Assessment of England Coast Path proposals between

Felixstowe Ferry and Bawdsey

On

Deben Estuary Special Protection Area
Deben Estuary Ramsar site

December 2020

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i. Introduction

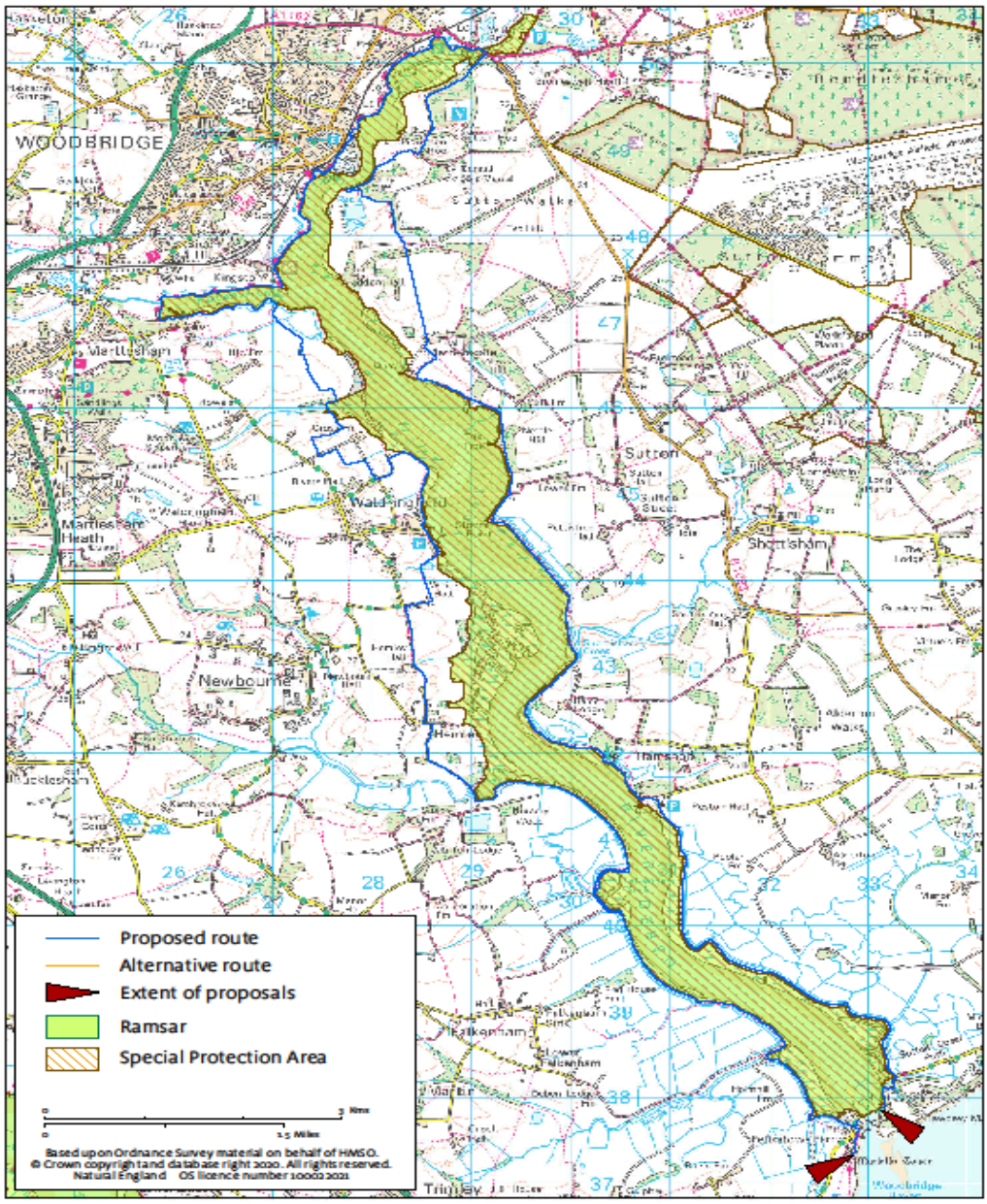
This is a record of the Habitats Regulations Assessment ('HRA') undertaken by Natural England (in its role of competent authority) in accordance with the assessment and review provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations').

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 Felixstowe Ferry to Bawdsey on the following sites of international importance for wildlife:

I) Deben Estuary Special Protection Area (SPA)
II) Deben Estuary Ramsar site

Coastal Access: Felixstowe Ferry to Bawdsey - Habitats Regulations Assessment

Map 1. Extent of Deben Estuary SPA and Deben Estuary Ramsar



This assessment should be read alongside Natural England's related Coastal Access Reports (follow link below) **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/collections/england-coast-path-felixstowe-ferry-to-bawdsey

ii) Background

The Felixstowe Ferry to Bawdsey stretch of the England Coast Path takes in the majority of the Deben Estuary going inland on the estuary to Wilford Bridge near Woodbridge and returning out to the coast at Bawdsey.

The estuary, which extends south eastward is approximately 18km in length and is relatively sheltered, narrow and shallow. Most of the surrounding area is agricultural in nature with much of the outer estuary flanked by low-lying grazing marshes.

The estuary is part of the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty (AONB) and is protected under European Union (EU) and UK law.

The European sites relevant to this assessment are the Deben Estuary SPA and the Deben Estuary Ramsar site, the boundaries of which mirror each other exactly (Map 1).

These designated sites include the length of the Deben Estuary from Felixstowe Ferry and Bawsdey at the mouth of the estuary inland to Ufford Mill and the hamlet of Bromesgrove. The Deben Estuary Site of Special Scientific Interest boundary also mirrors the boundaries of the SPA and Ramsar site.

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

Table i). Summary of the main wildlife interest

Interest	Description
Non-breeding (nb) dark bellied brent geese	The Deben Estuary European sites support internationally important numbers of dark-bellied brent goose, a regularly occurring migratory species. Their number represents 2.1% of the British wintering population, and 1.1% of the north-west European population [REF 2]. The estuary provides important roosting, feeding, loafing and bathing habitat for the geese during the winter. Dark-bellied brent geese roost along both banks; particularly the southern part of the estuary near the mouth. The surrounding land, such as Kirton Marshes and Ramsholt, Alderton and Bawdsey Marshes, also provides important roosting and feeding grounds, especially during high tide. In fact, dark bellied brent geese mainly use the estuary itself for loafing and bathing. [REF 3]. During late winter and spring, the geese feed upon the newly emerging, young, nutritious plants on the saltmarsh, which provide an important high value food source prior to migration.
Non-breeding (nb) avocet	The Deben Estuary SPA supports internationally important numbers of avocet. At the time of classification (1996) the site regularly supported 57 individuals during the wintering period, representing 11.4% of the British wintering population [REF 4]. The site has followed regional and national trends experiencing an overall increase in numbers over the last ten years. Although avocets are widely distributed along the estuary when feeding at low tide, at high tide they tend to roost along the edge of the saltmarsh by Falkenham Creek

	and on the saltmarsh in front of Ramsholt (opposite Falkenham Creek). They can also be present, but to a lesser degree at Martlesham Creek.
Narrow mouthed whorl snail	Internationally important numbers of the mollusc, narrow-mouthed whorl snail *Vertigo angustior* (Habitats Directive Annex II (S1014); British Red Data Book Endangered) have been recorded at various locations on the Deben Estuary. The mollusc is a Qualifying Feature of the Deben Estuary Ramsar site. Martlesham Creek was recorded as one of only approximately fourteen sites in Britain where this species survived, however, it has been recorded as no longer present at that location [REF 5]. The survey of 2014 recorded their presence on the Deben Estuary although under serious threat at a number of locations [REF 6]

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 proposal is 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 the Deben Estuary has been the possible impact of recreational activities on, non-breeding waterbirds and waders in the form of disturbance and physical damage due to trampling on their supporting habitat, and direct

destruction of or damage to the habitat of the narrow mouthed whorl snail. Our aim in developing proposals for the Deben Estuary has been to secure and enhance opportunities for people to enjoy their visit whilst ensuring appropriate protection for designated habitats and species.

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

- To avoid exacerbating issues at sensitive locations by making use of established walked routes and Public Rights of Way (PRoW)
- Where there is no suitable established and regularly used coastal route, to develop proposals that take account of risks to sensitive nature conservation features and incorporate mitigation as necessary in our proposals
- To clarify when, where and how people may access the foreshore and other parts of the coastal margin on foot for recreational purposes
- To 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 the Deben Estuary for wintering and passage waterbirds and how people can help efforts to protect them

v) Conclusion

We have considered whether our detailed proposals for coastal access between Felixstowe Ferry and Bawdsey might have an impact on the Deben Estuary SPA and Ramsar site. In Part C of this assessment we identify some possible risks to certain of the 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 either site. These measures are summarised in Table ii).

Table ii). Summary of risks and consequent mitigation built in to the England Coast Path proposals

Risk to conservation objectives	Relevant design features of the access proposal
Avocet *Recurvirostra avosetta* (nb); Dark-bellied brent goose *Branta bernicla bernicla* (nb); Disturbance The Conservation Objectives Supplementary Advice and advice on sensitivity to operations records that, the evidence base suggests these features are sensitive to the pressure of human disturbance. This proposal could therefore impact upon the Conservation Objectives for these features.	Route Alignment • A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks • The trail is aligned away from the shore in certain sections to where it is deemed the least impactful to the designated features • A seasonal alternative route, off the seawall, has been aligned in the folding around Falkenham Creek

The level of risk will vary along the route and will be higher where the access proposal is likely to bring people close to places on which birds depend including high tide roost sites, and known important breeding and feeding areas. The risk of disturbance is increased on rising tides when birds are forced to feed closer to seawalls and the trail/footpath. The nature, scale, timing and duration of construction and or installation works could result in bird disturbance sufficient to disrupt normal behaviours and/or distribution of birds within the site. The establishment works that this proposal would involve could therefore impact upon the Conservation Objectives for this feature.	• The trail is aligned in the folding for the full length of the new stretch of public access between Ramsholt and Ferry Road, Bawdsey • New dog proof fencing will be erected to prevent access on to the seawall between Ramsholt and Ferry Road, Bawdsey and maintained into the future for as long as it is needed • New advisory and information signs will be erected in key locations. These signs will raise awareness and inform users about waterbirds and the sensitivities of wildlife to disturbance and its consequences. The desired behaviour that can be adopted, to ensure that they do not create an impact, will be described • Signs will be erected strategically, asking that dogs are kept under control at all times • Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow • The trail and associated infrastructure will be well maintained • Local Authority and contractors will adhere to the mitigation measures set out in Table 6 section D3.1 of this assessment <u>Coastal Margin</u> • Under section 25A of the Countryside Rights of Way Act 2000 (CROW) [REF 7] access will be excluded to the vast majority of the saltmarsh and mudflat. It has been established that these areas are unsuitable for public access (as set out in section 7.15 of the Coastal Access Scheme [REF 1]) • Under section 26(3)(a) of CROW [REF 8], for the purpose of conserving nature conservation interests, there will be no new access rights to the coastal margin between the livestock fence on the seaward side of the trail and the boundary of the section 25A of CROW exclusion (includes the seawall) for the full length of the section between Ramsholt and Ferry Road Bawdsey

