." [Ref 23, section 8.46]

Some of the suggested site specific mitigation measures [Ref 23, section 8.48] include:

- *"Developing new routes, allowing visitors to do circular walks or enhancing access while focussing the access away from sensitive locations*
- *Infrastructure such as signage, screening, replanting, gates, stiles or fencing to help manage access at particular locations (e.g. fencing around little tern breeding areas)*
- *New infrastructure to enhance access at locations away from European sites, e.g. dog agility courses, fenced areas for dogs, new Public Rights of Way, improvements to existing PROW away from sensitive areas.*
- *Promotion of walks within European sites to demonstrate exemplar management of visitors"*

Visitor management strategies must be designed within the context of high coastal erosion rates that will gradually impact visitor behaviour. The Environment Agency's 2009 flood risk management strategy for the area [Ref 38] stated that partial managed realignment of the defences in the north of the site would provide the most sustainable solution in the short term. This would allow vegetated shingle to move inland naturally as some shingle banks breach. Improvements to Coney Hill Cross Bank (aka the north wall), which runs west to east across the reserve area have since been completed in order to protect the Minsmere RSPB reserve from saltwater incursion whilst natural processes continue to the north of the site.

Environmental Baseline

The Minsmere RSPB reserve covers about 2,500 acres of land and contains one of the largest reedbeds in Britain. Its size and range of habitats support many birds with 342 species recorded as of 2017, and 126 birds confirmed to have bred on the reserve [Ref 39]. The reserve is intensively managed to promote bird populations.

In 2019 little terns attempted to nest within the Minsmere RSPB reserve for the first time since 2007. Unlike previous attempts along the busy shoreline, they chose to nest on the Minsmere scrapes, an area not at risk of trampling by walkers and dogs. 10 pairs nested and fledged 7 young. RSBP staff constructed shelters to protect the chicks from predation and the elements [Ref 40].

Common terns nest within the Minsmere RSPB reserve and in 2017 76 pairs were counted which hatched 58 fledglings [Ref 3]. The number of pairs was down from 158 the year previously, although is an increase from the thirteen pairs recorded in 2014 (these fledged no young) [Ref 8].

Bitterns are a key attraction at the RSPB reserve. Their numbers are increasing within the reserve although they remain reliant on their reedbed habitat and therefore are vulnerable to events which disturb this.

Avocet breed at the Minsmere RSPB reserve using open bare ground close to waterbodies to nest. The Minsmere to Walberswick Heaths and Marshes Site Improvement Plan states that public

access/disturbance is a prioritised issue at the site for avocet [Ref 10]. One of the SPA targets for this species is to restrict the frequency, duration and/or intensity of human disturbance. Public access on the RSPB Reserve is carefully controlled and habitat management largely undertaken at a time that will least affect the birds (SPA supplementary advice, 2019).

Detailed design and assessment of risk

The project team predict a small relative increase in the use of the trail, once it is formally badged as the England Coast Path, mainly in the peak summer period (May-August). There will be negligible increase in the use of the coastal margin; people will continue to use it as they currently do to access the intertidal area.

Disturbance to the wetland breeding birds assemblage

The existing PROW along the fenceline seawards of the reserve has been chosen as opposed to the route along the top of the dunes. Whilst this brings walkers closer to the reserve the birds are habituated to this path being used by walkers and dogs. The fenceline prevents access into the reserve. Using this path will reduce the effect of 'skylining', the silhouetting of walkers against the sky, that the dune ridge route would exacerbate. Skylining has been found to double disturbance distances for birds from walkers/cyclists using the shorefront [Ref 41, section 1.23]. Discussions with reserve managers informed our determination of the most suitable alignment.

Disturbance to individual breeding bird species (Little tern; avocet; bittern; marsh harrier; nightjar, woodlark)

The points above will apply to these listed individual bird species ensuring minimum disturbance from path users.

The shingle habitat along the Minsmere frontage provides potentially suitable habitat for ground nesting birds and historically they have attempted to nest along this busy shoreline. Use of the route inland of the dunes will increase the spatial separation between walkers and birds. In 2019 little terns chose to nest on the Minsmere scrapes where they were not at risk from trampling.

Trampling and loss of vegetated shingle

Encouraging access along the clearly waymarked trail will limit footfall across the coastal margin to some extent by channelling users along the main pathway. This will minimise the impact on vegetated shingle present. In addition the proposals include some re-surfacing works on sections of path (eg AHS-2-S018) prone to becoming boggy, to create a convenient walking trail.

Interpretation panels will inform users of the wildlife sensitivities of the area and encourage them to behave appropriately, in line with the RAMS HRA recommendations.

An existing interpretation panel at Minsmere Sluice will remain in place (this is between AHS-2-S010 and S011). This is seen by visitors to the reserve who have walked eastwards towards the sea parallel to the Minsmere New Cut and an exit point from the reserve allows walkers access to the water. Walkers were observed to cross the shingle ridge at this location in order to gain views of the sea, to the detriment of vegetated shingle across a limited area. This existing recreational pressure is not likely to significantly increase with the establishment of the coast path. Once the interpretation panel is due for replacement Natural England have recommended that the updated content include information for visitors about the vegetated shingle and a request to avoid walking this habitat whenever possible.

A new interpretation board is proposed for the route between the Coastguard Cottages and the Minsmere frontage, at the north end of AHS-2-S022. This will advise walkers of the sensitivities of vegetated shingle and request that walkers avoid this habitat. This will also be of relevance to those walkers who wish to turn northwards towards the Minsmere cliffs, just north of the Coastguard Cottages, upon reaching the waterfront. The National Trust have fenced an area of shingle here for observation, these proposals will not affect this study.

Loss of supporting SPA habitat

Installation of waymarkers will represent a small scale loss of habitat although these will be installed on the path and therefore we do not anticipate that these will result in any significant loss of SPA supporting habitat.

Conclusion

Natural England have considered possible risks to qualifying Features at this location and consider that no new significant negative impacts will result from these proposals. Establishing a well maintained and clearly waymarked Coast Path will aid the long-term management of visitors to the site.

D3.2B Dunwich Heath

Current situation

Access baseline

Dunwich Heath is an area of Open Access land managed by the National Trust, with facilities including a tearoom, gift shop and parking. Levels of current access are high around the car park area and for about 0.75km northwards, dropping to medium just south of Greyfriars wood.

As this is one of the three 'honeypot' sites of the area, along with Minsmere and Sizewell, we anticipate a small relative increase in path users as a result of the Coast Path establishment. Due to the difficult walking conditions on the shingle we anticipate that most walkers will remain on the trail, and therefore predict a negligible increase in use of the coastal margin.

The proposed route northwards from Minsmere to the Coastguard cottages at AHS-2-S022 is along a well demarked PROW maintained by the National Trust. The alignment passes seaward of the Coastguard Cottages and follows a well-worn track through the heathland, before crossing Minsmere Road and continuing northwards parallel with the road at AHS-2-S028 until leaving the Open Access heathland. An existing interpretation panel at AHS-2-S030 is already in place along this stretch of path.

Environmental Baseline

The proposed route alignment here crosses heathland which is designated as a SAC, SPA and Ramsar site.

Dunwich Heath has existing Open Access rights under CROW and a national restriction requiring visitors to keep dogs on short leads from 1st March to 31st July each year to protect ground nesting birds from disturbance.

Nightjar numbers have been decreasing across the Minsmere-Walberswick SPA since designation. Since a peak count of 65 pairs in 1993, breeding nightjar have been steadily decreasing at each known site. The heathland is home to other breeding birds including woodlark and stone curlew [Ref 42].

Detailed design and assessment of risk

It is expected that level of usage in this area will remain high with some walkers travelling between the twin attractions of the Minsmere RSPB reserve and the Dunwich Heath National Trust facilities.

Disturbance to individual breeding bird species (nightjar and woodlark)

The existing seasonal dogs on leads restriction for Dunwich Heath will be brought under coastal access rights through the implementation of a s26(3)(a) restriction covering the trail and its associated seaward and landward margin. In effect this will result in no change for walkers using Dunwich Heath and ground nesting birds will continue to be protected from disturbance from dogs.

A new advisory board at AHS-2-S029 will inform walkers travelling southwards about this access restriction. It will also include information about photographing wildlife in a responsible manner in order to reduce the disturbance impact on birds.

The route will be clearly waymarked to the north of the Coastguard Cottages to channel walkers along a single pathway.

Trampling and loss of heathland

These coast path proposals seek to formalise access on the currently walked routes from the Coastguard Cottages northwards. Care has been taken to focus users on to the well-worn existing routes across Dunwich Heath through effective waymarking and these proposals include additional waymarkers at the Coastguard Cottages and the Minsmere Road crossing point.

Trampling and loss of vegetated shingle

Information for visitors is to be included in a single interpretation panel just south of the Coastguard Cottages at AHS-2-S022 which will be passed by walkers accessing the shingle from the car park here. If walkers choose to walk along the beachfront they will be encouraged to walk below the strandline wherever possible.

Loss of SPA supporting habitat

As at Minsmere, infrastructure proposed here is in the form of simple waymarking roundels that will be installed on the path and therefore result in trivial loss of SPA supporting habitat.

Conclusion

Given the existing high usage of the area, the well maintained nature of existing pathways that will be complemented by England Coast Path waymarking and the s26(3)(a) restriction across Dunwich Heath, we consider that no new significant disturbance to birds, trampling of heathland or vegetated shingle will occur as a result of these proposals.

D3.2C Dingle and Corporation Marshes & Surrounding Marshland

Current situation

Access Baseline

Levels of access are high at Dunwich and Walberswick and decrease to medium towards the midpoint between these two settlements.

At the Dunwich Beach car park, at the southern end of the marshes, access is high with visitor facilities and a café. Visitors have been observed to climb the shingle ridge adjacent to the car park to enjoy the sea views, returning after having only walked a short distance. Those wishing to walk further northwards often choose the strip of firmer ground between the shingle ridge and the marshland. After about 300m this firmer ground narrows, at which point many walkers choose to turn back. They either retrace their steps, or climb onto the shingle ridge and return along the shingle, although the intertidal zone when available provides easier walking terrain.

Some opt to continue northwards to complete the 4.5mile circular walk around the marshes. This route is promoted on an interpretation board at the car park [Ref 43].

To avoid a long stretch of shingle walking, the Coast Path aligns landwards of the marshes. The vast majority of this part of the alignment is along existing rights of way and follows the Suffolk Coast Path. Where the route deviates slightly from mapped PROWs (such as at AHS-3-S033 to AHS-3-S036) this is to align along the worn routes that have developed on the ground.