Avocet *Recurvirostra avosetta* (nb); Dark-bellied brent goose *Branta bernicla bernicla* (nb); Supporting habitat Loss or damage due to trampling: The specific attributes of each supporting habitat may include vegetation characteristics and structure, water depth, food availability, connectivity between nesting, roosting and feeding areas both within and outside the SPA. The restoration and/or maintenance of the structure and function of the habitat is key to the site's ability to support and sustain the qualifying features. Damage to or loss of the supporting habitat, by definition could impact directly on the long term viability of this feature and thereby pose a risk to the Conservation Objectives Taking into account the dynamic nature of the estuary and the pattern of accretion/erosion, the objective is to avoid deterioration of the extent, distribution and function of the supporting habitats from their current level, as indicated by relevant data.	Route Alignment 1. A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks 2. The trail is aligned away from the shore in certain sections to where it is deemed the least impactful to the designated features 3. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow 4. The trail will offer a viable user friendly alternative to the currently available, but not fully passable, Public Right of Way (PRoW) near Hemley, which passes over or close to supporting habitat 5. The trail and associated infrastructure will be well maintained 6. Local Authority and contractors will adhere to the mitigation measures set out in Table 6 section D3.1 of this assessment Coastal Margin • Under section 25A of CROW access will be excluded to the vast majority of the saltmarsh and mudflat. It has been established that these areas are unsuitable for public access • Under section 26(3)(a) of CROW [REF 8], for the purpose of conserving nature there will be no new access rights to the coastal margin between the livestock fence on the seaward side of the trail and the boundary of the section 25A of CROW exclusion (includes the seawall) for the full length of the section between Ramsholt and Ferry Road Bawdsey)
Avocet *Recurvirostra avosetta* (nb); Dark-bellied brent goose *Branta bernicla bernicla* (nb); Narrow mouthed whorl snail *Vertigo angustior;* Loss of supporting habitat through the installation of access management infrastructure. There is a potential risk to the Conservation Objectives where there is a permanent and irreversible loss of the extent of supporting habitat.	Route Alignment 7. None of the new infrastructure will be placed on land within the SPA or Ramsar site boundary 8. None of the new infrastructure will be placed on functionally linked land

Loss of supporting habitat, by definition could impact directly on the long term viability of this feature and thereby the conservation objectives. This project proposes the installation of new or replacement infrastructure near supporting habitat.	9. Local Authority and contractors will adhere to the mitigation measure set out in Table 6 section D3.1 of this assessment
Narrow-mouthed whorl snail *Vertigo angustior* Loss of or damage to feature or its supporting habitat due to trampling on the trail or the coastal margin. This feature could be damaged or lost if trail users access the narrow transitional habitats that it still occupies. The feature is declining on the estuary due to coastal squeeze. The feature is therefore susceptible to the impacts of changes in access which could allow a new risk of loss in abundance due to trampling. Also, as it is possible that walkers making use of the coastal margin could encroach on the supporting habitat of this mollusc, it can be concluded that this could present a new risk of loss of, or damage to, supporting habitat. Therefore it can be concluded that the proposal could pose a risk to the Conservation Objectives of the Ramsar site	Route Alignment 1. A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks 2. The trail is aligned away from the shore in certain sections to where it is deemed the least impactful to designated features 3. The proposed trail alignment does not track on areas where the snail has been recorded 4. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow **5.** The trail and associated infrastructure will be well maintained 6. Local Authority and contractors will adhere to the mitigation measure set out Table 6 section D3.1 of this assessment Coastal Margin 7. Under section 26(3)(a) of CROW [REF 8], for the purpose of conserving nature conservation interests of the land in question, there will be no new access rights to the coastal margin between Wilford Bridge and Little Haugh taking in Sutton Hoo where the snail has been recorded 8. Under section 25A of CROW access will be excluded to the vast majority of the saltmarsh and mudflat. It has been established that these areas are unsuitable for public access.
Dark-bellied brent goose *Branta bernicla bernicla* (nb): Disturbance on functionally linked land The risk of disturbance to feeding, preening and roosting birds on functionally linked land i.e. land nearby but outside the boundary of the SPA/Ramsar site and used by a Qualifying Feature of the European sites, has been identified.	Route Alignment 10. The trail will be aligned in the folding between Ramsholt and Ferry Road, Bawdsey, which will prevent 'skylining'. (Skylining occurs where people are on higher ground and are

The trail, using existing PRoWs and new routes, passes close to areas which have been identified as functionally linked land with the risk of disturbance to this qualifying feature of the European sites. The nature, scale, timing and duration of <u>construction and or installation works</u> could result in bird disturbance on functionally linked land sufficient to disrupt normal behaviours and/or distribution of birds within the site. The establishment works that this proposal would involve could therefore impact upon the Conservation Objectives for this feature.	very visible against the backdrop of the sky). 11. Dog proof fencing or gates (as appropriate) will be erected to block any openings on to the grass, arable and marshland between Ramsholt and Ferry Road, Bawdsey on the landward side of the trail 12. A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks 13. New advisory and information signs will be erected in key locations. These signs will raise awareness and inform users about waterbirds and the sensitivities of wildlife to disturbance and its consequences. Also the desired behaviour that can be adopted to ensure that they do not create an impact, will also be described 14. Signs will be erected strategically, asking that dogs are kept under control at all times 15. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow 16. The trail and associated infrastructure will be well maintained 17. Local Authority and contractors will adhere to the mitigation measure set out Table 6 section D3.1 of this assessment <u>Coastal Margin</u> • No Functionally linked land is included within the coastal margin

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 Suffolk County Council, East Suffolk Council, the Environment Agency, Suffolk Wildlife Trust, Suffolk Coasts and Heaths Area of Outstanding Natural Beauty unit, the Ramblers, the Deben Estuary Partnership, the River Deben Association, the National Trust, the RSPB, the Waldringfield Wildlife Group, and to other organisations and local experts whose contributions and advice have helped to inform development of our proposals.

Special thanks are due to the following individuals, for their generous contributions of time and invaluable knowledge of the dynamics of local bird populations: Nick Mason, Andrew Excell and James Meyer.

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.

A2. Details of the plan or project

(1) Ramsar sites are treated in the same way by UK government policy

This assessment considers Natural England's proposals for coastal access along the stretch of coast between Felixstowe Ferry and Bawdsey. 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 part of the Felixstowe Ferry to Bawdsey stretch in question

Our proposal for coastal access has two main components:

- Alignment of the England Coast Path
- Designation of coastal margin

England Coast Path (ECP)

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 ECP coastal path will be able to 'roll back' as changes in this dynamic coastline occur over time, thereby 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 seaward 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 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 note for this assessment is that the majority of saltmarsh and mudflat within the Deben Estuary is considered unsuitable for public access and will be excluded at all times, under section 25A of CROW, from the new coastal access rights, regardless of any other considerations.

The conclusion can therefore be drawn that the ECP access proposal will not have a direct impact (e.g. through encroachment of trail users) on the nature conservation features of those areas that are excluded from the new coastal access rights. Possible indirect impacts will be explored further within this assessment

Note: Should the exclusion under section 25A of CROW, of all or any part of the areas currently excluded, become unnecessary at any time in the future, we will consider the need for further measures to protect the conservation features, which are currently protected as a secondary consequence of the section 25A exclusion under CROW. Such measures would include restriction or exclusion of access under section 26(3)(a) of CROW

Maintenance of the ECP

The access proposals provide for the permanent establishment of a path and associated infrastructure, including additional mitigation measures referred to in this assessment and described in the access proposals. The England Coast Path will be part of the National Trails family of routes, for which there are national quality standards. Delivery is by local partnerships and there is regular reporting and scrutiny of key performance indicators, including the condition of the trail.

Responding to future change

The legal framework that underpins coastal access allows for adaptation in light of future change. In such circumstances Natural England has powers to change the route of the trail and limit access rights over the coastal margin in ways that were not originally envisaged. These new powers can be used, as necessary, alongside informal management techniques and other measures to ensure that the integrity of the site is maintained in light of unforeseen future change.

Establishment of the trail

Establishment works to make the trail fit for use 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. The cost of establishment works will be met by Natural England. Works on the ground to implement the proposals will be carried out by Suffolk County Council, 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.

PART B: Information about the European Sites which could be affected

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

This stretch of the ECP will follow the Deben Estuary from its mouth at Felixstowe Ferry inland to Wilford Bridge, near the town of Woodbridge, and it then follows the eastern shore as far as Bawdsey where it will join with the Bawdsey to Aldeburgh stretch of the ECP. The Deben Estuary is covered by the following European site designations:

- The Deben Estuary SPA (978.93ha) (Map 1)

The Deben Estuary SPA, designated in 1996, is located in the east of England within the county of Suffolk. The estuary, which extends south eastward for approximately 18km is relatively sheltered, narrow and shallow and is tidal as far as Wilford Bridge in Woodbridge. The majority of the intertidal area is constrained by seawalls. [REF 2]

The estuary mouth which is characterised and shielded by shifting gravel and sand banks, joins the North Sea between the villages of Felixstowe Ferry and Bawdsey. The mouth of the estuary is also its narrowest part.

Mudflats flank the length of the estuary and support diverse invertebrate communities, including *Hydrobia* and *Corophium*, as well as several patches of eel grass, *Zostera* spp. Some areas of sandflats occur where erosion of exposed red crag has occurred.

Saltmarsh, lying beyond the mudflats, hosts the most diverse saltmarsh community in Suffolk
The saltmarsh community at the Deben Estuary is one of the most complete in Suffolk, consisting of 40% of the county's saltmarsh [REF 9]. Low marsh communities, such as sea aster, glasswort and sea purslane, are prevalent at the head of the estuary, whilst mid-marsh communities are located at the lower end of the estuary, consisting of species such as sea lavender, sea arrow grass and sea plantain. Some areas of upper marsh also occur.

The estuary holds a range of swamp communities that fringe the estuary, and occasionally form larger stands. In general, these are dominated by *Phragmites australis*.

The qualifying features of the SPA are:

  - Dark-bellied brent goose (nb) (*Branta bernicula bernicula*). At the time of classification the site regularly supported 1,889 individuals (four year peak mean 1988/89 to 1992/93, no count 90/91) during the wintering period, representing 2.1% of the British wintering population, and 1.1% of the north-west European population [REF 4]
  - Avocet (nb) (*Recurvirostra avosetta*). At the time of classification the site regularly supported 57 individuals during the wintering period, representing 11.4% of the British wintering population [REF 4]

- The Deben Estuary Ramsar site (978.39)(Map 1)

The Deben Estuary Ramsar site, also designated in 1996, extends to the same area as the SPA with its boundary mirroring that of the SPA exactly.

Its designation is based on its recognition as an internationally important wetland supporting vulnerable, endangered, or critically endangered species or threatened ecological communities. The site lists two qualifying features:

- Narrow-mouthed whorl snail *Vertigo angustior*, an Annex II (S1014); British Red Data Book Endangered species. Martlesham Creek was one of only about fourteen sites in Britain where his species survived at time of designation although it is now thought to have been lost to that particular location but has been recorded at a number of other locations including Bromeswell Green Nature Reserve and Sutton Hoo. [REF 6]

- Dark-bellied brent goose (nb) (*Branta bernicula bernicula*) as described above The Deben Estuary Ramsar Information Sheet quotes the 5 year peak mean from 1998/9 – 2002/3 as 1953 individuals, representing an average of 1.9% of the GB population [REF 10]

The ECP trail will cross Wilford Bridge and then be aligned as far as Bawdsey however the areas of the SPA and the Ramsar site extend further inland to near Ufford Mill and the village of Bromeswell.

Table 1. Qualifying Features

Qualifying feature	**Deben Estuary SPA**	**Deben Estuary Ramsar Site**
A132 Avocet *Recurvirostra avosetta* (nb)	√	
A675 Dark-bellied brent goose *Branta bernicla bernicla* (nb)	√ (added 2012 following review)	√
S1014 Narrow-mouthed whorl snail *Vertigo angustior*		√

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.

https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=deben&countyCode=&responsiblePerson=&DesignationType=All

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 for appropriate assessment

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.

The assessment of likely significant effect on the qualifying features of the European sites, dark-bellied brent goose (nb), avocet (nb) and the narrow-mouthed whorl snail, is set out in Table 2

Table 2. Assessment of likely significant effects alone

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site Conservation Objectives	LSE alone?
Avocet (nb); Dark-bellied brent goose (nb)	Disturbance of non-breeding avocet and non-breeding dark bellied brent goose by users of the trail or due to use of the newly created legal right of access to the coastal margin. The creation of legal right of access to the coastal margin seaward of the trail could result in access to areas not previously permitted, if they are not excluded under section 25A of CROW	Sensitive: The objective is to reduce the frequency, duration and intensity of disturbance affecting roosting and foraging birds. The nature, scale, timing and duration of some human activities can result in bird disturbance sufficient to disrupt normal behaviours and/or distribution of birds at a level that may substantially impact their behaviours.	Evidence (as recorded in The Conservation Objectives Supplementary Advice and advice on Sensitivity to Operations [REF 2]) suggests the feature is sensitive to the pressure of human disturbance. There is a risk therefore that this proposal could impact upon the Conservation Objectives for this feature. The level of risk will vary along the route and will be higher where the access proposals are likely to bring people close to places on which birds depend, including undisturbed high tide roost sites and important feeding areas. The risk of disturbance is increased on rising tides when birds are forced to feed closer to seawalls and the trail or footpaths. Newly created access to areas where exclusions under section 25A of CROW are not in place could bring disturbance closer to the key locations	Yes
Avocet (nb); Dark bellied brent goose (nb)	Trampling: Loss of, or damage to, supporting habitat	Sensitive: The conservation objective is to maintain the extent, distribution and availability of suitable habitat (either within or outside the site boundary) which supports the features for all necessary stages of the non-breeding/wintering period (moulting, roosting, loafing, feeding) at Intertidal sand and muddy	Taking in to account the dynamic nature of the estuary and the pattern of accretion/erosion, the objective is to avoid deterioration of the extent, distribution and function of the supporting habitats from their level at designation, as indicated by relevant data. The specific attributes of each supporting habitat may	Yes

		sand (2.7 ha), Intertidal mud (507 ha) and saltmarsh (38.94 ha), which is not feature specific but is an aggregation of the following saltmarsh features: *Salicornia* and other annuals colonising mud and sand, Atlantic salt meadows *Glauco-puccinellietalia maritimae,* and Spartina swards *Spartinion maritimae.* These supporting habitats not covered at low tide could be sensitive to changes in access that lead to increased trampling. The creation of Coastal Margin seaward of the trail will result in a legal right of access to areas not previously permitted, if those areas are not excluded by direction under section 25A of CROW. Trampling could result in: structural damage, compaction, erosion and loss of or reduction in effectiveness of habitat This sensitivity applies to supporting habitat which lies outside the site boundary also.	include vegetation characteristics and structure, water depth, food availability, connectivity between roosting and feeding areas both within and outside the SPA/Ramsar site. The maintenance of the structure and function of the habitat is key to the site's ability to support and sustain the feature. Loss of or damage to the supporting habitat could impact directly on the long term viability of this feature and thereby have the potential to pose a risk to the Conservation Objectives	
Avocet (nb); Dark bellied brent goose (nb)	Loss of supporting habitat through the installation of access management infrastructure	Sensitive: The supporting habitats of the qualifying features may be permanently lost due to the installation of new access management infrastructure.	There is a potential risk to the Conservation Objectives where there is a permanent and irreversible loss of extent of supporting habitat. This project proposes the installation of new and replacement infrastructure on or near Qualifying Feature supporting habitat. Loss of supporting habitat, by definition could impact directly on the long term	Yes

			viability of this feature and thereby the conservation objectives.	
Avocet (nb); Dark bellied brent goose (nb)	Disturbance of features during the construction or installation of route infrastructure	Sensitive: The Conservation Objective target is to reduce the frequency, duration and/or intensity of disturbance of birds. The nature, scale, timing and duration of construction and or installation works could result in bird disturbance sufficient to disrupt normal behaviours and/or distribution of birds within the site.	Evidence (as recorded in The Conservation Objectives Supplementary Advice and advice on Sensitivity to Operations) suggests the feature is sensitive to human disturbance. The establishment works that this proposal would involve could therefore impact upon the Conservation Objectives for this feature.	Yes
Dark bellied brent goose (nb)	Disturbance of roosting and/or feeding birds on functionally linked land i.e. Agricultural fields nearby but outside the boundary of the SPA/Ramsar site and used by qualifying features of the European sites	Sensitive: There are areas of arable, grass and marshland in the vicinity of the estuary, which are acknowledged as functionally linked land. This is because the areas are used by foraging, roosting and preening dark-bellied brent geese, which are qualifying features of the European sites. The ECP alignment and coastal margin access rights have the potential to create a disturbance risk to birds when making use of this land.	As a result of the proposed new sections of trail and the alignment of the trail on existing PRoW, walkers and walkers with dogs will be brought past functionally linked locations resulting in the potential for disturbance.	Yes
Mollusc: Narrow-mouthed small whorl snail	Trampling: Loss of feature due to trampling on the trail or within the coastal margin Human recreational activities are	Sensitive: This feature could be damaged or lost if trail users access the narrow transitional habitats that it still occupies. Human recreational activities are noted as a threat to the snail, however the main reason for its decline on the estuary is loss of habitat due to coastal squeeze, i.e. the combined effects of rising sea levels and physical	Since the trail passes through areas where the snail has been recorded and since it is possible that walkers making use of the coastal margin could encroach on the preferred habitat of this mollusc, it can be concluded that there is a risk to this qualifying feature of the Ramsar site.	Yes

	noted as a threat to the snail [Abrehart Ecology (2) pers.comm]	barriers such as the seawall, meaning moving to alternative habitat is not available. The feature is therefore susceptible to the impacts of changes in access which could allow trampling on the feature.		
Mollusc: Narrow-mouthed small whorl snail	Trampling: Loss of, or damage to, supporting habitat	The supporting habitat of this feature could be sensitive to damage or loss if walkers access the narrow transitional habitats that it still occupies. The main reason for its decline on the estuary is loss of habitat due to coastal squeeze, i.e. the combined effects of rising sea levels and physical barriers such as the seawall, meaning alternative habitat is not available. The snail has been recorded as present at Sutton Hoo on the transitional grasslands at the upper saltmarsh. This latter area is within the seaward coastal access margin of the proposed alignment of the trail.	There is a risk if an increase in footfall due to this proposal caused damage to, or hastened the loss of, this grassland which is already dwindling as a result of coastal squeeze.	Yes
Mollusc: Narrow-mouthed small whorl snail	Loss of feature through the installation of access management infrastructure	Sensitive: Individuals of this feature could be permanently lost due to the installation of new access management infrastructure directly crushing the feature	There is a potential risk to the Conservation Objectives where there is a permanent loss of abundance of the feature	Yes
Mollusc: Narrow-mouthed small whorl snail	Loss of or damage to supporting habitat through the installation of access management infrastructure	Sensitive: Extent of the supporting habitats of this Qualifying Feature may be permanently lost due to the installation of new access management infrastructure.	There is a potential risk to the Conservation Objectives where there is a permanent and irreversible loss of the extent of supporting habitat.	Yes

(2) Toby Abrehart Ecological Consultants; Abrehart Ecology, Pound Farm, Low Road, Great Glemham. Suffolk. IP7 2DQ.

Conclusion:

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

- Avocet (nb)
- Dark-bellied brent goose (nb)
- Narrow-mouthed whorl snail

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.

Further to the risks identified as being significant alone (in C2.1), it is considered that 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. It has therefore been excluded, on the basis of objective information, that the project is likely to have a significant effect in-combination with other proposed plans or projects.

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 appropriate assessment of the project 'alone' is required.

PART D: Appropriate Assessment and Conclusions on Site Integrity

D1. Scope of Appropriate Assessment

Note on terminology used within this assessment:

- European Sites: Refers to both the Deben Estuary SPA and the Deben Estuary Ramsar site
- Seawall: Describes the earth banks protecting low-lying land from tidal flooding
- Folding: Describes the strip of level ground adjacent to a seawall on its landward side
- Borrow dyke: Ditch landward of the seawall

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 Sites 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 3. Scope of Appropriate Assessment

Environmental pressure	Qualifying Feature(s) affected	Risk to Conservation Objectives
Disturbance	Avocet *Recurvirostra avosetta* (nb) Dark-bellied brent goose *Branta bernicla bernicla;* (nb)	The nature, scale, timing and duration of some human activities can result in bird disturbance, that is, any human-induced activity sufficient to disrupt normal behaviours and/or distribution of birds at a level that may substantially affect their behaviour, and consequently affect the long-term viability of the population. Human disturbance associated with this proposal may take a variety of forms including noise, presence of people, animals and structures. Such disturbance can, for example, result in changes to feeding or roosting behaviour, increases in energy expenditure due to increased flight and desertion of supporting habitat (both within or outside the designated site boundary). This disturbance may reduce the availability of suitable habitat for use as birds are displaced and their distribution within the site contracts.

		Disturbance of birds due to recreational activities as a result of the ECP proposal, could lead to reduction in population and/or contraction in the distribution of the qualifying features within the site. Disturbance of birds due to the nature, scale, timing and duration of construction and or installation works could be sufficient to disrupt normal behaviours and/or distribution of birds within the site. Overall, disturbance poses a potential risk to the number and distribution of these qualifying features and consequently their long-term viability which is counter to the Conservation Objectives
Trampling (Loss of supporting habitat)	Avocet *Recurvirostra avosetta* (nb) Dark-bellied brent goose *Branta bernicla bernicla* (nb) Narrow-mouthed whorl snail *Vertigo angustior*	The alignment of the trail of this ECP stretch takes walkers close to and across what may be supporting habitat. In addition, the creation of coastal margin seaward of the trail would permit physical access on to supporting habitat recorded as, saltmarsh and mudflats, where land is not excluded by direction under section 25A of CROW. Loss of the extent, distribution and availability of suitable habitat for avocet (nb), dark-bellied brent geese (nb) and for the narrow -mouthed whorl snail could present a direct risk to the Conservation Objectives. The Conservation Objectives for the qualifying features are to maintain or restore the extent of supporting habitats and their range in order to maintain the populations
Trampling (Loss of feature)	Narrow-mouthed whorl snail *Vertigo angustior*	The alignment of the trail of this ECP stretch takes walkers close to the recorded location of this feature. In addition, the creation of coastal margin seaward of the trail would permit physical access on to the area where this feature has been recorded. There is a risk that increased footfall within that location could cause loss of the feature.

Installation of access management infrastructure (Loss of supporting habitat)	Avocet *Recurvirostra avosetta* (nb) Dark-bellied brent goose *Branta bernicla bernicla* (nb) Narrow-mouthed whorl snail *Vertigo angustior*	The installation of new ECP infrastructure has the potential to result in the permanent loss of supporting habitat. Loss of the extent, distribution and availability of suitable habitat for all behaviours of the non-breeding/wintering period (moulting, roosting, loafing and feeding) will present a direct risk to the Conservation Objective of the avocet and dark bellied brent goose, which are, to maintain or restore the extent of supporting habitats and their range in order to maintain the population. Loss of extent of the supporting habitat of the narrow- mouthed whorl snail could lead to its direct decline, counter to the Conservation Objectives, especially as its habitat is already recorded as being lost due to coastal squeeze
Disturbance on functionally linked land	Dark-bellied brent goose *Branta bernicla bernicla* (nb)	The nature, scale, timing and duration of some human activities can result in bird disturbance, that is, any human-induced activity sufficient to disrupt normal behaviours and/or distribution of birds at a level that may substantially affect their behaviour, and consequently affect the long-term viability of the population. Human disturbance associated with this proposal may take a variety of forms including noise, presence of people, animals and structures. Such disturbance can, for example, result in changes to feeding or roosting behaviour, increases in energy expenditure due to increased flight, reduced fitness and desertion of supporting habitat outside the designated site boundary. This disturbance may reduce the availability of the functionally linked land for use as birds are displaced. Disturbance of birds on functionally linked land due to recreational activities as a result of the ECP proposal, could lead to reduction in population and/or contraction in the distribution of the qualifying features as they abandon the functionally linked land. The nature, scale, timing and duration of construction and or installation works could result in bird disturbance sufficient to disrupt

		normal behaviours and/or distribution of birds on the functionally linked land Overall, disturbance poses a potential risk to the number and distribution of these qualifying features and consequently their long-term viability which is counter to the Conservation Objectives

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

D2.1 Deben Estuary Overview

The Deben Estuary is part of the Deben Estuary SPA and Ramsar Site. The SPA was classified in 1996 and reviewed in 2001 with a resulting change in qualifying features in 2012 to include the dark-bellied brent goose. The Deben Estuary has had Ramsar site status since 1996.