The path follows a track suitable for vehicular access northwards to Sandymount Covert which is fenced either side. Gates which are often padlocked deter access to the marshes.

Environmental Baseline

The Dingle and Corporation Marshes are designated as part of the Minsmere-Walberswick SPA and Ramsar, as are the Westwood marshes to the west. The Corporation Marshes are also designated as a part of the Minsmere Heaths and Marshes SAC. The Dingle Marshes, Corporation Marshes and surrounding marshes form part of the Suffolk Coast NNR.

These areas contain a network of deep ditches, channels and pools, which are obscured in places by vegetation. This makes the terrain difficult to traverse and unsuitable for public access. Freshwater input from the Dunwich River combines with saline influences via percolation, overtopping and occasional seawater incursion. This brackish transitional environment supports a variety of ecological niches.

Every five years transect studies are conducted by Natural England, the Suffolk Wildlife Trust and the RSPB to record the plant communities present and assess change. In 2010 a total of 20 plant communities were recorded including saltmarsh, dune, swamp and grassland communities of high ecological importance. *Phragmites australis* is present throughout all communities and *Spergularia media* and other saltmarsh plants frequently occur within the grassland communities. The report concludes that the area is likely to evolve into an entirely reedbed and saltmarsh area without continued protection from the sea [Ref 44].

The marshes include a mixture of coastal and freshwater habitats and provides an important feeding and nesting ground for many bird species, including bittern. Given their reclusive nature and preference for deep stands of reed they are unlikely to be impacted by the proposals and so the potential for disturbance is low. Similarly, bearded tit usually nest and stay concealed in dense reed beds; they are probably less prone to disturbance than many other bird species. Marsh harrier breed within the Dingle Marshes and nearby Westwood Marshes utilising areas of reedbed.

Teal breed on this site preferring freshwater habitat with some tall vegetation, whilst shoveler prefer to nest in grassy areas away from open water. Breeding gadwall use Dingle Marshes and there are a small number of breeding pairs supplementing the main population at Minsmere. They possibly also breed at Corporation Marshes and Westwood Marshes, favouring marshy grassland with dense fringing vegetation.

The marshes also provide habitat for avocet. In 2016 8 nesting pairs were recorded, which fledged 1 young. The Walberswick area (which includes the Corporation marshes) recorded 14 pairs at two locations, but produced no young [Ref 4, Suffolk Ornithologists' Group]. In 2017 Dingle recorded 3 nesting pairs with no young fledged, and the Walberswick area recorded 6 pairs at 2 locations with no young fledged [Ref 3, Suffolk Ornithologists' Group].

Seawards of the Dingle Marshes, the shingle provides good habitat for ground nesting birds including little tern and efforts are made by NNR staff to fence and warden these sites each year.

This shingle was historically bulldozed by the Environment Agency to form a barrier, which offered limited protection to the marshes from seawater incursion. However it has become increasingly difficult to repair this barrier after storms to maintain an effective flood defence [Ref 45]. A 2007 storm breached a 2km section and the 2013 tidal incursion caused further damage. The management practise of bulldozing has been deemed unsustainable and has now ceased (Ref 45, Cali et al 2008). Since then the barrier has become wider with some larger 'fans' of shingle extending inland, which provide good habitat for nesting birds including avocet, ringed plover, occasional little tern, oystercatcher and redshank (Suffolk Wildlife Trust, pers comm [Ref 47]).

Detailed Design and assessment of risk

Due to the high levels of existing access at Walberswick and near to the Dunwich Beach car park we anticipate a small increase in use of the trail and a negligible increase in use of the coastal margin.

Disturbance to the wetland breeding birds assemblage (avocet; gadwall; shoveler; teal; bittern; marsh harrier; bearded tit)

Between AHS-3-S003 and AHS-3-S004 the path follows the existing PROW and is separated from the designated sites by at least 100m. The path is fenced either side with no attractors into the seawards coastal margin, and field entrances are blocked by padlocked gates. Partway along AHS-3-S004 the path enters the Minsmere-Walberswick SPA although continues to be fenced and on an existing well-walked path.

A s25A year-round access exclusion will be applied over large parts of the coastal margin which are unsuitable for public access. Access to saltmarsh habitat is considered to be uncommon in general, even without specific management practices [Ref 48].

The fenced areas of shingle on which little terns may choose to nest will be subject to a s26(3)(a) restriction. This will prevent public access onto the areas fenced for little terns 1st April to 31st August, complementing existing management practise.

Disturbance to individual breeding bird species (little tern; avocet; bittern; marsh harrier)

Given the nature of the alignment here on a well-used path landwards of the marshes, the unsuitability of much of the coastal margin for public access (covered by an s25A access exclusion)

and the proposed s26(3)(a) restriction along the shingle, it is considered that any residual risks to breeding bird species at this location will be minimal.

Loss of habitat and species associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland

The marshes are unsuitable for public access and therefore the majority of the seawards coastal margin is covered by a year round s25A access exclusion. In addition, walkers cannot readily access the coastal margin from the path. It is therefore considered that this habitat will not be impacted by these proposals.

Trampling and loss of vegetated shingle

The areas of shingle that are fenced and wardened seasonally for their nesting bird interest will be brought under coastal access rights via a seasonal s26(3)(a) restriction to prevent public access from the fenced areas from the 1st April to 31st August each year. Whilst access to the shingle at the Dunwich Beach car park and at Walberswick is high, the main path offers no route across the marshland towards the beach. Therefore use of the shingle areas is unlikely to change from its existing levels with the establishment of the England Coast Path.

At the junction between AHS-3-S034 and S035, when travelling northwards, the path climbs up onto a shingle ridge to continue along it. At this location several walked routes up the ridge have been worn by walkers as evidenced by an absence of the surrounding vegetated shingle. In order that these Coast Path proposals do not exacerbate this issue we propose two waymarking roundels to channel walkers onto a single route. Each of these roundels will have an advisory plaque requesting that walkers remain on the main path to limit disturbance to the vegetated shingle.

As described in the access baseline section above, about 300m north of the car park the strip of firmer ground becomes narrower and this often encourages walkers to turn back. However some walkers wish to continue northwards and at this point they must either walk on the shingle ridge or cross this ridge to walk close to the intertidal. To help protect the vegetated shingle beyond this point, which currently experiences lower recreational pressure, we propose to install a soft post and rope guide fence of approximately 20m to 30m length, which will guide people towards the intertidal (please see Appendix 1, Map 2). An advisory board will be added to one of the posts which will inform walkers of the sensitive nature of the shingle habitat and request that they avoid walking on this to prevent recreational damage to the vegetated shingle habitats. This guide fence will be installed to allow safe passage even at high tide.

Trampling of saline lagoon margins

Saline lagoon features within the marshland are subject to a s25A access exclusion. The PROW is fenced on either side from Dunwich to Sandymount Covert and there are no sea views or other attractors within the seawards coastal margin. We conclude that these proposals present no additional risk to this feature.

Loss of SPA supporting habitat

Waymarkers will be installed on the path and therefore we do not anticipate that these will result in any significant loss of SPA supporting habitat.

Disturbance to breeding birds through the installation of infrastructure

Installation of the post and rope guide fence will be undertaken during the winter months and thereby avoid any potential disturbance to breeding birds. Please see Table 9 for further details.

Conclusion

It is possible that the establishment of the England Coast Path will see an increase in the number of visitors although this is likely to be a small relative increase given the existing use of the area, due to good visitor facilities in the vicinity. The Suffolk Coasts & Heaths AONB have plans to further promote routes around the Marshes.

Given the nature of the walked alignment here and the restrictions and exclusions proposed within the seawards coastal margin, we do not consider any significant negative impacts to qualifying features will arise as a result of these proposals.

D3.2D Easton Broad OAR

Current situation

Access Baseline

The main route along the Easton Broad foreshore can become impassable during very high tides or flooding events. Therefore an option alternative route (OAR) is proposed landwards of Easton Broad (please see Appendix 1, Map 3).

To the south of Pottersbridge Marshes, from AHS-4-OA001 to AHS-4-OA003, the OAR will establish access along a field boundary with no existing formal rights of access. Current levels of use are therefore negligible. Views across the marshes are currently possible from this location.

The proposed alignment joins the Lowestoft Road where it routes along a grassy verge of variable width for approximately 340m (AHS-4-OA004). The road is class B with a 60mph limit. Road signs are proposed advising vehicles to slow down for walkers' safety.

On the north side of the marshes, from AHS-4-OA005 to OA006, the alignment is along an existing PROW although this has been impassable since 2013 and closed by the access authority since 2016, following damage to the boardwalk due to a tidal surge. This boardwalk will be replaced as part of these proposals.

Sections AHS-4-OA007 to OA009 then deviate from this existing PROW which is impassable due to vegetation cover and periodic flooding. This flooding is caused by sediment build-up at a drainage outflow pipe at Easton Broad which prevents adequate drainage of the marsh into the sea. The Environment Agency clear these blockages once reported. The route sections will align roughly parallel to and northwards of this PROW and will form new access through this area.

OARs are also proposed around the Covehithe and Benacre Broads. These are aligned along existing access routes with the exception of sections AHS-4-OA014 to OA016 which are aligned along a current trackway.

Environmental Baseline

This Easton Broad OAR south of Pottersbridge Marshes runs immediately adjacent to marshland designated as part of the Benacre to Easton Bavents SPA and Benacre to Easton Bavents Lagoons SAC. This area is known for its marsh harrier nesting sites. BTO BirdTrack data records marsh harriers at Easton Broads in 2019, 2018, 2014, 2012 and 2011 [Ref 49]. Water rail and Cetti's warbler also nest at this location. Bittern use this site and the marshes provide good habitat for overwintering ducks.

Detailed Design and assessment of risk

This OAR will be open for legal use as part of the Coast Path only at times when the main route is impassable. Consideration has been taken to ensure that walkers only use it as such. Taking the factors below into account we anticipate a small increase in use of this trail after establishment.

OARs do not have associated coastal margin and therefore we are not proposing any new access rights across the marshlands seawards of the path.

The establishment of this OAR will create new legal access with trail improvements such as waymarkers along a route which may be drier than the main trail, promoting its use. However, it should be noted that:

- The route is only legally available from the trail when the main trail is unsuitable. This varies in duration but could range from several weeks during a tidal incursion or flooding event, to just a couple of hours during a high spring tide in winter.
- The main trail is a more direct walking route. Using the OAR to cover the distance from AHS-4-S012 to AHS-4-S014 adds 2.2km.
- The OAR takes people away from the coastal environment which is a key reason for walking stretches of this National Trail.
- Parking facilities are located over 2km away in Covehithe and this stretch is not close to any other visitor facilities. The nearest settlement is Reydon approximately 1km to the south along Lowestoft road.