The estuary is never more than 1.2km wide. As it passes through Woodbridge and Martlesham Creek it is particularly narrow, being less than 200m wide. The widest part of the estuary is just north of Waldringfield with the mud in front of The Tips and The Hams being extensive at low tide. There is an island, covered on the highest tides opposite Waldringfield with a channel passable by sailing boats behind it at high tide.

Settlements include Woodbridge as the largest at the northern end, and the main villages of Waldringfield, Hemley and Felixstowe Ferry on the western shore. The smaller settlements of Ramsholt and Bawdsey are along the east shore.

Suffolk's landscapes and heritage are recognised as the foundation of the County's tourism industry with the Suffolk Growth Strategy [REF 11] placing emphasis on the development of green economic growth that protects natural assets and environmental services.

The estuary is valued by, and popular with, local communities and visitors alike for recreational activities including walking and dog walking with a number of existing long-distance and circular trails. PRoWs give access to approximately 80% of the estuary. Sections of the Fynn Valley Walk, the Sandlings Walk and the Suffolk Coast Path all follow sections of the estuary. The estuary is also popular for bird watching, family visits and various water sports including sailing and paddle boarding. These activities are supported by marinas, boat yards, local clubs and societies. The attractive and varied landscape and opportunities for quiet enjoyment, as well as active sports, make the Suffolk coast an attractive place to live and work.

The Deben Estuary Visitor survey [REF 12] finds that just over half for the people questioned like the peace and tranquillity of the area and almost as many value the quality of the natural environment.

The open estuarine landscape and the varied wildlife, historic features and attractive villages are a draw for both tourists and as a place to live. Woodbridge, Martlesham and Waldringfield, are increasingly popular in the summer months and are becoming visitor 'hotspots' as well as centres of housing development.

The Deben Estuary Plan (DEP) notes that the National Trust's Sutton Hoo estate which includes the Anglo Saxon burial ground attracts over 80,000 visitors a year [REF 13]. Bawdsey is also a tourist draw as the birth place of Radar and for its two Martello towers.

In addition to tourism the main business activities on the estuary are based around the land and the sea. The estuary and the immediately surrounding land supports agriculture, (particularly vegetable growing on the light soils, which, however, are dependent upon irrigation) and specialist marine companies. Both make a significant direct and indirect contribution to the identity of the river and the local economy.

Recreation/tourism, agriculture and marine industries are all dependent upon and based in the natural environment. The DEP recognises that the sustainability of the estuary economy requires consideration of the natural environment. [REF 13]. The DEP states that in order to sustain the attributes that attract tourists to the area a balance must be struck between the pressure of increased numbers of visitors and the need to safeguard the environment.

In addition to the role that the landscape and environment plays as a whole, the Deben Estuary is internationally important for wildlife with the dark-bellied brent goose, avocet and narrow-mouthed whorl snail identified as qualifying features of the European sites and of national and international importance.

As Councils respond to the demand for increased housing provision and the need for economic growth in the form of jobs, commerce and industry, communities in the wider Suffolk area and close to the Deben Estuary are expanding with new homes being proposed and built.

The final draft of the East Suffolk District Council Local Plan (ESDC)[REF 14] (anticipated adoption Spring 2020) records the housing requirement across the Ipswich Strategic Planning Area for the period 2018 to 2036 as 37,278 with the Suffolk Coastal area (Felixstowe to Southwold including the Deben Estuary) contributing 10, 476 of this number.

The ESDC is aware that the distribution of growth proposed by the Local Plan along with developments that come forward over the plan period can have an impact on European Sites. They acknowledge that the impact is primarily in relation to an increase in disturbance to wildlife linked to people walking dogs together with increased recreational use of estuaries from water based activities [REF 14].

The Local Plan has been assessed through the Habitats Directive formal process [REF 15]. As understood in the local plan, the assessment concluded that visitor numbers to the Deben Estuary

will increase as a result of growth in the Ipswich Policy Area (3) and that increase could adversely impact the SPA and Ramsar site.

Measures to mitigate any such potential impacts are set out in detail in the Suffolk Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) [REF 16]. RAMS has been taken in to account in the preparation of the Felixstowe Ferry to Bawdsey Access Assessment [REF 17].

In addition to these physical pressures, the estuaries are vulnerable to the potential impact of climate change, including possible sea level rise. The potential for large scale loss of land, saltmarsh and freshwater habitats on the East Anglian coast due to climate change has implications for both nature conservation, estuarine economies and flood risk management.

As the theme of this project is recreation, consideration of the current recreational use is highly relevant and will be the focus of this assessment.

D2.2 Avocet (nb) and dark-bellied brent geese (nb) pattern of use of the Deben Estuary

Dark-bellied brent geese (nb) and avocet (NB) use the Deben Estuary both within the European site boundaries for loafing, pre-roosting, roosting, feeding, preening and drinking and, in the case of dark-bellied brent geese, out with the boundaries also.

The pattern of use of the estuary by these two species is governed primarily by the tidal cycle, a roost may form on every tide both day and night, or only on some high tides, or seasonally. With growing frequency, patterns of use may also be driven by the levels of disturbance at individual locations on the estuary.

During neap tides, birds may roost for only a short time due to fewer feeding areas being flooded whereas, on spring tides, birds may roost for several hours while their feeding grounds remain covered and may even move on to surrounding farmland.

Roost sites on the Deben Estuary vary from sand and shingle spits, shoreline and saltmarsh to adjacent marsh, grass and arable farmland.

Dark-bellied brent geese leave the estuary in March and April and travel north to countries above the Arctic Circle which contain their breeding grounds. Birds return to the estuary in September and October. Dates for departure from, and arrival at, the estuary can be influenced by weather both in the UK and across migratory routes.

(3) The Ipswich Policy Area refers to an area of geography which includes the urban area of Ipswich Borough Council and those local communities that have a close functional relationship with Ipswich but fall within the administrative district boundaries of Babergh, Mid Suffolk and Suffolk Coastal

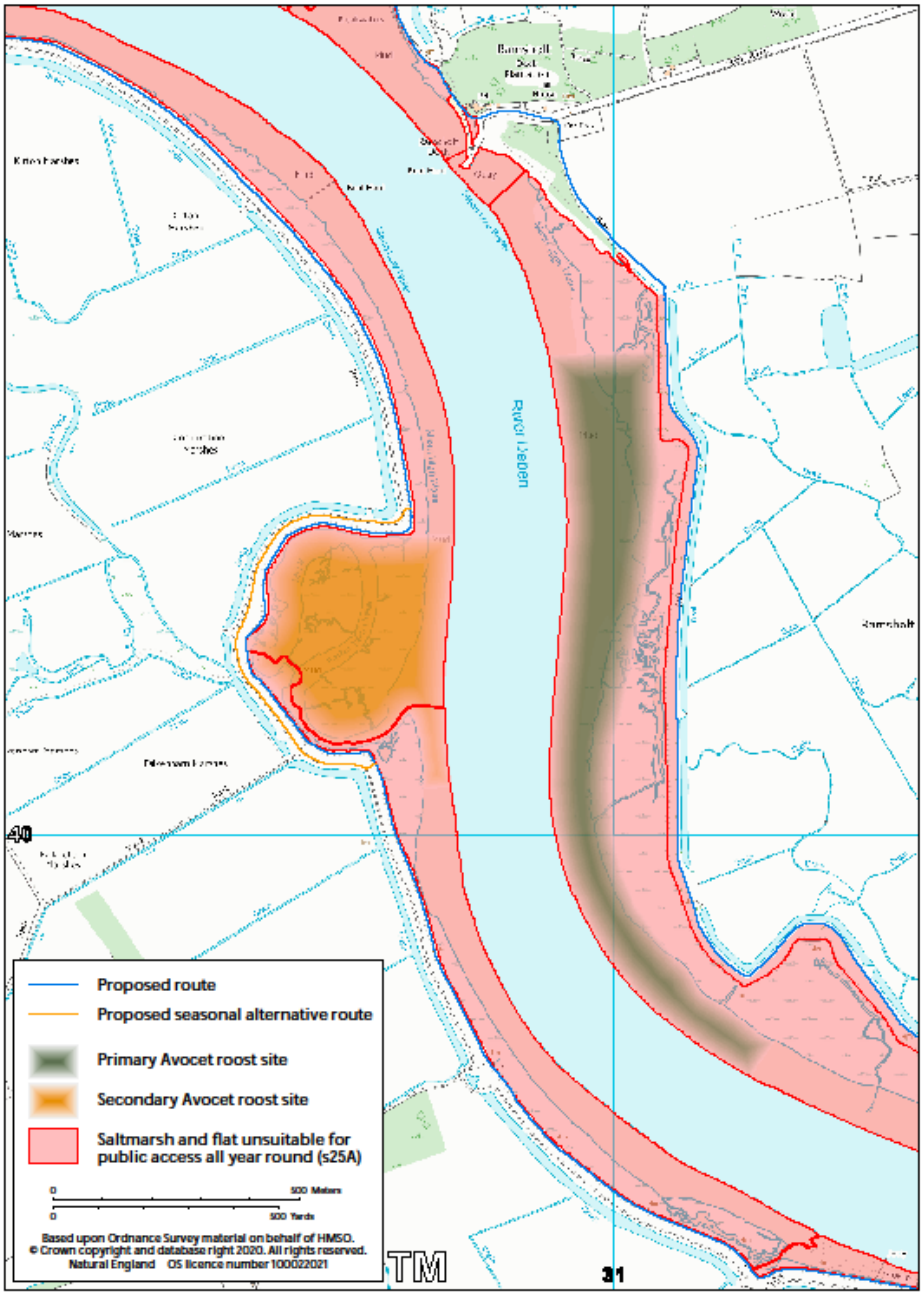
Avocet are present in increasing numbers from September with numbers declining by March. Conservation Advice Seasonality Tables [REF 18] suggest significant numbers occur September to February.