- Hardstanding off Lowestoft Road at the Entrance to the Environment Agency compound (where AHS-4-OA003 meets AHS-4-OA004) can only accommodate a couple of vehicles at most and is not a formal parking area.
- Easton Lane has the capacity for 6-8 cars although parking is discouraged (and may no longer be possible). This is 500m to the south.
- Part of the OAR is along the Lowestoft road, a class B road with a 60mph limit which is not likely to attract walkers. A verge of variable width is available.
- Natural England will ask the Ordnance Survey not to depict the OAR on their mapping products to help ensure it is only used by walkers who have found the main trail to be impassable.

Disturbance to individual breeding bird species: bittern (breeding and non-breeding); marsh harrier

The small increase in visitors has the potential to disturb birds within the Pottersbridge and Easton marshes which lie seawards of the path. Whilst no public access is proposed across the marshland, noise disturbance from walkers and dogs using the path could be a potential issue. The pleasant views across the marshes towards the sea may exacerbate this by encouraging walkers to spend longer at this site, and develop regular patterns of use along this trail at times when the main route is passable.

Part of this OAR will be on new legal access, part on a PROW which has been closed since 2016, and part on a new route parallel to the PROW, therefore wildlife will not be accustomed to walkers.

An indirect risk to the breeding success of the bird population is possible through disturbance of this population over winter, through impacts on feeding and other activities. Over winter the main trail is more likely to become impassable and therefore a higher percentage of walkers may be required to use this OAR (although the total number of walkers is likely to be lower than in summer). It is necessary to consider the impacts of these proposals year-round.

Consideration has been given to reducing use of this OAR through preferential promotion of the main trail. As indicated above, Natural England will ask the Ordnance Survey not to depict this OAR on any of their map products.

An advisory board at the southern end of the OAR at AHS-4-OA001 will inform walkers on the main trail about the correct use of this path, ie that this OAR is only available when the main trail is unsuitable due to flooding, tidal action, coastal erosion or other geomorphological processes. A roundel will also be present to indicate that the main trail continues along the foreshore.

The correct use of the OAR will also be described on an advisory sign along the main trail near the Easton Broad outflow pipe (AHS-4-S013). This is beyond the decision point between the OAR and the main trail when travelling northwards, requiring walkers to double back to the OAR if they feel unable to travel on the main route. Similarly, walkers travelling southwards will see the advisory sign at AHS-4-S015 and double-back to the OAR if necessary. Walkers who have travelled southwards on the OAR landwards of Covehithe are expected to preferentially re-join the main route at AHS-4-S016.

On the OAR itself, an advisory sign describing the legal use of this path will be installed on the gate at the entrance to the Environment Agency Compound (AHS-4-OA003).

The signage above (ie AHS-4-OA001, AHS-4-S013, AHS-4-OA003) will in addition remind and encourage walkers to keep their dogs under control around the marsh area.

Advisory boards informing walkers that dogs should be kept under control are also proposed to the south of Easton Wood (AHS-4-S015) and at the north east of Easton Wood (AHS-4-S016). These latter signs will primarily benefit the wildlife in Easton Wood but it will also inform walkers in the vicinity that wildlife interests are present that require dogs to be kept under control.

Two existing interpretation panels are already in place around the Easton Broad OAR and these are located at AHS-4-OA005, where the OAR leaves the Lowestoft road, and at AHS-4-OA11. These inform walkers about responsible dog ownership. The former interpretation panel advises that dogs are kept on leads across Pottersbridge marshes; at this location dogs may be at risk of falling from the boardwalk into the wetland area below.

Natural vegetative screening will be planted along the route to fill in the gaps in vegetation along AHS-4-OA002 and AHS-4-OA003 to create a continual screen between the path and the marshes. This will comprise naturally occurring species such as gorse, bramble, hawthorn and willow whips and reduce views across the marshes. Monitoring in the year following establishment will identify and subsequently rectify any areas of failing vegetation to ensure an effective screen is in place.

North of the marshes at AHS-4-OA005 there is no need for additional screening as the proposed OAR lies behind mature vegetation.

The signage and screening proposed at this site will have effect year-round.

Loss of SPA supporting habitat

The installation of waymarkers will represent a small scale loss of habitat, although these will be installed on the path and therefore we do not anticipate that these will result in any significant loss of SPA supporting habitat.

146.9m of continuous boardwalk is proposed along this OAR, across two sections of the alignment. 26.3m is proposed along AHS-4-OA006 and 120.6m along AHS-4-OA007. This will replace existing boardwalk, therefore no additional loss of SPA habitat will arise as a result of these proposals.

Scrub and vegetation clearance is required to form a passable route along sections AHS-4-OA007 to AHS-4-OA009 and to a lesser extent along the closed PROW sections at AHS-4-OA005 to AHS-4-OA006. Scrub will be cleared to a width which allows two walkers to pass. Section AHS-4-OA007, approximately 120m, lies within the SPA designated site. Sections AHS-4-OA008 and AHS-4-OA009 will also be cleared, with approximately 250m of this being just within the SPA and SAC boundary. Further east along AHS-4-OA009 the clearance will take place parallel to the designated sites' boundaries.

The Benacre to Easton Bavents SPA qualifying features are breeding little tern, marsh harrier and bittern. Little tern nest on shingle areas and therefore are not considered to be impacted by this scrub clearance. The marsh harrier and bittern use the marshland area within Easton Broad to nest and therefore will not be impacted. The Benacre to Easton Bavents Lagoons SAC is designated for its coastal lagoon features which will not be impacted.

Disturbance resulting from the installation of infrastructure

The boardwalk is to be replaced over winter to prevent disturbance to breeding birds, similarly the vegetation clearance and planting of the vegetative screen should also be completed over the winter months.

The Easton Marshes cover a wide area which enables birds who may become startled by the construction works to retreat to a suitable distance without leaving the marshland habitat. The vegetated screening will also be planted during the winter months. Please see Table 9 for further details.

The narrow-mouthed whorl snail *Vertigo angustior* is present in this area of marshland. This is an S41 protected species and also a named invertebrate within the Minsmere-Walberswick Ramsar. This Ramsar lies over 3.5km to the south of this area and therefore assessment of this species at this location has not been included within this HRA. However it has been assessed in detail within the associated NCA document for the Pakefield to Easton Bavents SSSI.

Conclusion

Taking into account the proposed mitigation measures as outlined above, Natural England do not consider it likely that this Optional Alternative Route will result in any negative impacts to qualifying features.

D3.2E Easton Wood

Current Situation

Access Baseline

The proposed alignment follows a route of cleared vegetation through the Easton Wood where there is no existing legal public access. Signs have clearly been displayed to ward walkers away from the wood which is marked as private Benacre Estate land. The landwards coastal margin will extend to the edge of the path and therefore no new public access under the Coastal Access legislation are proposed across Easton Wood.

The foreshore at this location is comprised of sand and shingle and has low current levels of access.

Environmental Baseline

Part of Easton Wood adjacent to AHS-4-S016 is designated as part of the Benacre to Easton Bavents SPA. These woods provide supporting habitat for a number of birds including a Schedule 1 species under the 1981 Wildlife and Countryside Act.

Detailed Design and Assessment of Risk

We anticipate a small increase in levels of use along the main trail. There are no facilities nearby and therefore visitors may be more likely to visit Covehithe or Southwold.

We anticipate a negligible increase in access across the coastal margin here as visitors will continue to use the site as they currently do, and some visitors may instead choose to use the newly established Coast Path.

Disturbance to individual breeding bird species

Whilst we are not proposing any additional coastal access rights into Easton Wood there is a potential risk that trespass landwards of the path could disturb the birds within this woodland.

To help prevent disturbance via either trespass or visual disturbance from path users we propose to install approximately 500m of stock-proof post and wire fencing parallel to and 50m landwards of the path at AHS-4-S016. This fence will be screened by the addition of brushwood thatch to disguise its appearance and to act as a visual barrier between path walkers and wildlife.

An advisory board to the south and the north east of Easton Wood (AHS-4-S015 and AHS-4-S016 respectively) will include text to state that dogs should be kept under control to prevent them entering Easton Wood from the main trail.

Loss of SPA supporting habitat

Installation of waymarkers will represent a small scale loss of habitat although these will be installed on the path and therefore we do not anticipate that these will result in any significant loss of SPA supporting habitat. The pedestrian gate, fence and brushwood thatch screening will result in a small loss of habitat area. This fencing will deter potential trespass into Easton Wood and potential disturbance to the bird population.

Disturbance to birds resulting from the installation of infrastructure

Installation of infrastructure will be completed during the winter months to prevent disturbance to breeding birds. The fence at Easton Wood will be installed using a combination of machinery and hand tools by experienced reserve staff. Please see Table 9 for further details.

When hand tools are used to install infrastructure visual disturbance may pose a higher risk of disturbance than noise or other disturbance factors. In this woodland environment the high vegetation cover may decrease visual disturbance. At its furthest point Easton Wood extends over 300m away from the proposed route of the post and wire fencing, enabling birds in the area to retreat to a distance at which they will not be disturbed whilst remaining in the woodland habitat.

Conclusion

The path follows a route of cleared vegetation and will be well waymarked, with steps taken to deter trespass into the woodland habitat. There are therefore no appreciable risk to this SPA site as a result of these proposals.

D3.2F Easton, Covehithe and Benacre Broads

Current Situation

The trail aligns along the shorefront seawards of these three broads. These area are grouped here to reflect the similar approach taken within these proposals to ensure effects on qualifying features are minimised.

Access Baseline

The access baseline and predicted changes in use are set out in Table 11 below.

Table 11. Access Baseline and Predicted Change of Use at the Broads

Location	Trail or Coastal Margin	Access Baseline	Current Levels of Use	Predicted Change in Use
Easton Broad	Trail	Establishes new sections of route seaward of Easton Broad and northwards into Easton Wood.	Low levels of use, although worn paths can be seen along the cliff top and down towards the beach.	Small increase in use. There are no parking or visitor facilities nearby. The nearest are Covehithe over 2km to the north and Southwold 3km to the south. Easton lane has historically had limited parking capacity used by locals.

Location	Trail or Coastal Margin	Access Baseline	Current Levels of Use	Predicted Change in Use
				This location attracts fewer walkers than Covehithe. Closer to Southwold the increase is anticipated to be higher and some walkers may choose to walk 3km to this area.
	Coastal Margin	The beach area includes no existing PROWs.	Low levels of use, seasonally partially impeded by the little tern fencing. Occasional access from locals parking at Easton Lane which has historically had capacity for 6-8 cars.	Negligible increase in use. Facilities for visitors are over 2km away. When present, walkers use the beach or sit at the base of the low-lying cliffs at North Warren (unit 2 of the Pakefield to Easton Bavents SSSI). The intertidal is attractive although seasonally partially fenced for ground nesting birds.
Covehithe Broad	Trail	Establishes new sections of route along the cliff top near The Warren and across the well- walked Covehithe beach. Here the alignment leaves the beach to join a walked path which then links onto the recently cleared route on the seaward headland. This climbs	Low access levels. The cliff top walk near Covehithe is discouraged by signage although aerial imagery shows some paths have been worn through use.	Medium increase at both The Warren and Covehithe ends of the Broad. This is due to the opening of a much-sought after clifftop walk which connects to Easton Wood in the south that provides easier walking than the sand/shingle beach.

Location	Trail or Coastal Margin	Access Baseline	Current Levels of Use	Predicted Change in Use
		up the cliff top towards Covehithe.		
	Coastal Margin	A PROW from Covehithe past Green Heath provides access to near the beach, from here walkers use a small ex-permissive section of path onto the beach.	Low to medium levels of use. Walkers can access the beach via a PROW from Covehithe. This drops to low levels to the south near to Warren House.	Negligible increase. This beach is already increasingly popular with visitors with parking facilities 1km away. The intertidal is attractive although seasonally partially fenced for ground nesting birds. There is a possible increase near The Warren, however the terrain is unattractive tussocky grass.
Benacre Broad	Trail	Establishes new sections of route on cliff tops at the seaward headland of arable fields, grassland and wooded areas (Boathouse Covert and Long Covert).	Low access along the cliff top. Access is discouraged and any attempts are halted by bramble and gorse at Boathouse Covert. Low to medium use of the beach path. Although no public right of way or open access rights apply access has historically been tolerated.	Small increase in use. This is due to pathway improvements such as signage and vegetation clearance. Walkers from Covehithe may be prepared to walk further on the improved route.
	Coastal Margin	The beach area includes no existing public rights of way or open access rights, although access has	Low to medium levels of use of the beach. Evidence points to an increasing number of visitors parking at	Negligible increase. The intertidal is attractive although seasonally partially fenced for ground

Location	Trail or Coastal Margin	Access Baseline	Current Levels of Use	Predicted Change in Use
		historically been tolerated.	Covehithe, over 1.5km away; a number of walkers from here may continue to Benacre Broad.	nesting birds. A significant proportion of trail users are expected to remain on the trail.

The three Broads above along with The Denes form the Benacre NNR, part of the Benacre Estate. This area is subject to high levels of coastal erosion. The Covehithe cliffs have receded by 65-80m in the period 1991 to 2009 [Ref 50, Environment Agency, 2010).

Of the three areas Covehithe attracts the most visitors due to the availability of parking at Covehithe and the PROW leading towards the attractive beach. The church ruins at Covehithe also draws visitors and attracts 40,000 visitors per annum [Ref 26].

Natural England currently fence the beach across the Easton, Covehithe and Benacre Broads for little tern, avocet and ringed plover over the summer months.

Environmental Baseline

The Easton, Covehithe and Benacre Broads are designated SAC and SPA sites. They are brackish lagoon features which contain fringing reeds on their landward sides, grading into deciduous woodland as the ground rises inland. They are separated from the sea by shingle bars which provide good habitat for ground nesting birds.

Easton, Covehithe and Benacre Broad along with The Denes to the north are all part of the Benacre National Nature Reserve.

NNR staff and volunteers engage with beach users to raise their awareness during the months when little terns attempt to breed on the sites. They request that dogs are kept on leads and have provided spare leads when necessary. In the past these efforts have been aided by EU Life Project funding and two wardens have been active. During the summer of 2019, after the project funding ceased, only one warden was active and their time split between this NNR, the Westleton NNR and the Suffolk Coast NNR.

There are a number of large interpretation boards across the site. Examples include at the South of The Denes at AHS-4-OA31, north of Covehithe Broad at AHS-4-OA26 and at the Benacre Ness Pumping Station at AHS-4-S033. Example text includes: "Please help look after this site by following the Countryside Code and, in particular, keep dogs on leads."

The popularity of the beaches at the Benacre to Easton Bavents SPA, including The Denes and Benacre Ness for walking and dog-walking has greatly reduced the suitability of these areas for nesting terns. An estimated 40,000 people visit the NNR per year (ie the three Broads & the Denes). Long term disturbance means features are not always recorded where they would be expected [Ref 15, Benacre to Easton Bavents SIP, 2015].

Detailed design and assessment of risk

Disturbance to individual breeding bird species (breeding little tern; bittern; marsh harrier)

Habitat suitable for shore-nesting birds lies close to the trail alignment seawards of the three Broads. Little tern, ringed plover, avocet, and oystercatcher are particularly sensitive to disturbance when nesting on the shingle and margins to the lagoons.

The existing management practices will continue with the establishment of the England Coast Path. The interpretation panel at the north of The Denes (AHS-4-S033) is going to be updated to inform walkers approaching the NNR from the north about the wildlife sensitivities of the area.

From the south walkers on the main route will pass the advisory sign at AHS-4-S013 which will remind walkers to keep dogs under control at all times, in addition to giving information about the OAR in this area. Signage on the OAR at AHS-4-OA001, AHS-4-OA003 will include similar text about dogs. Two existing interpretation panels are already in place around the Easton Broad OAR and these are located at AHS-4-OA005, where the OAR leaves the Lowestoft road, and at AHS-4-OA11, which inform walkers about responsible dog ownership. The former interpretation panel advises that dogs are kept on leads across Pottersbridge marshes.

Seasonal fencing for nesting little terns is expected to continue and this will be complemented by a s26(3)(a) seasonal access exclusion for wildlife conservation. This will prevent public access within the fenced areas from 15th March to 31st August each year.

Trampling of saline lagoon margins

No coastal access rights are proposed over the lagoons and areas of saltmarsh as the landwards coastal margin extends to the edge of the sand. The lagoons have been observed to be used by walkers and their dogs in winter when the little tern fences are removed. The ground nesting bird fencing may indirectly reduce access to the saline lagoons and the potential for disturbance in these areas.

Signage at each of the three Broads (and The Denes) will remind walkers of the sensitive nature of the lagoons and ask that dog owners do not allow their dogs to enter these waterbodies. Signage will be installed so that walkers travelling both southwards and northwards will pass a sign.

Loss of SPA supporting habitat

The installation of waymarkers will represent a small scale loss of habitat although these will be installed on the path and therefore we do not anticipate that these will result in any significant loss of SPA supporting habitat.

Conclusion

Natural England have considered possible risks to qualifying features at this location and consider that no new significant negative impacts will result from these proposals. Establishing a well maintained and easy to follow Coast Path along the alignment proposed will help with the long-term management of visitors to the site.

D3.2G The Denes and Kessingland Beach

Current Situation

Access Baseline

The Denes is an area of CROW Open Access Land within the Benacre NNR. There is no existing PROW running north to south across The Denes although an informal path is marked on OS maps, which forms part of the Suffolk Coast Path. Aerial imagery shows this path is clearly worn. Walkers tend to use this path to avoid walking on vegetated shingle, or they walk on the intertidal when this is available.

Across Kessingland Beach the alignment is proposed on an existing PROW which forms part of the Suffolk Coast path. This routes inland at AHS-4-S048 and re-joins the seafront at AHS-4-S062. At the Heathland Beach Caravan Park we are proposing to re-establish a cliff-top walk which is currently impassable.

There are few facilities near this location. The nearest parking facilities are located at Kessingland, over 1km to the north, or at Covehithe, over 2km to the south.

There are currently low to medium levels of use along this path and low levels of use of the beach. Data from a people counter at Benacre Ness pumping station immediately north of The Denes recorded 5,300 counts for January and February 2018.

The SPA and SAC designations extend northwards along Kessingland Beach as far as the Kessingland Beach Holiday Park (AHS-4-S034 to AHS-4-S038). This does not fall within the Benacre NNR. The proposed route continues to follow the Suffolk Coast Path on a path clearly demarcated on aerial imagery. The surface of the route here is sandy whilst some shingle areas are present in the coastal margin. The beach is very popular with local dog walkers.

Environmental Baseline

The Denes is designated as an SPA and SAC site. It is a mobile shingle feature containing a man-made lagoon, which is gradually becoming infilled due to seawater breach and sediment input. The shingle feature is moving north at approximately 30m per year due to natural coastal processes.

There is a current access restriction in place to keep dogs on short leads between 1st March and 31st July across The Denes Open Access land in order to protect ground nesting birds. This full restriction wording reads: 'dogs on leads to avoid disturbance of ground-nesting birds (breeding skylark, ringed plover; potential for little terns; foraging oystercatchers) by walkers and their dogs'. An existing interpretation panel at the Benacre Ness pumping station, AHS-4-S033, contain text informing walkers of this restriction as does an advisory board at AHS-4-OA31, near Beach Farm.

There are a number of existing advisory boards across the site, for example to the south of The Denes at AHS-4-OA31. Example text from these signs include: "Please help look after this site by following the Countryside Code and, in particular, keep dogs on leads."

Little terns nest in colonies on open shingle on Kessingland Beach, and usually arrive at the nesting site at the beginning of May. 48 pairs nested in 2017 [Ref 3].

In 2015 4 pairs of ringed plover nested at Kessingland and 3 pairs at Benacre (from which two pairs reared seven young). There is no specific mention of birds breeding on The Denes area [Ref 51]. This is also the case with the 2017 report [Ref 3].

Kessingland beach is accreting sediment due to natural coastal processes and this beach is migrating northwards. Bare shingle to the south is becoming vegetated which results in little terns moving to areas of newer shingle [Ref 15]. The SPA boundary no longer includes the main area used by nesting little terns on this beach, however we consider it appropriate to assess little terns here as the SPA boundary does not reflect recent geomorphological changes. Furthermore, little terns form 'meta-populations' along the coastline, therefore in future these individual birds could breed within the SPA.

Detailed Design and assessment of risk

Across The Denes and southwards to Benacre Broad we anticipate a small increase in the levels of use of the trail and a negligible increase in levels of use of the coastal margin with the establishment of the England Coast Path.

This small increase is predicted in part due to the added promotion associated with a National Trail which may encourage more visitors from Covehithe and the surroundings to walk to the area. However the lack of nearby facilities is likely to result in only a small increase in path users. The shingle present on the coastal margin is not attractive to walk upon and therefore a negligible increase in use of the coastal margin is predicted.