Birds use the estuary in particular ways, i.e. favouring certain areas for roosting on a high tide or when the feeding areas are completely covered moving on to surrounding arable land or wet grazing marshes. The ability to do this is fundamental to their success on the estuary and ultimately to their survival. Understanding the way that birds use the estuary allows most accurate assessments of their susceptibility to disturbance and therefore the potential impact of a project. Extract from The Deben Estuary and its hinterland: Evaluation of key areas for birds, recreational disturbance issues and opportunities for mitigation and enhancement 2014 [REF 19]

- **Locations identified as primary and secondary avocet roost sites**

Coastal Access: Felixstowe Ferry to Bawdsey - Habitats Regulations Assessment

Map 2. Primary and secondary avocet roost sites (approximate locations)

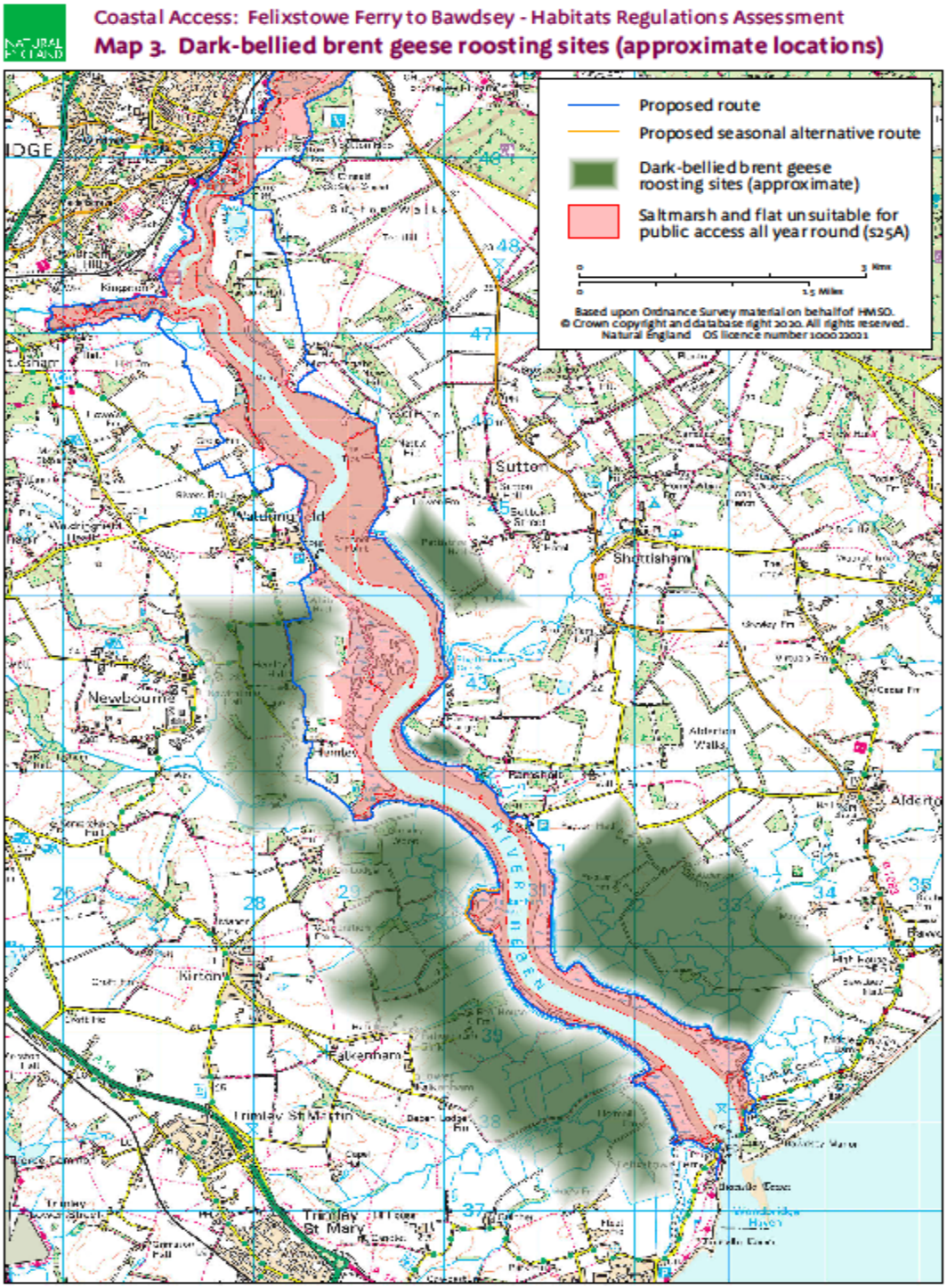


As identified in **Map 2** above, the favoured primary roost site and secondary roost sites for the avocet on the estuary are along the edge of the saltmarsh and mud near Ramsholt (opposite Falkenham Creek) and Falkenham Creek respectively. They can also be found near the sewage

works at Martlesham Creek and on the marshes south of Waldringfield. However their key locations are as on **Map 2** above.

Observer comments suggest that avocets do not use the saltmarsh, although they may shelter in the creeks during strong winds. They are usually found on the saltmarsh edge with some on mud and some in the river. When the saltmarsh is covered they are always on the water [REF 3]

- **Locations identified as dark-bellied brent geese roost sites**



Dark-bellied brent geese roost along both banks of the southern part of the estuary near the mouth, and on Ramsholt Marshes, Ardington Marshes and Bawdsey Marshes (see MAP 3). Dark-bellied brent geese also make extensive use of other surrounding agricultural land for roosting and feeding, mainly using the estuary itself for loafing and bathing [REF 3 (N.Mason pers comm)].

They use the saltmarsh to graze and in winter months, and also favour the marshes and agricultural land behind the seawall or eelgrass on the mudflats. Dark-bellied brent geese will be seen on saltmarsh areas during the spring feeding up before they migrate due to the highly nutritional plants which will begin to emerge on saltmarshes at this time [REF 20].

D2.3 Narrow-mouthed whorl snail: Locations on Deben Estuary

Narrow-mouthed whorl snail *Vertigo angustior* is a very small (1-2mm) mollusc, a member of the *Vertiginidae* family. It is restricted to damp places which are neither affected by desiccation nor frequent flooding. It inhabits short vegetation, which is often dense, at the edges of saltmarshes. It is listed as Habitats Directive Annex II (S1014); British Red Data Book Endangered. [REF 21]

Vertigo angustior is a qualifying feature of the Ramsar site. Its distribution throughout the Deben Estuary Ramsar site has altered since designation. The reason for the change in its presence and distribution is noted as the impact of climate change including higher tides and tidal surges and the related need for seawall flood defences, their presence, construction and repair [REF 6]. The result is coastal squeeze of habitat.

This snail requires a very specific balance between fresh water and saline influences. As sea levels rise and the habitat becomes more saline, the snail should be able to move up land to maintain their habitat criteria [REF 6]. However their habitat is being squeezed between increasing tide heights and surges and the barrier of the seawall so that there are now only narrow ribbons of suitable habitat remaining in certain areas of the estuary [REF 6]. In addition to loss of habitat the inundations of 2013 saw the salinity of whole areas altered to beyond levels palatable to the snail. That event wiped out populations at certain locations altogether [REF 6].

D2.4 Qualifying Features, current status and risks of the ECP proposal

D2.4.1 Avocet (nb) and Dark-bellied brent geese (nb)

D2.4.1.1 Disturbance

It is important that birds experience minimal disturbance on their roosting sites. There are a number of different potential sources of disturbance on this estuary, however, for the purpose of this assessment of a proposed recreation project, avoidance of impact by people and dogs is a key consideration.

If disturbance is repeated or continual birds may have to remain on the wing when their feeding grounds are covered with the potential negative impact on their productivity and survival. Habitats

on the Deben Estuary are generally less disturbed at night except for those that are shot over, Wildfowling (usually at dawn or dusk) is licensed between 1st October and 31st January in specific locations on the estuary

As part of the Supplementary Advice on Conservation Objectives for the Deben Estuary European marine sites [REF 2], Natural England set targets to achieve favourable condition of the SPA and Ramsar site qualifying features including avocet (nb), dark-bellied brent geese (nb) and their supporting habitats.

Supporting habitats in this context include intertidal feeding areas and high tide roosting areas on upper saltmarsh, sea banks/seawalls and nearby wet grassland and arable land. Dark-bellied brent geese sometimes roost and feed on wet grassland and arable land not part of the designated site. Where there is evidence that this takes place this functionally linked land is treated as supporting habitat in this assessment.

The attribute of disturbance at *roosting* areas is most relevant to this assessment (although not exclusively) as the vast majority of the *feeding* mudflats and saltmarsh are excluded from the access rights through direction under section 25A of CROW. The target is to achieve no significant reduction in numbers or distribution attributable to disturbance associated with this project proposal, from an established baseline.

Disturbance can be problematic because it reduces the time available to birds for resting and may increase energy expenditure, for example, if it results in flight. Repeated disturbance at a favoured feeding or roosting site may significantly reduce its function as supporting habitat and thereby the health and productivity of the birds.

Most waders and some waterbirds are considered more vulnerable to disturbance at high tide because, the available habitat is greatly reduced as the tide covers it, and many birds roost on or just above the waterline.

Conversely at low tide waterbirds are generally less vulnerable to disturbance because there is extensive feeding and resting habitat on the intertidal flats in the main estuary, which is further from places where land based recreational activity normally takes place.

There is anecdotal evidence provided by the Suffolk Wildlife Trust (SWT) that as land and water based recreation on the Deben Estuary has increased over the last decade it is causing disturbance at what had been recognised as key locations for birds on the estuary.

Waterbirds are also vulnerable to disturbance during migration when their energy reserves are depleted. There is a short period in spring, after the spring migration has finished and before the summer/autumn migration begins, when sensitivity is lower. This period of lower sensitivity can be very brief, depending upon how particular species use the site.

Overwintering avocets and dark-bellied brent geese are vulnerable to visual and noise disturbance whilst feeding and roosting on the estuary, with the main causes of disturbance being walkers, dogs, light aircraft, watersports and nearby shoots. High levels of disturbance can lead to higher energy expenditure, reduced feeding time and the forced use of sub-optimal feeding areas [REF 22]

Disturbance on the Deben Estuary is currently low and highly seasonal, with most disturbances occurring during spring and summer when recreational use of the estuary is high. Recreational usage, and therefore disturbance, is low during winter when avocet and dark-bellied brent geese are present upon the estuary. Whilst disturbance levels are currently low, populations of both species could be adversely impacted if recreational disturbance increases [REF22].

D2.4.1.2 Dark-bellied brent geese (nb): Status

Numbers regularly supported by this SPA site at time of classification are detailed above (see pg. 15) Numbers decreased to 1,620 individuals in the five year peak mean calculated 2011/12-2015/16 (excluding supplementary counts).

The WeBS Core Count(4) data for dark-bellied brent geese records an annual peak count for 2017/2018 of 1015 individuals and a five year average of 1461 (2013/2014 to 2017/2018) excluding supplementary counts. A WeBS Alert (5) was issued for dark bellied brent geese on the Deben Estuary. See excerpt from the WeBS Alert report below [REF 23]:

"-Numbers of Brent Goose (Dark-bellied - bernicla) over-wintering on Deben Estuary SPA have been stable in the medium-term having previously declined. Consequently, Alerts have been triggered for the long-term and the period since baseline. Numbers of this species over-wintering within Anglian Region have fluctuated over the long-term following a previous increase. Numbers of this species over-wintering in Great Britain have fluctuated over the long-term following a previous increase. The trend on the site does not appear to be tracking that of the either the region or the British trend. The declining proportion of the regional numbers supported by this site suggest that site-specific pressures may be affecting this species".

Table 4: Key figures from the WeBS Alert [REF 23]

Species	First Winter	Reference winter	% change short term	% change medium term	% change Long Term	Baseline winter	% change since baseline
Dark bellied brent geese	1991/1992	2016/2017	-10	-8	-48	1990/1991	-46

(4) WeBS Core Counts: The birds using the estuary in winter are regularly monitored through the Wetland Bird Survey (WeBS) Core Counts. High tide counts are undertaken each month from September through to April. Occasional Low Water counts are also undertaken as these will provide information on where birds tend to gather to feed on the exposed mud

(5) WeBS Alerts: A key use of the data collated by WeBS Core Counts is to identify and measure changes in numbers. The WeBS Alerts system identifies species that have undergone major negative changes in the short term (5 years), medium term (10 years) and long term (25 years) or from a baseline, are flagged up by the issue of an Alert. The site trends are compared with national and regional trends where possible which can be an indicator of whether the site trends are likely to be local pressures or reflections of what is happening on a regional or countrywide scale.

The conservation objective for dark-bellied brent geese (abundance) is to maintain the size of the non-breeding population at a level which is above 1,889 individuals, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.

Under Common Monitoring Standards (CMS) methods, the target has been set to 'maintain'. The most recent update (March 2018) on population at the site shows a 14% decline but this is within the realms of natural fluctuation [REF 24]. The current figure represents a 22% drop from 1889 (1988/89 to 1992/93) to 1503 (2013/2014 to 2017/2018) which justifies a cautious approach when assessing potential impacts on this Qualifying Feature.