We anticipate a negligible relative increase in use of the coastal margin on this part of Kessingland beach due to the high levels of existing use which are not expected to change.

Disturbance to individual bird species (little terns)

To ensure all path users are aware of the wildlife sensitivities of the area the interpretation panel at the north of The Denes (AHS-4-S033) is going to be updated. In addition, a 'dogs to leads' sign will be installed on the gate into the reserve during the months when this restriction is in force.

From the south, those using the main trail will pass a proposed dogs to leads sign at the junction between AHS-4- S031 and AHS-4-OA031 to inform them of the restriction. Those using the OAR will pass the existing advisory board at Beach Farm, AHS-4-OA031.

At Kessingland Beach these proposals include the reestablishment of a clifftop walk at the Heathland Beach Holiday park which will likely reduce access onto the beach. We are not proposing any restrictions or fencing at this location.

Trampling of saline lagoon margins

This feature lies within existing Open Access land with a negligible increase of use within the coastal margin. The seasonal dogs to leads restriction will prevent dogs from entering the water during these months. Walkers and dogs have not been observed to enter the lagoon during site visits. This lagoon does not have an attractive appearance and is unlikely to encourage swimmers. It is not considered that this feature will be at a significantly increased risk as a result of these proposals.

Signage at The Denes will remind walkers of the sensitive nature of the lagoons and ask that dog owners do not allow their dogs to enter these waterbodies. Signage will be installed so that walkers travelling both southwards and northwards will pass a sign.

Loss of SPA supporting habitat

Installation of waymarkers will represent a small scale loss of habitat although these will be installed on the path and therefore we do not anticipate that these will result in any significant loss of SPA supporting habitat.

Conclusion

Given the existing Open Access rights with dogs to leads restrictions, which will be complemented by the seasonal s26(3)(a) restriction across the coastal margin and clear waymarking of the alignment, we consider that no new significant negative impacts to designated features will result in the implementation of these proposals.

D3.3 Assessment of potentially adverse effects at a stretch level (taking account of any additional mitigation measures incorporated into the design of the access proposal) alone

This is the part of the assessment where the integrity test is made. Use the following table to structure your assessment.

Make sure that the commentary going across the table fully addresses any risks identified.

Table 12. Assessment of adverse effect on site integrity alone

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
Disturbance to the wetland breeding birds assemblage. (Gadwall; shoveler; teal; bearded tit, Cetti's warbler; water rail; garganey) Disturbance during breeding season can lead to direct trampling of eggs and chicks, or disturbance of incubating parents leading to increased mortality through predation or hypothermia/heat.	Many parts of the route are aligned along existing coastal access routes including PRoW and existing walked routes. For example the route landwards of Dingle Marshes follows a section of the Suffolk Coast Path. The route near Minsmere has been determined with the advice from reserve staff and is on existing walked routes. Areas of saltmarsh at the Dingle and Corporation Marshes are covered by and s25A access exclusion year round as they are	**Yes** **Minsmere** Reserve staff have been involved with alignment discussions. A small relative increase in visitor numbers is expected due to the high level of use already present at the site. No appreciable risk. **Dingle and Corporation Marshes** The proposed route is landwards of the wetland with no attractors or incentives to access the wetland. The wetland areas are covered by a year round s25A access exclusion. Seasonal s26(3)(a) access	**No**

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	unsuitable for public access.	restrictions for little terns indirectly prevent access into the wetland area. No appreciable risk.	
Disturbance to individual breeding bird species (breeding terns and avocet, bittern and marsh harrier. Non-breeding bittern. Woodlark and nightjar at Dunwich heath)	The above points regarding the Minsmere Reserve and Dingle and Corporation marshes also apply here as breeding bittern and marsh harrier are known to use these sites. The existing seasonal dogs to leads restriction across the Dunwich Heath Open Access land will be brought under coastal access rights through the implementation of a s26(3)(a) restriction covering the trail and its associated seaward and landward margin. New signage at Dunwich heath will inform walkers of the seasonal restriction and include information about	**Yes** **Minsmere** The alignment at Minsmere frontage is along an existing busy PROW with a small relative increase in walkers anticipated in light of these proposals. The route alignment is landward of the ridge so increases spatial separation between path users and shingle habitat. Reserve staff have been involved with alignment discussions. No appreciable risk. **Dunwich Heath** Existing seasonal dogs to leads restrictions will continue under these proposals. The National Trust keep paths well-maintained in this area and the alignment is on existing well-used	**Yes** At the Easton Broad OAR there are considered to be residual risks to breeding bittern, breeding marsh harrier and non-breeding bittern through noise disturbance from path users. There is a residual risk to little terns at Covehithe Broad due to the anticipated medium increase of path use. There is a residual risk to little terns at Kessingland Beach as this is a known nesting site (outside of the SPA) where little tern fencing is not undertaken. It is possible there are other plans and projects currently in development that

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	responsible photography techniques. A s26(3)(a) seasonal exclusion are proposed along the shingle foreshore at the Dingle Marshes and at the Easton, Covehithe and Benacre Broads to reinforce existing management practise (seasonal little tern fencing) and reduce the interactions between path users and qualifying features. Guide fencing installed at the Dingle shingle to reduce trampling of shingle may indirectly benefit breeding terns. Vegetative screening is proposed along the Pottersbridge OAR to reduce disturbance to bird interest within the Easton Marshes. Reducing the views will decrease the likelihood that walkers	paths. No appreciable risk. **Dingle and Corporation Marshes** Additional signage and the guide fence will indirectly benefit ground-nesting birds via reduced access. An s26(3)(a) is proposed to complement existing little tern fencing at this site. No appreciable risk. **Easton Broad OAR** Noise disturbance at Pottersbridge Marshes on the Easton Broad OAR may still present a residual risk, particularly as this is an area of new access. However this is not significant because screening will prevent views across the marshes and therefore offer no views as incentives to remain in the area, and signage will advise to keep walkers' dogs under control. **Easton Wood** A fence and screen is proposed landwards	could, in combination with the Coast Path, lead to adverse effects on the integrity of the site. In light of this uncertainty, and in order to ensure that the implementation of coastal access in this area doesn't lead to adverse effects on integrity in combination with other planned initiatives, we have carried out a further in-combination assessment below.

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	will wish to remain in the area. NE will request that the Optional Alternative Route (OAR) at Pottersbridge will not be depicted on OS mapping to reduce unnecessary use of this route. A new fence and screen is proposed within Easton Wood parallel to the alignment and approximately 50m inland of it to deter trespass into these woods which could result in disturbance to bird species. Our proposals include improved signage advising walkers or this restriction, and to keep dogs under control year-round. A s26(3)(a) seasonal dogs to leads restriction is proposed on the trail and across the seawards coastal margin at The Denes Open Access land to	of the path to prevent visual disturbance by path users, and deter trespass. Signage will inform walkers of the seasonal dogs to leads restriction across the Benacre NNR. No appreciable risk. **Easton, Covehithe and Benacre Broads** Due to the availability of nearby facilities at Covehithe Broad we anticipate a medium increase in the use of the path here, therefore despite the inclusion of a s26(3)(a) restriction to reinforce existing fencing of little tern nesting sites a residual risk has been determined for the shore-nesting bird species at this location. **The Denes & Kessingland Beach** These are well used and The Denes is designated Open Access land. Signage will inform walkers to keep dogs on leads during the summer	

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	reinforce this existing management practise. New interpretation will inform people of restrictions due to nature conservation, educate walkers on the sensitives at key locations and encourage responsible behaviour. This includes updated signage at the Benacre Ness Pumping station, AHS-4-S033.	months when this restriction is in place. As part of the Coast Path proposals the continual cliff-top walk at the Heathland Beach Holiday park north of Kessingland will be re-established, providing walkers a continual cliff-top walking route which removed the current need to walk on the beach at this location.	
Loss of habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland	The installation of simple waymarkers and one multi-finger post on the Dingle and Corporation Marshes will be on the path itself and therefore constitute a trivial loss to this habitat. This habitat falls within coastal margin at the Dingle and Corporation marshes, however an s25A exclusion of public access year-round will prevent public access.	**Yes** There will be no significant loss to this habitat. Materials and construction methods will be sympathetic to the surroundings and pose no long-term risks to the environment.	**No**
Trampling and loss of vegetated shingle	Simple waymarkers and advisory signs are proposed on	**Yes**	**No**

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	vegetated shingle which will result in a trivial loss of habitat. Waymarkers will encourage walkers to use one route and reduce trampling, whilst advisory signs will inform the public of routes to the shore that minimise trampling of vegetated shingle, as well as informing visitors of the sensitive nature of the vegetated shingle. A guide fence is proposed on the shingle at Dingle Marshes with an advisory board to discourage walkers from trampling the shingle at this location.	The coast path proposals are likely to reduce the amount of overall trampling of this habitat by channelling walkers onto a single route and informing them about this sensitive habitat. The seasonal fencing for ground nesting birds will continue to indirectly protect areas of vegetated shingle from trampling.	
Tramping and loss of heathland	Existing management practices of seasonally restricting dogs to short leads at Dunwich Heath will continue under a proposed s26(3)(a) restriction.	**Yes** The area is and will remain Open Access land with pathways well maintained by the National Trust. High levels of usage are already experienced at this location so the	**No**

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	The route is well established with high levels of use. The vegetation present deters new access off the worn paths. Increased signage across the heath will encourage walkers to remain on one route.	increase with the establishment of the England Coast Path are likely to be small.	
Trampling of saline lagoons margins	The saline lagoons at the Dingle and Corporation marshes are unsuitable for access and as such are covered by a proposed s25A year round access exclusion. Seasonal s26(3)(a) access exclusions proposed along the shoreline at the Broads, covering the areas seasonally fenced to protect ground nesting birds, will indirectly reduce access to the lagoons. The lagoon at The Denes is on Open Access land. Signage will be installed at the Broads and The Denes to	**Yes** These proposals do not increase or promote access to the saline lagoon habitats.	**No**

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	inform walkers of the sensitive nature of the lagoons and ask that dogs are not allowed to enter these waterbodies.		
Loss of SPA supporting habitat	Simple waymarkers and multi-finger posts will be installed on the pathway and therefore result in trivial loss of SPA supporting habitat. Boardwalk at the Easton Broad OAR will be replaced with no additional loss of SPA habitat. A pedestrian gate and screened fence to be installed within Easton Wood at AHS-4-S016 will manage access and deter trespass. Surface improvements will be completed using materials sympathetic to their surroundings and in a manner which poses no risks to the site. Materials will be placed on the path and this will encourage walkers to	**Yes** **Dingle Marshes** The guide fence will reduce the risk of trampling on vegetated shingle and indirectly benefit ground-nesting birds. **Easton Wood** The proposed new pedestrian gate and fencing within Easton wood will help deter trespass into the woods. **Easton Broad OAR** A route will be cleared through the vegetation to the north of the marshes. This will only be wide enough to allow two walkers to pass. **Other Infrastructure** The combined waymarkers and interpretation and advisory boards will	**Yes** The pedestrian gate and fencing will represent a small scale loss of habitat within Easton Wood. The four waymarkers proposed on vegetated shingle within the Minsmere-Walberswick Heaths and Marshes SAC, along with the guide fence on the Dingle Marshes foreshore will represent a small scale loss of habitat. The proposed clearance of vegetation at the Easton Broad OAR will result in a loss to SPA supporting habitat.