D2.4.1.3 Avocet (nb): Status

At time of classification in 1996 the SPA's non-breeding population of avocet (*Recurvirostra avosetta*) was 57 individuals (five year peak mean 1988/89 to 1992/93) representing 11.4% of the British wintering population [REF 4]. The site has followed regional and national trends which have seen an overall increase over the last ten years. The SPA population increased to 339 individuals (5 year winter peak mean 2011 - 2016) [REF 4]. Comparisons suggest that the site population trend is in line with both the UK and regional trends.

The WeBS Core Count data for avocet records an annual peak count for 2017/2018 of 587 individuals and a five year average (2013/2014 to 2017/2018) of 415.

No WeBS Alert has been triggered for avocet, with numbers over-wintering in the Deben Estuary SPA/Ramsar site stable over the medium-term having previously increased.

Table 5: Key figures from the WeBS Alert [REF 23]

Species	First Winter	Reference winter	% change short term	% change medium term	% change Long Term	Baseline winter	% change since baseline
Avocet	1991/1992	2016/2017	-8	28	170	1990/1991	255

The avocet non breeding population abundance target is to maintain the size of the non-breeding population at a level which is above 339 individuals, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.

Natural England's Supplementary Advice [REF 24] updated in March 2018, concludes that there is evidence from surveys or monitoring that shows the feature to be in a good condition and/or currently un-impacted by anthropogenic activities.

A 'maintain' conservation objective has been set for this attribute [REF 24]

D2.4.1.4 Avocet and dark-bellied brent geese Supporting Habitat: Trampling

Supporting habitat includes all areas of mudflat, saltmarsh, transitional and marsh grasslands and arable farmland. The conservation objective target is to protect, maintain or restore this feature at this site.

As part of the Supplementary Advice on Conservation Objectives updated in 2019 [REF 25], Natural England set a generic target to 'maintain' or 'restore' supporting habitats of qualifying features. This means maintaining the attributes relating to overall extent, distribution and zonation of the component communities, species abundance, sward structure, characteristic landforms and the processes that create them.

An abundant food supply is critically important for individual's survival and the sustainability of the population. Therefore, direct or indirect impacts which may affect the distribution, abundance and availability of prey species may adversely affect the population and alter the distribution of birds throughout the site. The main food sources are found within the intertidal, saltmarsh and grass land. This target may apply to supporting habitat which also lies outside the designated sites' boundary.

During winter, dark-bellied brent geese regularly feed upon the plants and algae which grow on the mudflats, such as, green algae *Enteromorpha* spp. and several strands of sea grass, *Zostera* spp.

The surrounding agricultural land and marshes provide an abundant food supply in the form of winter-sown cereals and grasses, which are both extensively grazed, especially during high tide.

Whilst the saltmarsh is widely used for roosting and loafing it is not extensively used for feeding during the main winter period, however, once the nutritious soft-leaved plants begin to grow in early spring, the saltmarsh becomes an important food source for dark-bellied brent geese [REF 24].

Nutritious plants, such as sea aster, *Aster tripolium*, sea arrow grass, *Triglochin maritima*, sea plantain, *Plantago maritima*, and creeping bent, *Agrostis stolonifera*, provide a crucial food source which allows the geese to gain weight prior to migration [REF 2]. The extent and quality of saltmarsh is declining due to coastal squeeze as a result of active erosion of the saltmarsh frontage and lack of scope to respond to this by rolling back due to the seawall, which acts as a barrier.

The Deben Estuary provides the avocet population with an important food supply over the winter period. Deben Estuary's brackish waters and mudflats, revealed at low tide, support important numbers of prey species, including aquatic insects, range of larvae, crustaceans and other invertebrates, such as *Hydrobia* and *Corophium* [REF 2].

Avocet mostly feed upon the estuary mudflats, rarely feeding within the surrounding saltmarsh [REF 3].

- Current condition of supporting habitat

Supporting habitat at this site is threatened by the degradation and fragmentation of mudflats and saltmarsh.

The extent and quality of mudflat and saltmarsh upon the estuary is threatened as a result of coastal squeeze, rising sea level and high rates of erosion.

As a result of this dynamic nature of the estuary, and the pattern of accretion / erosion, the objective is to avoid deterioration of the extent, distribution and function of the supporting habitats from their current level, as indicated by relevant data.

The DEP recognises the importance of floodplain and intertidal habitats and of the threats which they face. In the DEP plan it sets out to: *'Encourage and deliver projects to restore and regenerate intertidal saltmarsh. • Advocate where practicable, the beneficial re-use of dredged silt as recharge for saltmarsh areas. • Monitor habitats and species within the estuary, taking note of climate change and coastal squeeze'* [REF 26].

D2.4.2 Narrow-mouthed whorl snail: Loss of extent.

D2.4.2.1 Current status and supporting habitat

Martlesham Creek received specific mention in the Ramsar site Ramsar Information Sheet as '*one of only about 14 sites in the country where this species was found'.* It is noted in Abrehart Ecology's 2008 survey report [REF 5] that Martlesham Creek has become too wet and overgrown in the last few years and appears unsuitable at present, with the snail recorded as no longer present. The report does note habitat to the west of the seawall near the sluice which could be suitable and deserves further survey. This is outside the project area and therefore is not explored further here. The 2008 survey also recorded the snail present at the following grid references: Ramsholt TM630386 241891; Ramsholt TM630510 241790; Bawdsey TM633138 38669; Hemley TM629067 242335 and Waldringfield TM628951 243922; The exact location of all of these sites has been investigated on ArcMap and they are not impacted by either the route alignment or the coastal margin.

A *Vertigo angustior* survey of just two specific sites on the Deben Estuary was undertaken in 2014 [REF 6]. The two sites were Bromeswell Green and Sutton Hoo. The purpose of that survey was to determine the extent of any effects of the December 2013 tidal surge on this snail on the Deben Estuary (and Alde-Ore and Blyth estuaries) by collecting post surge data and comparing it with existing survey data.

Survey results at both sites indicated a dramatic decline. At Bromeswell Green numbers were 91% down on 2010 (2010 report not available but data included within the 2014 report). The 2014 report [REF 6] attributed the decline in population and reduction in distribution of the mollusc to increasing inundation of grassland at higher elevations and the restriction of habitat migration by the seawall

barrier. The report stated that the *Vertigo angustior* is not expected to survive at the Bromeswell Green site in the long term.

In 2008 the snail was recorded as present - abundant at Bromeswell Green TM 29587-50429. As already noted, this is not within the project area but for completeness on the status and trends of the snail on the estuary it is included here. The Bromeswell Green site covers several acres of marshland. The large area has a gentle gradient moving into the roadside shrubs. Suitable sites were along the upper limit of this grassland. The transition zone is extensive which will make this an important site to work with in the future.

At Sutton Hoo the decline on 2010 numbers was 80% (despite the sampling area being greater) [REF 6].

At this site the cause was again alterations in salinity attributable to an increase in the frequency of saline inundation of a small damp hollow in the site, which supported the highest density of the mollusc in 2010. As at Bromeswell Green, in the long term, it is suspected that the population at Sutton Hoo will be lost from the site due to a lack of habitat for the mollusc to retreat upwards into and a lack of alternative habitat within the site due to sandy substrate. [REF 6].

Vertigo angustior appears to be in a considerable decline across the Deben Estuary. It is especially susceptible to changes in sea level. The populations at the two sites of Bromeswell and Sutton Hoo have greatly reduced their range and density and both sites are in an unfavourable condition.

It will be vital in the future to assess the surrounding hinterland to see if there are populations outside of the known range, as is also the case along the Blyth Estuary [REF 6]

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 approach 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

Analysis of the potential impacts of this stretch of the ECP proposal on the qualifying features concludes likely significant effect. In this section of the assessment the mitigation measures proposed at a stretch level, to address those identified potential impacts and risks, are described.

The proposal for the Felixstowe Ferry to Bawdsey stretch of the ECP is divided into six sections for the stretch Reports. Each Report section includes land which is within the boundary of the European sites and therefore is considered within this assessment.

As previously mentioned, key considerations revolve around, disturbance to avocets (nb) and dark-bellied brent geese (nb), trampling of their supporting habitat and, the narrow-mouthed whorl snail and its supporting habitat.

The overall approach to potential waterbird disturbance or damage to supporting habitat is to aim for an outcome where, the conservation objectives of the qualifying features are not impacted by the ECP proposal. This should mean that the existing functioning network of high-tide roosts and feeding areas on the site are not hindered from meeting the needs of these non-breeding waterbirds in so far as they do at the establishment of the proposed ECP.

Since waterbirds are mobile and present in various locations throughout the site, it is most appropriate to adopt a strategic approach to the design of the new access arrangement. This approach will also ensure that the narrow-mouthed whorl snail is not impacted by the proposal at a stretch level.

The adoption of a strategic approach means taking in to account the nature of the site and the long-term, overall aims and interests of the qualifying features, and ensuring that the proposal design, together with mitigation measures, does not impact on their achievement. How this approach is implemented for each of the key considerations is as set out in the following sections. Key locations which are noted to have specific sensitivities are addressed in Section D3.2 Design of the access proposal to address possible risks – at a local level.

D.3.1.1 Avocet (nb); dark-bellied Brent geese (nb); narrow-mouthed whorl snail: Disturbance. Supporting habitats.

The strategy for the detailed design at a stretch level of the proposal and incorporated mitigation measures to avoid the possible impact of the proposal on the above qualifying features is:

- Communication with users through the installation of signs:

  Signs will raise awareness and inform users:

  - of the sensitivities of wildlife to disturbance and its consequences
  - of the importance of supporting habitat
  - of positive behaviour that can be adopted in specific locations to ensure that their actions do not create an impact
  - about the waterbirds on the site, especially around high-tide, explaining the importance of keeping a reasonable distance away, with dogs on leads, until at least, out of sight of the birds

- about the importance of keeping dogs under control at all times. There is a body of anecdotal evidence, backed up locally, that suggests that disturbance to waterbirds is more significant when dogs are allowed to roam freely [REF 27]

Areas and locations have been identified where signs can be used to influence both existing and new users' behaviour positively by explaining the importance of the site with regard to wintering and migratory birds, the risks associated with disturbance, and how to avoid them.

New and first time visitors will be provided with good information so that wanted behaviours are mostly likely to be established from the start [REF 28; 29] . A hierarchy of key and prioritised messages will be developed and delivered at the most relevant points. Messages will be explicit and define distinct behaviours to increase clarity and thereby, potential for compliance.

Signs will also aim to provide information to dog owners about where behaviours, recognised as of high priority to dog walkers such as off-lead access, can be accommodated with least conflict to designated features, if relevant.

Temporary signage will be used to highlight seasonal requests and removed once the required compliance period has ended in order to be most effective
On-site information and interpretation will communicate a clear, consistent and credible message to walkers and walkers with dogs. Non-compliance with desired behaviours by dog walkers is often due to a lack of a clear message [REF 28; 29].

In designing the access proposal to address possible risks at a stretch level, signage and interpretation panels are not expected to work alone but will be used in combination with other measures including section 25A of CROW restrictions.

- Section 25A of CROW 2000 [REF 7] Exclusion of all access (all users and dogs) from the coastal margin. The possible risk to birds feeding on intertidal mud throughout the estuary has been considered. It has been concluded that no new, direct, adverse impacts should result from the proposal because the vast majority of the mudflat and saltmarsh on this estuary will be excluded from coastal access rights under section 25A of CROW.

  Section 25A of CROW is used to exclude access specifically on the grounds of suitability for access by people and it has been applied on that basis on the Deben Estuary. However, excluding access to the saltmarsh and mudflat on suitability for access grounds protects waterbirds from disturbance, supporting habitat from loss or damage, and the snail and its supporting habitat from loss or damage, on the excluded areas. These conservation interests would need to have been addressed separately in these areas if the section 25A exclusion under CROW was not applied

Because of the section 25A exclusion under CROW on mudflat and saltmarsh, favoured feeding grounds of non-breeding waterbirds, and combined with information from the access assessment, it can be concluded that this proposal should not have an adverse effect on feeding birds nor their

excluded supporting habitat, from the direct access by people on to their feeding ground where these areas are subject to the exclusion.