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
	remain on the main route.	result in a small scale loss of habitat.	
Installation of infrastructure	The installation of a boardwalk at Pottersbridge Marshes on the Easton Broad OAR and 500m of fencing with a gate at Easton Wood. The installation of a post and rope guide fence, with an attached interpretation panel, at the Dingle Marshes foreshore. The planting of vegetative screening, and vegetation clearance, at the Easton Broad OAR.	**Yes** Infrastructure will be installed in the winter months so as not to disturb any breeding populations of birds. The operator is to design access routes, storage areas and site facilities to minimise disturbance impacts and use hand tools where practicable. See Table 9. The boardwalk at Pottersbridge on the Easton Broad OAR will cover the same footprint as the previous boardwalk. Appropriate prior survey work will ensure wildlife disturbance is kept to a minimum at the Easton Broad OAR.	**No**

Conclusion:

The following risks to conservation objectives identified in D1 are effectively addressed by the proposals and no adverse effect on site integrity (taking into account any incorporated mitigation measures) can be concluded:

- **Disturbance to the wetland breeding bird assemblage**
- **Loss of habitat habitats and plants associated with river banks, ditches, dykes, grazing marsh, salt marsh, reedbeds and woodland Trampling and loss of vegetated shingle**
- **Tramping and loss of heathland**
- **Trampling of saline lagoon margins**
- **Installation of infrastructure**

The following risks to conservation objectives identified in D1 are effectively addressed by the proposals and no adverse effect on site integrity (taking into account any incorporated mitigation measures) can be concluded, although there is some residual risk of insignificant impacts:

- **Disturbance to individual breeding bird species - at Pottersbridge Marshes through noise disturbance from path users on the Easton Broad OAR.**
- **Disturbance to individual breeding bird species – to nesting little terns at Covehithe Broad.**
- **Disturbance to individual breeding bird species – to nesting little terns at Kessingland Beach.**
- **Loss of SPA supporting habitat – due to the installation of the pedestrian gate and fencing at Easton Wood, the installation of the post and rope guide fence on the shingle at the Dingle Marshes foreshore, and clearance of vegetation at the Easton Marshes OAR.**

D4 Assessment of potentially adverse effects considering the project 'in-combination' with other plans and projects

The need for further assessment of the risk of in-combination effects is considered here.

Natural England considers that it is the appreciable effects (from a proposed plan or project) that are not themselves considered to be adverse alone which must be further assessed to determine whether they could have a combined effect significant enough to result in an adverse effect on site integrity.

Step 1 – Are there any appreciable risks from the access proposals that have been identified in D3.3 as not themselves considered to be adverse alone?

Natural England considers that in this case the potential for adverse effects from the plan or project has not been wholly avoided by the incorporated or additional mitigation measures outlined in section D3. It is therefore considered that there are residual and appreciable effects likely to arise

from this project which have the potential to act in-combination with those from other proposed plans or projects. These are:

- Disturbance to individual breeding bird species - at Pottersbridge Marshes through noise disturbance from path users on the Easton Broad OAR.
- Disturbance to individual breeding bird species – to nesting little terns at Covehithe Broad.
- Disturbance to individual breeding bird species – to nesting little terns at Kessingland Beach.
- Loss of SPA supporting habitat – due to the installation of the pedestrian gate and fencing at Easton Wood, the installation of the post and rope guide fence on the shingle at the Dingle Marshes foreshore, and clearance of vegetation at the Easton Broad OAR.

Step 2 – Have any combinable risks been identified for other live plans or projects?

See the review of other live plans or projects presented in Step 2 of section C2.2.

In light of this review, we have identified insignificant and combinable effects are likely to arise from the following projects that have the potential to act in-combination with the access proposals:

No plans or projects have been identified which pose potential additional risks to those features listed above as being subject to residual risks under the Coast Path proposals.

Step 3 – Would the combined effect of risks identified at Step 1 and Step 2 be likely to have an adverse effect on site integrity?

In light of the conclusions of Steps 1 & 2, we have made an assessment of the risk of in combination effects. The results of this risk assessment, taking account of each qualifying feature of each site and in view of each site's Conservation Objectives, are as follows:

No plans or projects have been identified which pose a potential additional risk to those features listed above which have an identified residual risk. Therefore there are no combinable risks between these projects and the features.

D5. Conclusions on Site Integrity

Because the plan/project is not wholly directly connected with or necessary to the management of the European site and is likely to have a significant effect on that site (either alone or in combination with other plans or projects), Natural England carried out an Appropriate Assessment as required under Regulation 63 of the Habitats Regulations to ascertain whether or not it is possible to conclude that there would be no adverse effect on the integrity of a European Site(s).

Natural England has concluded that:

It can be ascertained, in view of site conservation objectives, that the access proposal (taking into account any incorporated avoidance and mitigation measures) will not have an adverse effect on the integrity of Sandlings Special Protected Area (SPA), Outer Thames Estuary SPA, Southern North Sea Special Area of Conservation (SAC), Benacre to Easton Bavents SPA, Minsmere-Walberswick SPA and Ramsar site, Minsmere to Walberswick Heaths & Marshes (SAC) and the Benacre to Easton Bavents Lagoons SAC either alone or in combination with other plans and projects.

PART E: Permission decision with respect to European Sites

Natural England has a statutory duty under section 296 of the Marine and Coastal Access Act 2009 to improve access to the English coast. To fulfil this duty, Natural England is required to make proposals to the Secretary of State under section 51 of the National Parks and Access to the Countryside Act 1949. In making proposals, Natural England, as the relevant competent authority, is required to carry out a HRA under Regulation 63 of the Habitats Regulations.

We, Natural England, are satisfied that our proposals to improve access to the English coast between Aldeburgh and Hopton-on-Sea are fully compatible with the relevant European site conservation objectives.

It is open to the Secretary of State to consider these proposals and make a decision about whether to approve them, with or without modifications. If the Secretary of State is minded to modify our proposals, further assessment under the Habitats Regulations may be needed before approval is given.

Certification

Assessment prepared and completed by:	Mary Andrew 	*On behalf of the Coastal Access Programme Team*
Date	12.12.19	
HRA approved:	Andy Millar 	*Senior Area Team officer with responsibility for protected sites*
Date	12.12.19	

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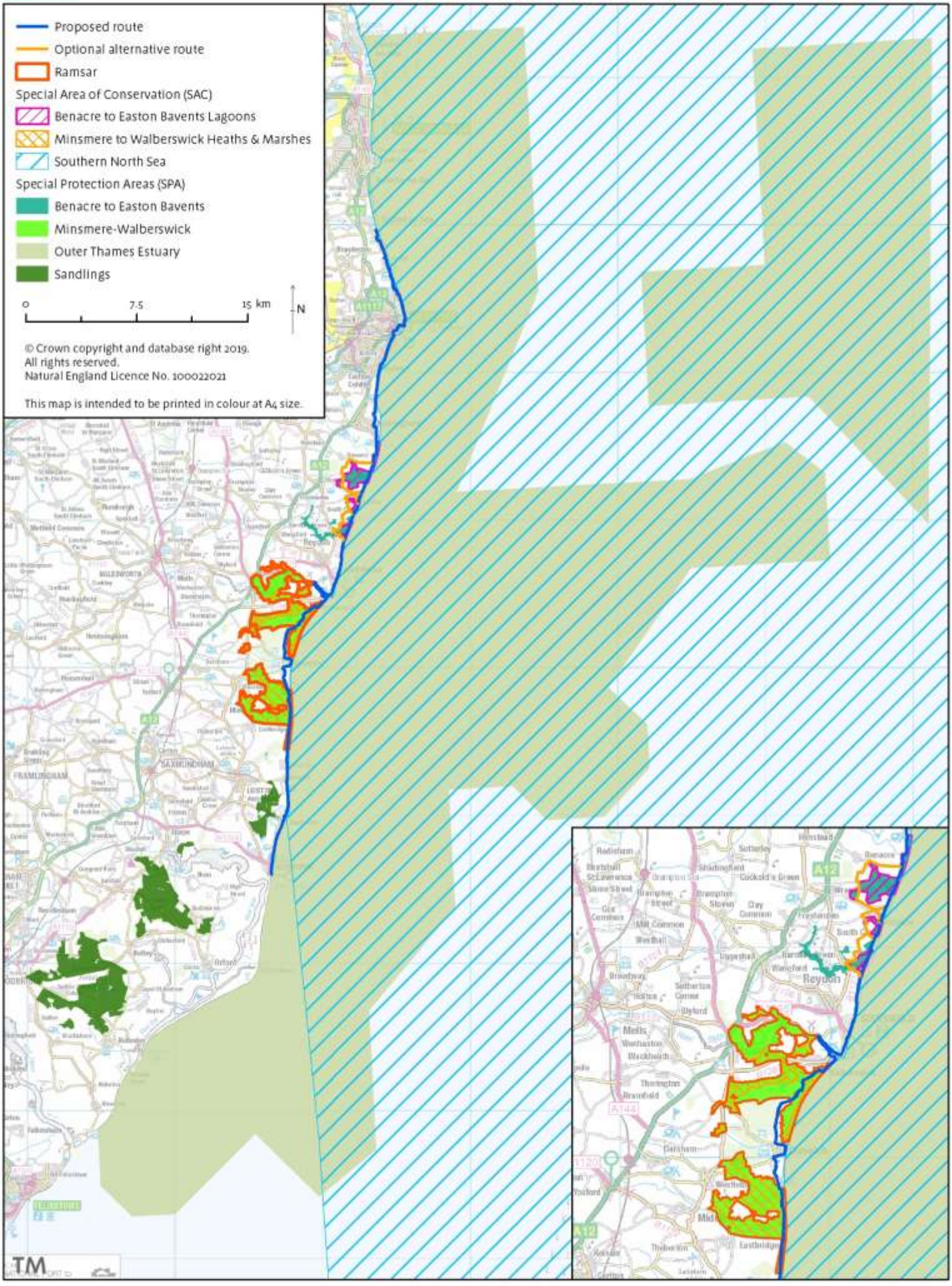
Appendix 1: HRA Maps

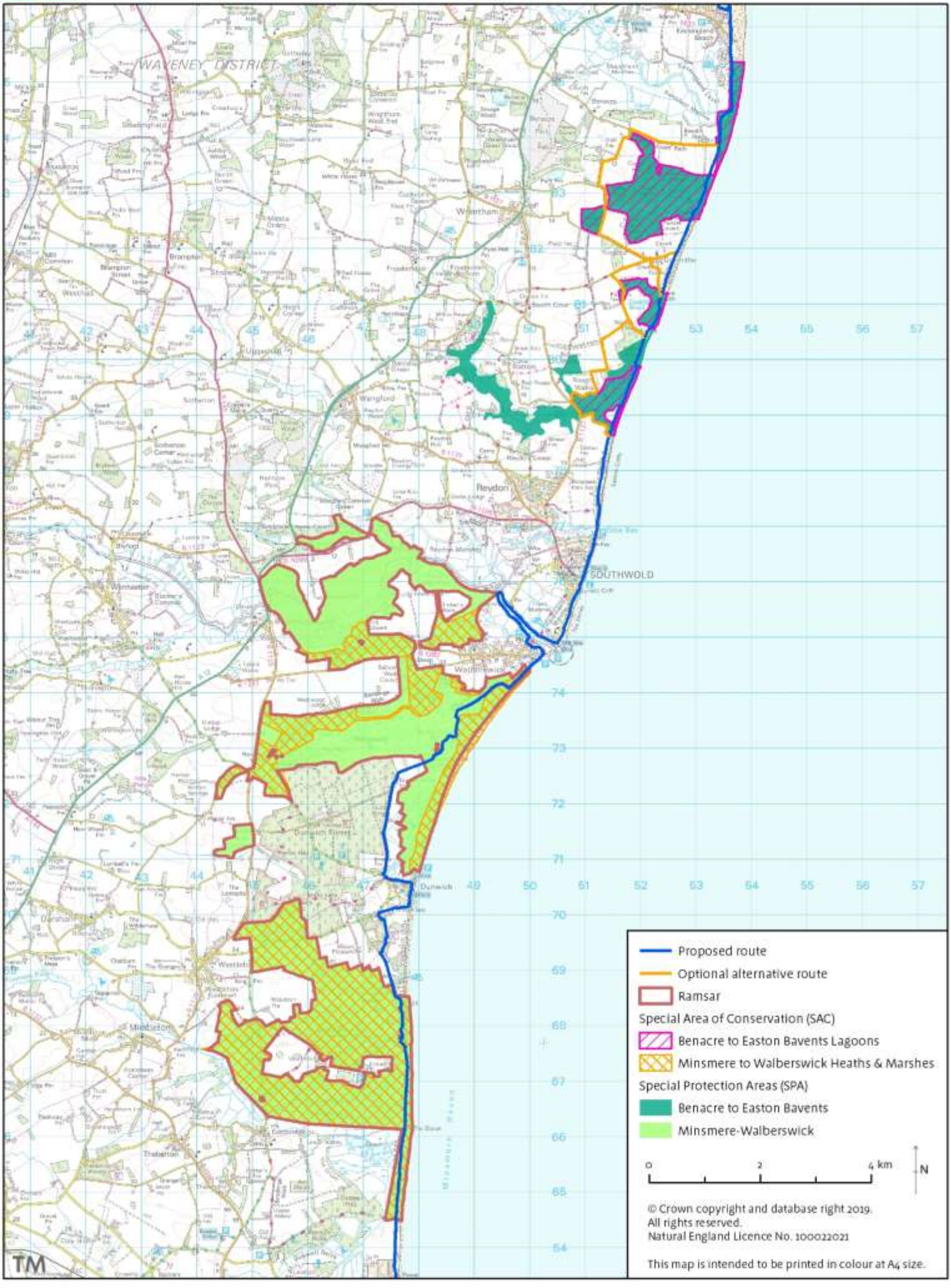
Aldeburgh to Hopton-on-Sea – Habitats Regulations Assessment

Map 1: Natura 2000 Designations



Aldeburgh to Hopton-on-Sea – Habitats Regulations Assessment

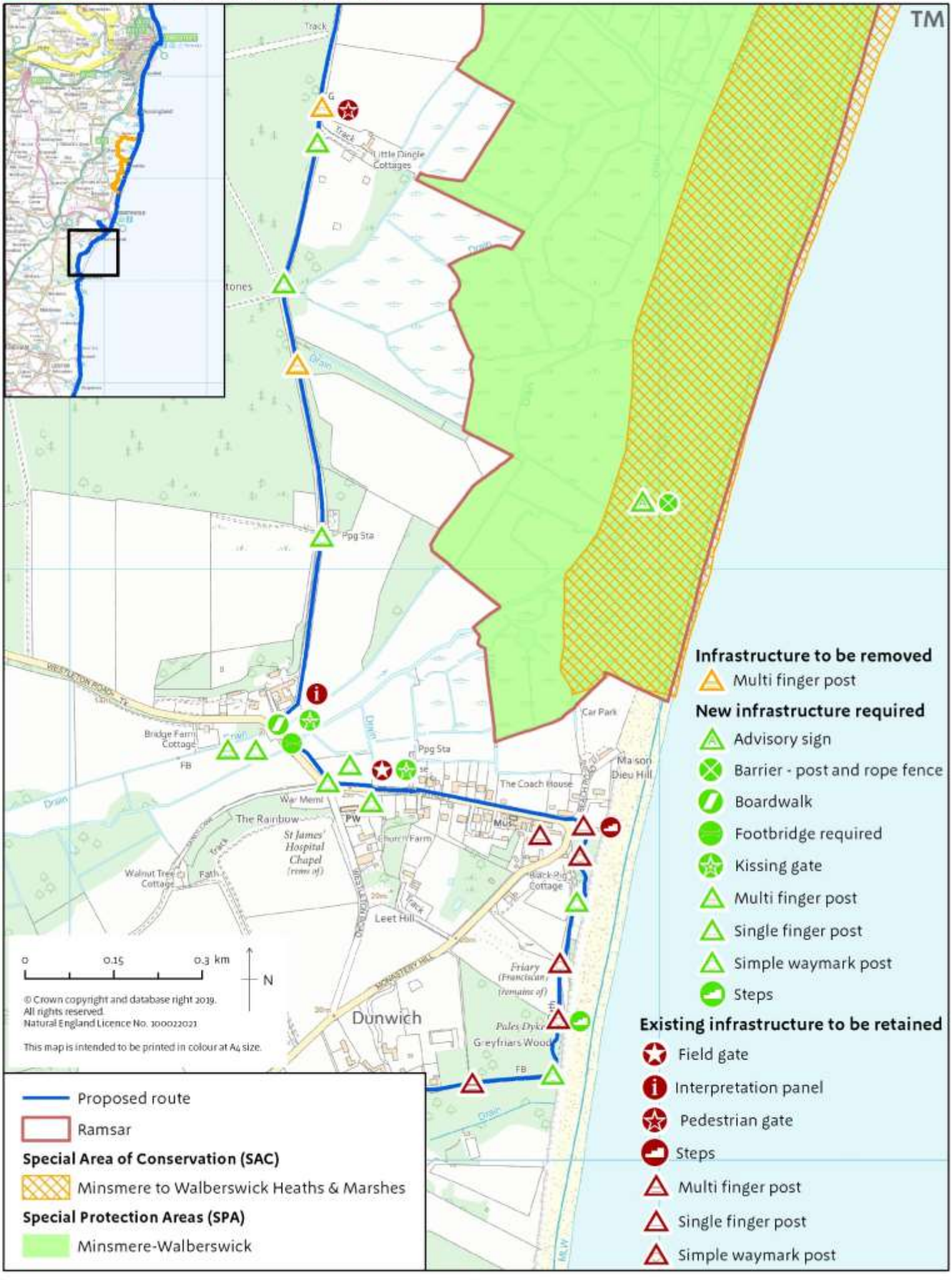
Map 1a: Natura 2000 Designations



This map is intended to be printed in colour at A4 size.

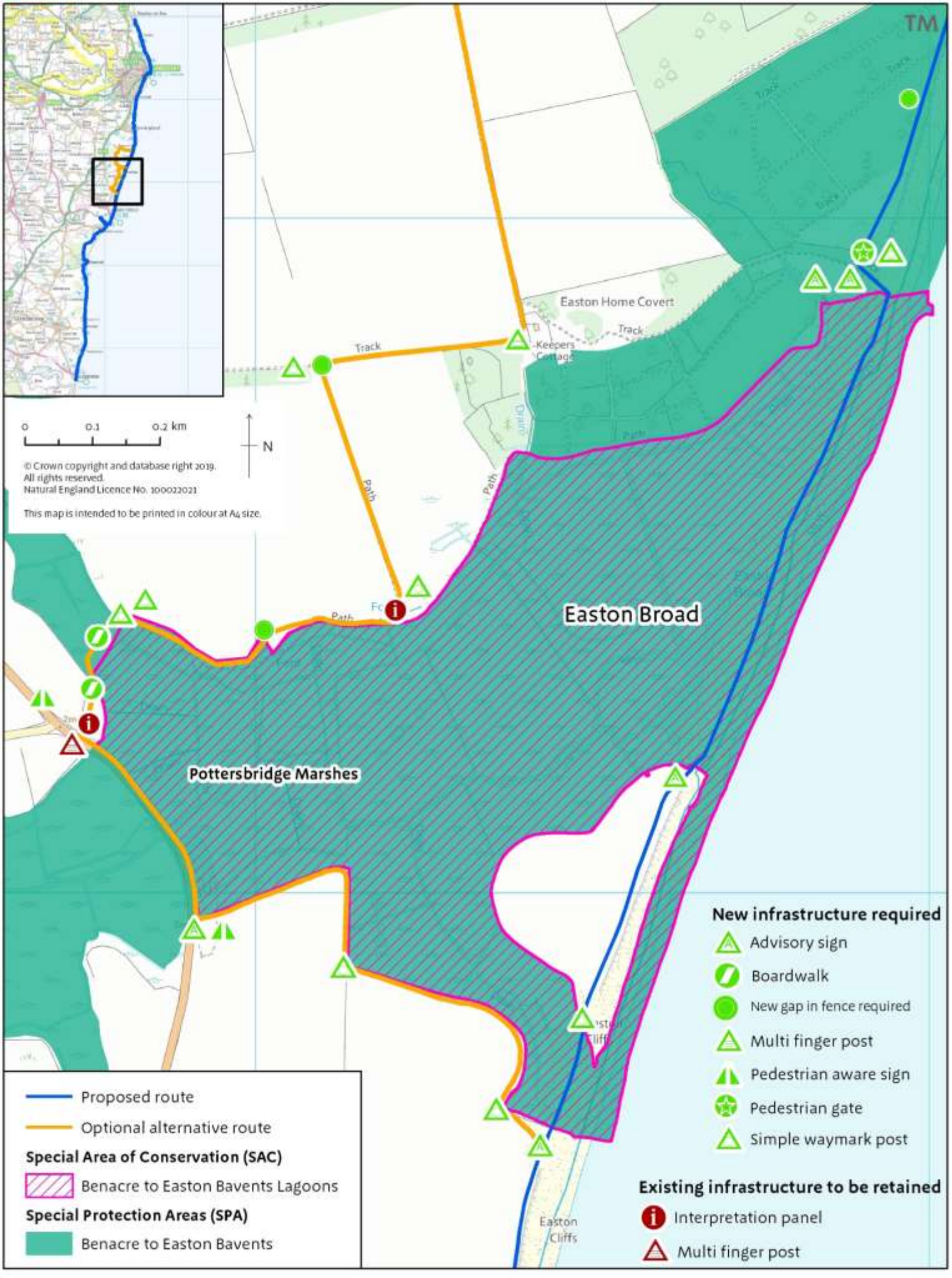
Aldeburgh to Hopton-on-Sea – Habitats Regulations Assessment