Where areas of mudflat, saltmarsh or transition grasslands are not covered by this exclusion and a potential risk to feeding or roosting birds could still occur, these areas will be addressed along with a number of key locations in section D3.2.

In the long-term there is the potential for a positive outcome. This could be that there is a reduction in disturbance to waterbirds and damage to saltmarsh on the Deben Estuary as existing users moderate their behaviour in response to the new information and the provision of a well maintained trail.

At a stretch level, in addition to communication and the section 25A exclusion under CROW, the following factors will ensure that for the greatest majority of the proposed route of this stretch of the ECP, potential risks identified in the LSE above will not materialise:

- The route alignment: The trail is aligned away from the shore when it is deemed it would be less impactful to designated site features to do so, rather than follow the shore. Approximately 80% of the proposed trail is aligned along existing public rights of way
    1. Access assessment: The assessment of changes in user numbers as a result of the ECP proposal is taken into account at every section, along with, specific sensitivities of that stage. RAMS [REF 16] has been taken in to consideration in the preparation of the access assessment
    1. The trail and its infrastructure will be well maintained, clearly signposted and easy to follow

It should be reiterated here that the above additional design features mean that there is the potential for a positive consequence of the ECP proposal and that is, a reduction in levels of waterbird disturbance compared with current levels and less impact on supporting habitat, one example being the routing of the new trail between Kirton Creek and Waldringfield.

D.3.1.2 Installation of access management infrastructure

Loss of or damage to supporting habitat has been identified as a potential risk of this project. Analysis of the proposed location of new trail infrastructure and comparison with the position of supporting habitat confirms that, as a result of choice of route alignment, all of the infrastructure can be installed without any risk of direct habitat loss or damage either due to the location of the infrastructure or, during establishment works.

The establishment of the trail will see existing infrastructure being retained, some being removed or replaced with similar and there will be some new infrastructure. Close attention to its location has meant that none of the new infrastructure will be placed on supporting habitat and further, all will be placed outside the SPA and Ramsar site boundary.

Disturbance during installation works has been identified as a potential likely significant effect. Method statements by the Local Authority managing the works, in conjunction with Natural England's SSSI assents process, will ensure that this risk is mitigated, for example by stipulating safe

routes for vehicle access, requiring the use of hand tools where more control is necessary and/or specifying timings for work.

The code of behaviours designed in to the project and set out in Table 6 below, allows the conclusion that all risk of disturbance to qualifying features or damage to their supporting habitat or surrounding sensitive habitat during establishment works will be mitigated.

Table 6: Summary of procedures designed in to the project proposal to mitigate risks associated with infrastructure and its construction

Site design	2. Local Authority to design access routes, storage areas and site facilities to minimise disturbance and other impacts on qualifying features and protect supporting habitat 3. Design to be approved by Natural England before work begins 4. Operations to be conducted out of sight of roosting and feeding areas 5. Local Authority to obtain all necessary permissions and approvals, including SSSI assent
Timing of works	• Local Authority to plan work schedule with Natural England to limit disturbance risk • Natural England to specify a period of low sensitivity at each construction site based on likely departure and arrival dates of the waterbird species that use it • At all other times, operators working within 200 metres of, and visible to, a roost site will stop work during the 2 hours before and after high tide. • Operator to limit construction activities to daylight hours at all times of year
Method	• Operator to use hand tools where practicable. • Operator to avoid use of percussive machinery outside period of low sensitivity, or avoid use of machinery during the 2 hours before and after high tide.

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

In this part of the assessment we consider the coast between Felixstowe Ferry and Bawdsey as a series of shorter lengths of coast, corresponding to the coastal access report for that length, where establishing the England Coast Path and associated coastal access rights might impact on qualifying features of a European site. Each length of coast is considered in a separate subsection (3.2A, 3.2B etc.). In each subsection we investigate the potential risk in detail and explain how, if it is concluded necessary, the detailed design of our proposals in the relevant report or reports takes account of possible risks.

Many of the potential risks to the qualifying features as identified in the LSE stage in Table 2 will be mitigated through the design of the proposal at a stretch level. However potential risk may be

associated with a number of factors at specific locations and those locations need to be assessed separately. Each of these shorter lengths of coast are shown in Table 7.

For readers who wish to cross–refer between this assessment and the corresponding Coastal Access Report in which access proposals are described, the relationship between the geographic units used in this assessment and the way the stretch is sub divided into reports, is also shown.

Note:

The section between Kirton Creek and Waldringfield includes extremely sensitive areas for birds that are qualifying features of the SPA and Ramsar site. It is not assessed separately in this HRA as, for reason other than conservation (existing footpath no longer passable due to a breach) the route was aligned inland between these points. In addition the land to the seaward side, which could potentially be coastal margin, is arable (excepted land) and therefore no new coastal margin access rights will be created

The route tracks inland between Ferry Cliff and Methersgate Quay because it follows the existing public right of way. In addition the land seaward of the proposed trail which could potentially be coastal margin is a number of excepted land types and therefore no new access rights will be created here

A consequence of the proposed alignment at both of the above sections is that it is possible to conclude that the ECP should not impact on the qualifying features of the European site and therefore these sections will not be investigated further within this assessment. Also, as the land to the seaward side in both cases is predominantly arable, and as such is excepted land, the area is excluded from the coastal margin and associated new access rights.

Table 7. Summary of Key Locations for further investigation of potential risks

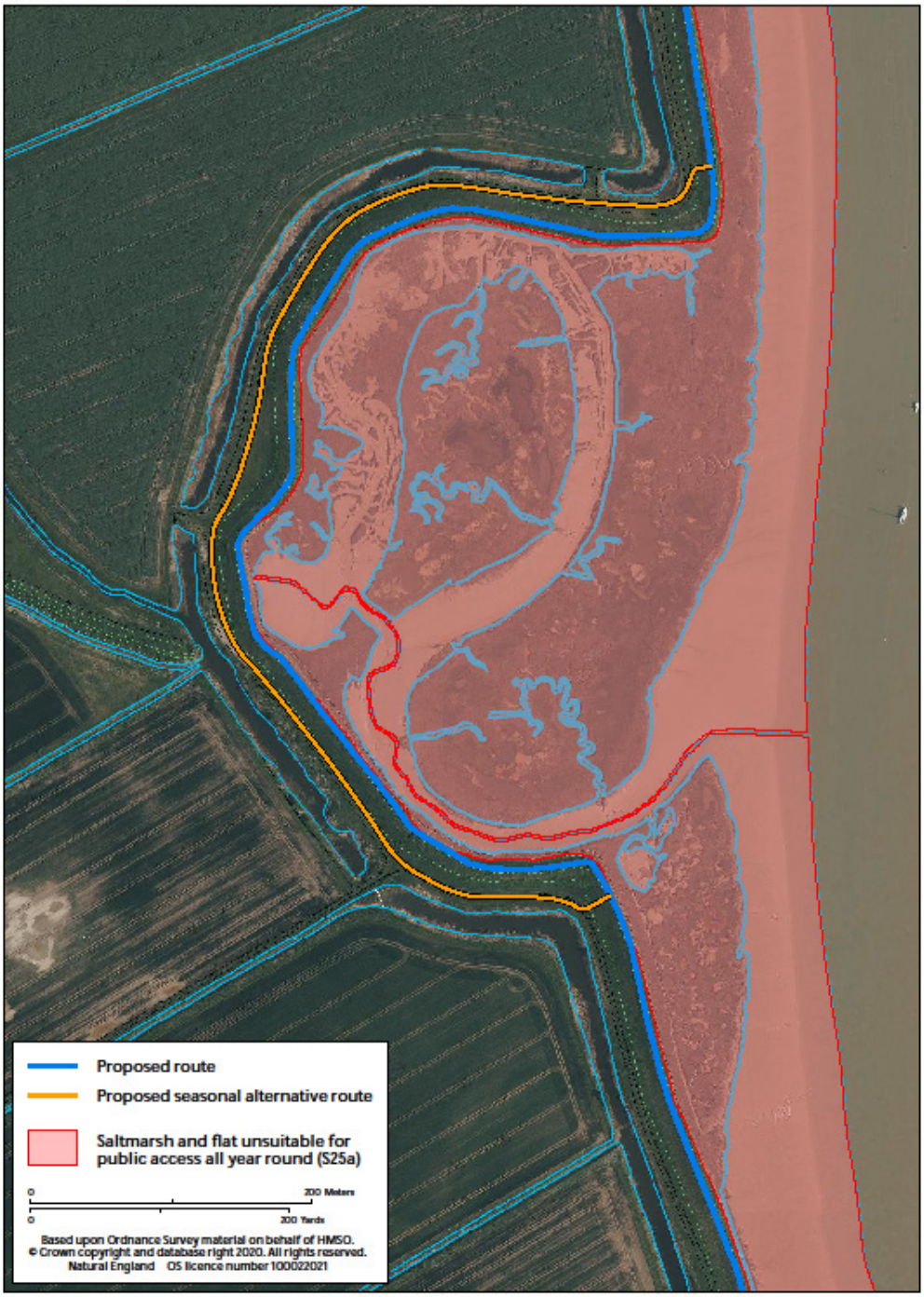
Location	Coastal Access Report	Specific location	Disturbance of Avocets (nb)	Disturbance of dark bellied brent geese (nb)	Loss of narrow mouthed whorl snail or damage to its supporting habitat from trampling
Falkenham Creek	1c	FFB-SEC-080c to FFB-SEC-080e	√		
Wilford Bridge to Little Haugh	4A	FFB-SEC-201 to FFB-SEC-202			√
Shottisham Creek to	5E	FFB-SEC-277 to FFB-SEC-281		√	

Cragpit Plantation					
Ramsholt to Ferry Road Bawdsey	6A; 6B; 6C	FFB-SEC-303 to FFB-SEC-303D	√	√	

To inform our assessment of risk, we have reviewed how relevant sections of coast are currently used for recreation, how levels of access might be affected by our proposed improvement to access [REF 17], how current levels of access might change as a result of known factors (such as planned housing). The predictions we have made from this review are informed by site visits and meetings, available information including the HRA undertaken for the Ipswich Local Plan and the associated Suffolk Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) input from local access and conservation managers and bird recorders, on-line mapping and aerial photography and travel and visitor information where available. The findings of these reviews are incorporated into the assessments below.

Coastal Access: Felixstowe Ferry to Bawdsey - Habitats Regulations Assessment

Map 4. Falkenham Creek



The section of the ECP which passes around Falkenham Creek has been identified as a location where, despite the design features integral to the ECP proposal at a stretch level, and considered effective in mitigating any risk between Felixstowe Ferry and Falkenham Creek, there remained a potential risk that, because of the specific nature of this location and its use by avocet, a Qualifying Feature of the SPA, the ECP proposal could impact on the use of this key secondary roost site. Further investigation of the nature of the location, the pattern of its use by waterbirds and the level of increase in use of the path as a result of its upgrade to the ECP, was undertaken as set out below. The area is open with no visual screening of users of the path from birds on the creek.

- Current Situation: Disturbance to avocet (nb)

As noted above, Falkenham Creek is rated as 'highly sensitive' as an avocet roost site in the Suffolk Wildlife Trust report of 2014 [REF 19]. There is an existing PRoW along the seawall and a borrowdyke runs the full distance around the creek on the landward side. The borrowdyke is a physical landward barrier, however this section is open with no screening of users of the path from birds on the creek nor any barrier to dogs on the seaward side of the PRoW.

The access assessment forecasts a small increase in users as a result of the upgrade of the path to ECP status. Although visitor numbers to both Felixstowe Ferry and Waldringfield are quite high, observations by Natural England teams on site visits, suggest most people tend to stay within the vicinity of both locations. The SWT report of 2014 also confirms that this area is relatively undisturbed.