Map 2: Location of post and rope guide fence on the shingle of the Suffolk Coast National Nature Reserve



Aldeburgh to Hopton-on-Sea – Habitats Regulations Assessment

Map 3: The Easton Broad Optional Alternative Route (OAR)



Appendix 2: Division of Qualifying Features into HRA and NCA documents

The great majority* of the Minsmere-Walberswick Heaths and Marshes SSSI site area falls within the following European designated sites: the Minsmere-Walberswick Ramsar and the Minsmere-Walberswick SPA. Furthermore, some areas of this SSSI are covered by the Minsmere-Walberswick SAC.

Due to the geographical overlap between this SSSI and European designated sites it has been considered appropriate to assess some SSSI notified features within this HRA document when these features are also a designated European site feature. The table below sets out each feature, states which site(s) they are designated for and which document type they are assessed within.

*Exceptions, i.e. land areas only covered by the SSSI designation, are: Town Marshes to the south of Southwold, Oldtown Marshes, an area west of Tinkers Marshes, a small strip of land to the northwest of Dunwich forest and areas to the east and west of Eastbridge. Due to their small size relative to the Ramsar & SPA site areas these areas are assessed alongside the European designated sites.

Table 13: Division of Qualifying Features in the Minsmere Area
SPA = Minsmere-Walberswick SPA
SAC= Minsmere-Walberswick Heaths and Marshes SAC
Ramsar= Minsmere-Walberswick Ramsar
SSSI= Minsmere-Walberswick Heaths and Marshes SSSI
HRA= This Habitats Regulations Assessment (HRA) document for the England Coast Path proposals from Aldeburgh to Hopton-on-Sea
NCA = The associated Nature Conservation Assessment (NCA) for the England Coast Path proposals covering the Minsmere-Walberswick Heaths and Marshes SSSI

Qualifying feature(s)	SPA	SAC	Ramsar	SSSI	HRA/ NCA
Aggregations of non-breeding birds - greater white-fronted goose *Anser albifrons albifrons;*	✓				HRA
Aggregations of breeding birds - marsh harrier, *Circus aeruginosus*	✓		✓	✓	HRA
Aggregations of non-breeding birds - avocet, *Recurvirostra avosetta*	*				HRA
Aggregations of non-breeding birds - bittern, *Botaurus stellaris*	*				HRA
Aggregations of breeding birds - avocet, *Recurvirostra avosetta* (see also Features associated with shingle or beach)	✓		✓	✓	HRA

Qualifying feature(s)	SPA	SAC	Ramsar	SSSI	HRA/ NCA
Aggregations of breeding birds – gadwall, *Mareca* (formerly *Anas*) *strepera*	✓		✓	✓	HRA
Aggregations of breeding birds – shoveler, *Spatula* (formerly *Anas) clypeata*	✓		✓	✓	HRA
Aggregations of breeding birds – teal, *Anas crecca*	✓		✓	✓	HRA
Aggregations of non-breeding birds – shoveler, *Spatula* (formerly *Anas) clypeata;*	✓				HRA
Aggregations of non-breeding birds – gadwall, *Mareca* (formerly *Anas*) *strepera;*	✓				HRA
Aggregations of non-breeding birds - hen harrier, *Circus cyaneus*;	✓				HRA
Aggregations of breeding birds - little tern, *Sternula albifrons*	✓				HRA
Aggregations of breeding birds - bittern, *Botaurus stellaris*	✓		✓	✓	HRA
Assemblages of breeding birds - Lowland damp grasslands Includes lapwing, sedge warbler, reed bunting, mute swan, redshank, snipe, grasshopper warbler, yellow wagtail, cuckoo, grey heron, black-tailed godwit) *Note - shelduck, teal, shoveler, gadwall, garganey, marsh harrier fall into this assemblage but these are assessed within the HRA*				✓	NCA
Assemblages of breeding birds – Lowland fen without water bodies Includes sedge warbler, reed bunting, reed warbler, snipe, grasshopper warbler, cuckoo, grey heron, Savi's warbler *Note - water rail, bearded tit, Cetti's warbler, bittern, marsh harrier fall into this assemblage but these are assessed within the HRA*				✓	NCA
Assemblages of breeding birds – Lowland open water and margins assemblages Including reed bunting, little grebe, reed warbler, willow tit, mute swan, redshank, snipe, grasshopper warbler, yellow wagtail, cuckoo, grey heron, tufted duck, great crested grebe, ringed plover, kingfisher,Savi's warbler *Note - common tern, shelduck, water rail, teal, shoveler, avocet, bearded tit, Cetti's warbler, gadwall, bittern,*				✓	NCA

Qualifying feature(s)	SPA	SAC	Ramsar	SSSI	HRA/ NCA
garganey, marsh harrier fall into this assemblage but these are assessed within the HRA					
Aggregations of breeding birds – water rail, *Rallus aquaticus*			(✓)	✓	HRA
Aggregations of non-breeding birds (Calidris alpina dunlin				✓	NCA
Aggregations of non-breeding birds – variety of passage species				✓	NCA
Saltmarsh			(✓)	✓	HRA
Elytrigia atherica saltmarsh			(✓)	✓	HRA
Aggregations of breeding birds - bearded tit, *Panurus biarmicus*			(✓)	✓	HRA
Aggregations of breeding birds - garganey, *Spatula* (formerly) *Anas querquedula*			(✓)	✓	HRA
Aggregations of non-breeding birds – redshank, *Tringa totanus*				✓	NCA
Phragmites australis swamp and reed-beds			(✓)	✓	HRA
Carex acutiformis swamp			(✓)	✓	HRA
Invertebrate Assemblage			(✓)	✓	HRA
Lowland ditch systems			(✓)	✓	HRA
Juncus subnodulosus - Cirsium palustre fen meadow			(✓)	✓	HRA
Juncus effusus / acutiflorus - Galium palustre rush pasture			(✓)	✓	HRA
Filipendula ulmaria - Angelica sylvestris mire			(✓)	✓	HRA
Population of Schedule 8 plant - *Filago lutescens*, red-tipped cudweed			(✓)	✓	HRA
Cladium mariscus swamp and sedge-beds			(✓)	✓	HRA
Phragmites australis - Urtica dioica tall-herb fen			(✓)	✓	HRA
Sheltered muddy shores (including estuarine muds)			(✓)	✓	HRA
Festuca ovina - Agrostis capillaris - Rumex acetosella grassland				✓	NCA
Lowland calcareous grassland (CG7)				✓	NCA
Ramsar criterion 1			✓		HRA

Qualifying feature(s)	SPA	SAC	Ramsar	SSSI	HRA/ NCA
The site contains a mosaic of marine, freshwater, marshland and associated habitats, complete with transition areas in between. Contains the largest continuous stand of reedbeds in England and Wales and rare transition in grazing marsh ditch plants from brackish to fresh water. *Ramsar criterion 2* This site supports nine nationally scarce plants and at least 26 red data book invertebrates. Supports a population of the mollusc *Vertigo angustior* (Habitats Directive Annex II; British Red Data Book Endangered), recently discovered on the Blyth estuary river walls. An important assemblage of rare breeding birds associated with marshland and reedbeds including: Bittern, gadwall, Eurasian teal, northern shoveler, Eurasian marsh harrier, pied avocet, bearded tit					
Aggregations of breeding birds - woodlark *Lullula arborea;*	✓			✓	HRA
Aggregations of breeding birds - Cetti's warbler, *Cettia cetti*			(✓)	✓	HRA
Aggregations of breeding birds - nightjar, *Caprimulgus europaeus*	✓			✓	HRA
Calluna vulgaris - Festuca ovina heath		✓		✓	HRA
Calluna vulgaris - Ulex gallii heath		✓	(✓)	✓	HRA
Alnus glutinosa - Urtica dioica woodland			(✓)	✓	HRA
<u>European dry heaths</u> Lowland European dry heaths occupy an extensive area of this site on the east coast of England, which is at the extreme easterly range of heath development in the UK. The heathland is predominantly *Calluna vulgaris – Ulex gallii* heath, usually more characteristic of western parts of the UK. This type is dominated by heather *Calluna vulgaris*, western gorse *Ulex gallii* and bell heather *Erica cinerea*.		✓			HRA
Annual vegetation of drift line (*Cakile maritima-Honkenya peploides* strandline community)		✓			HRA

Qualifying feature(s)	SPA	SAC	Ramsar	SSSI	HRA/ NCA
Perennial vegetation of stony banks (*Rumex crispus - Glaucium flavum* shingle community		✓		✓	HRA
Carex arenaria - Cornicularia aculeata dune community			(✓)	✓	HRA
Carex arenaria - Festuca ovina - Agrostis capillaris dune grassland			(✓)	✓	HRA
Ammophila arenaria mobile dune community			(✓)	✓	HRA
Cakile maritima-Honkenya peploides strandline community			(✓)	✓	HRA
Saline coastal lagoons		✓	✓	✓	HRA
Vascular Plant Assemblage			✓	✓	HRA

* Non-breeding avocet and non-breeding bittern are assessed in the HRA, see section B1.

(✓) These features are considered under the overarching Ramsar designation, therefore are assessed within the HRA.