Aside from the area close to Felixstowe Ferry and that around Waldringfield, this section is relatively lightly used by walkers with the sections around Hemley and Falkenham Creek particularly quiet.

6. Analysis of Risk: The trail

The proposed alignment of the trail is to follow the existing PRoW on top of the seawall around the creek.

As set out above the anticipated increase in users as a result of the ECP alone is small, however even allowing for the increase being small, the particularly sensitive nature of this location associated with its use by avocet, raises concerns of a negative impact on the Conservation Objectives of this species through visual disturbance.

In addition there is no barrier of vegetation or otherwise to prevent dogs running on to the creek, even if it is unlikely, due to its nature.

7. Analysis of risk: Coastal Margin

The whole of the coastal margin on the section around the creek is excluded under section 25A of CROW.

There is a risk, however, of dogs running on to the creek as there is no barrier of vegetation or otherwise to prevent them doing so, even if it is unlikely, due to its nature.

8. Design features of the proposal to mitigate risk of disturbance

In order to address the risks of disturbance at Falkenham Creek the following mitigation measure have been incorporated in to the design:

- The ECP trail will be aligned in the folding around the creek from 1st October to 31st March, i.e. those months when avocet are present on the estuary (Map 4)
- A sign, erected seasonally, will meet users of the trail as they approach the creek on the PRoWs from Waldringfield, Felixstowe Ferry, Falkenham Marshes or Corporation Marshes explaining its sensitivity and asking walkers and walkers with dogs to use the signed ECP trail in the folding in preference to the seawall

The ECP route proposal has been designed so that when walkers reach the creek they will meet a sign providing information and direction. The signs will provide information on the birds that use the creek at this point and their sensitivity to the visual disturbance that could be created if walkers and dogs follow the unscreened seawall top around the boundary of the creek. Instead walkers will be directed to the folding (at the inland base of the wall) where they can follow the ECP route around the creek finally returning to the seawall. The PRoW of course remains on the seawall top, however, the installation of signs could have the added benefit of reducing the numbers of walkers that currently follow the PRoW on the seawall top, during the winter months, as they respond to the information on the signs.

This routing is consistent with the mitigation measure introduced at Trimley Realignment and additional screening which will be introduced at Colton Creek, both on the neighbouring Orwell Estuary.

D3.2B Report 1C: Wilford Bridge to Little Haugh

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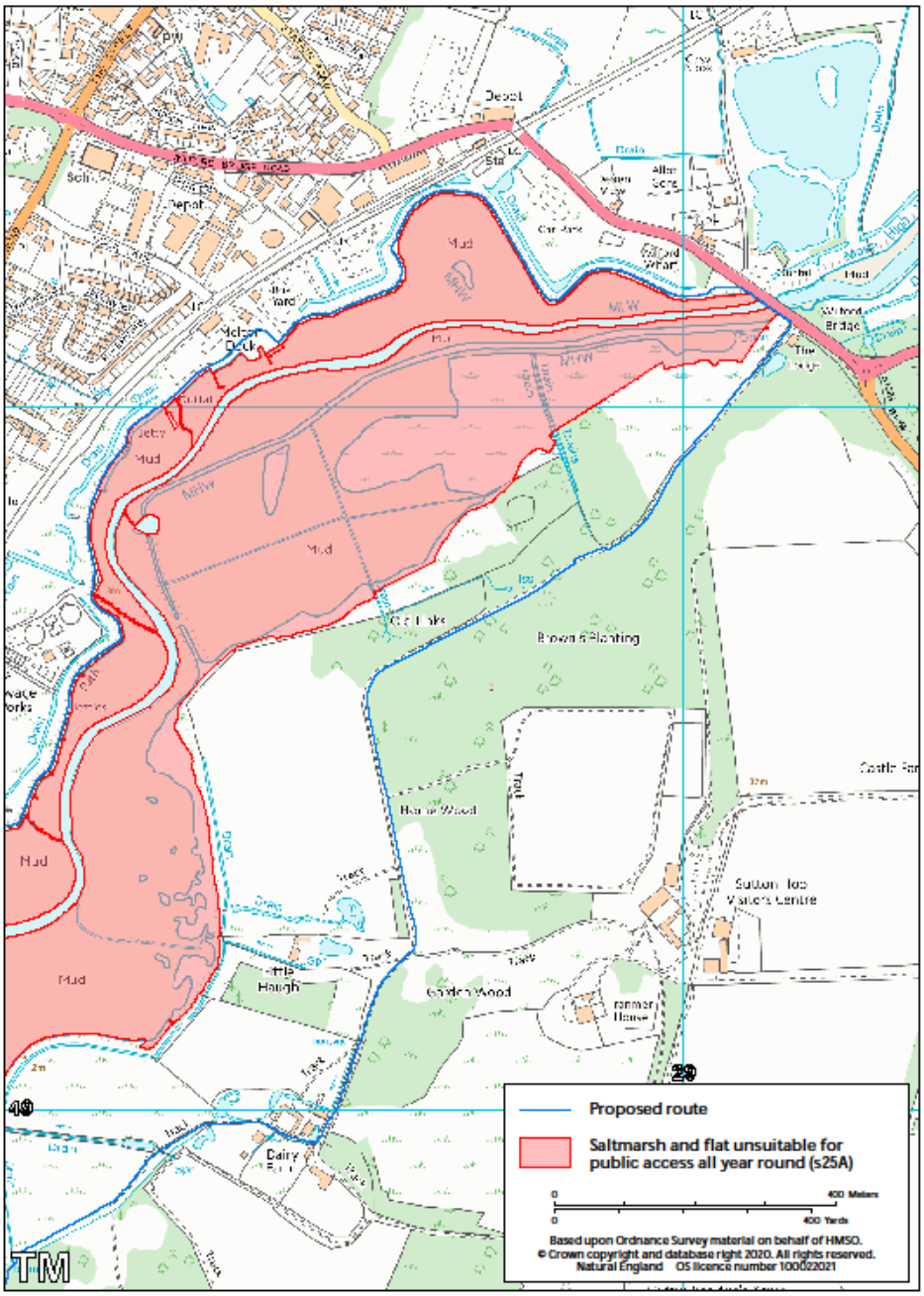
Map 5. Wilford Bridge to Little Haugh



The section of the ECP between Wilford Bridge and Little Haugh has been identified as a location where, despite the design features integral to the ECP proposal at a stretch level, there was still a potential risk that, because of the specific nature of this location as a key site for the narrow-mouthed whorl snail, the ECP proposal could impact on the Conservation Objectives of this Qualifying Feature of the Ramsar site.

Further investigation of the nature of the location, the potential level of increase in use of the path as a result of its upgrade to the ECP and the extent of any newly created coastal margin was undertaken as set out below.

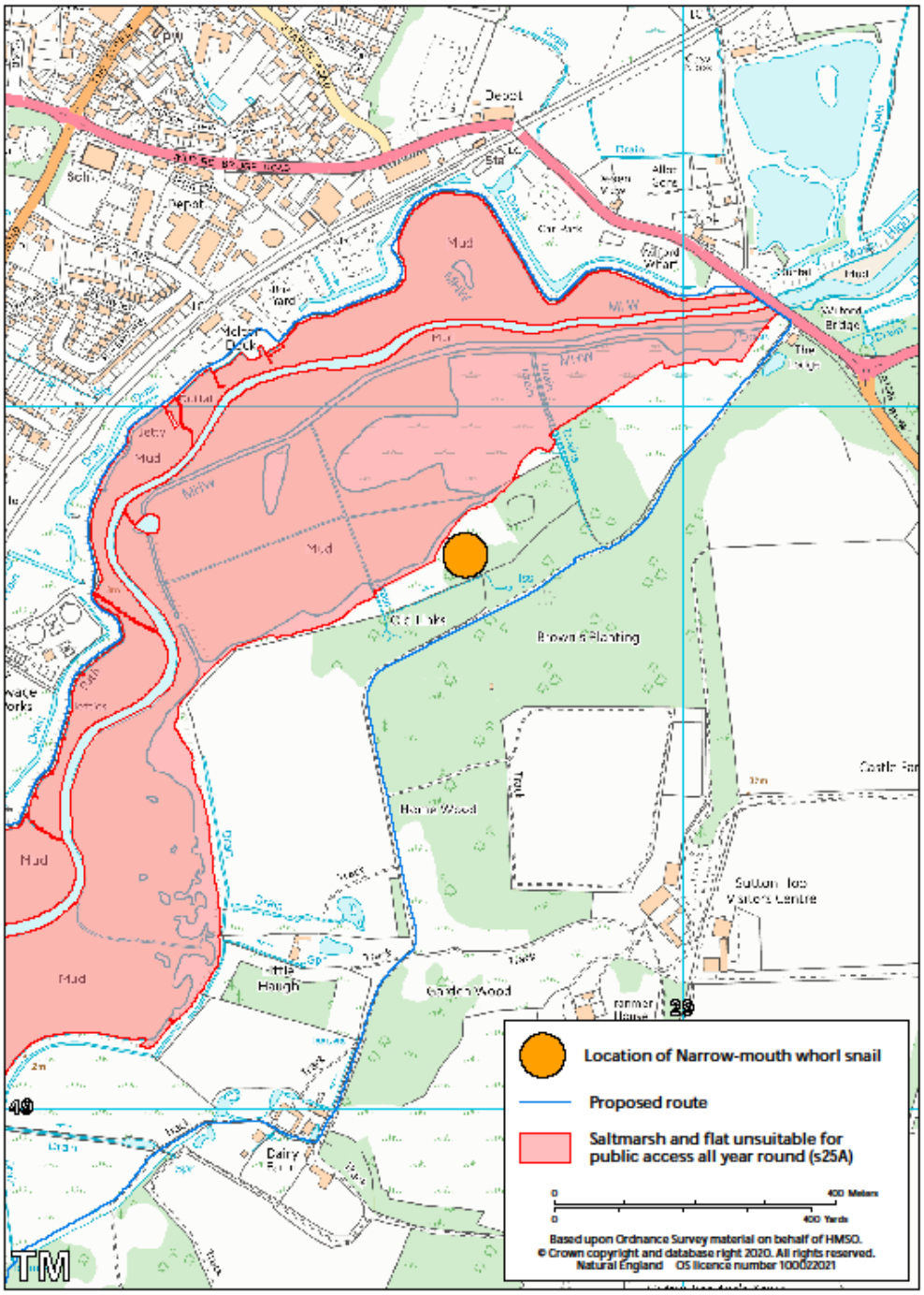
9. Current Situation: Impact on narrow-mouthed whorl snail

Currently there is no public right of way between Wilford Bridge and Little Haugh. There is a tarmac track joining the two points and visitors to the National Trust's Sutton Hoo property may walk along the majority of the track as part of a number of circular walks. There is no specific right of public access on to the land between the tarmac track and the estuary.

The narrow-mouthed whorl snail has been recorded as present on the section, see Map 6. Currently, as there is no right of access for walkers on to this snail habitat, there is no immediate risk to the Conservation Objectives of the snail due to walkers alone.

Coastal Access: Felixstowe Ferry to Bawdsey - Habitats Regulations Assessment

Map 6. Wilford Bridge to Little Haugh: Location of Narrow-mouth whorl snail



10. Analysis of Risk: The trail

This section of the proposed ECP alignment will create a new right of coastal access. As a result of the ECP being a new right of way between these two points the Access Assessment [REF 17] forecasts a large increase in users from ECP alone. In addition the established visitor facilities at Sutton Hoo, including a café, toilets and parking will continue to be a draw for visitors and could act as a destination for walkers. Riverside car park (50 car parking spaces) is approximately 400m from the junction of the track with the road (A1152). Melton Railway station is approximately 900m from this junction. Trains run hourly during the daytime to Ipswich and Lowestoft. The land through which the proposed trail passes here is largely mature woodland and some grazing marsh. All of these factors support the anticipated large increase in users of this new section.

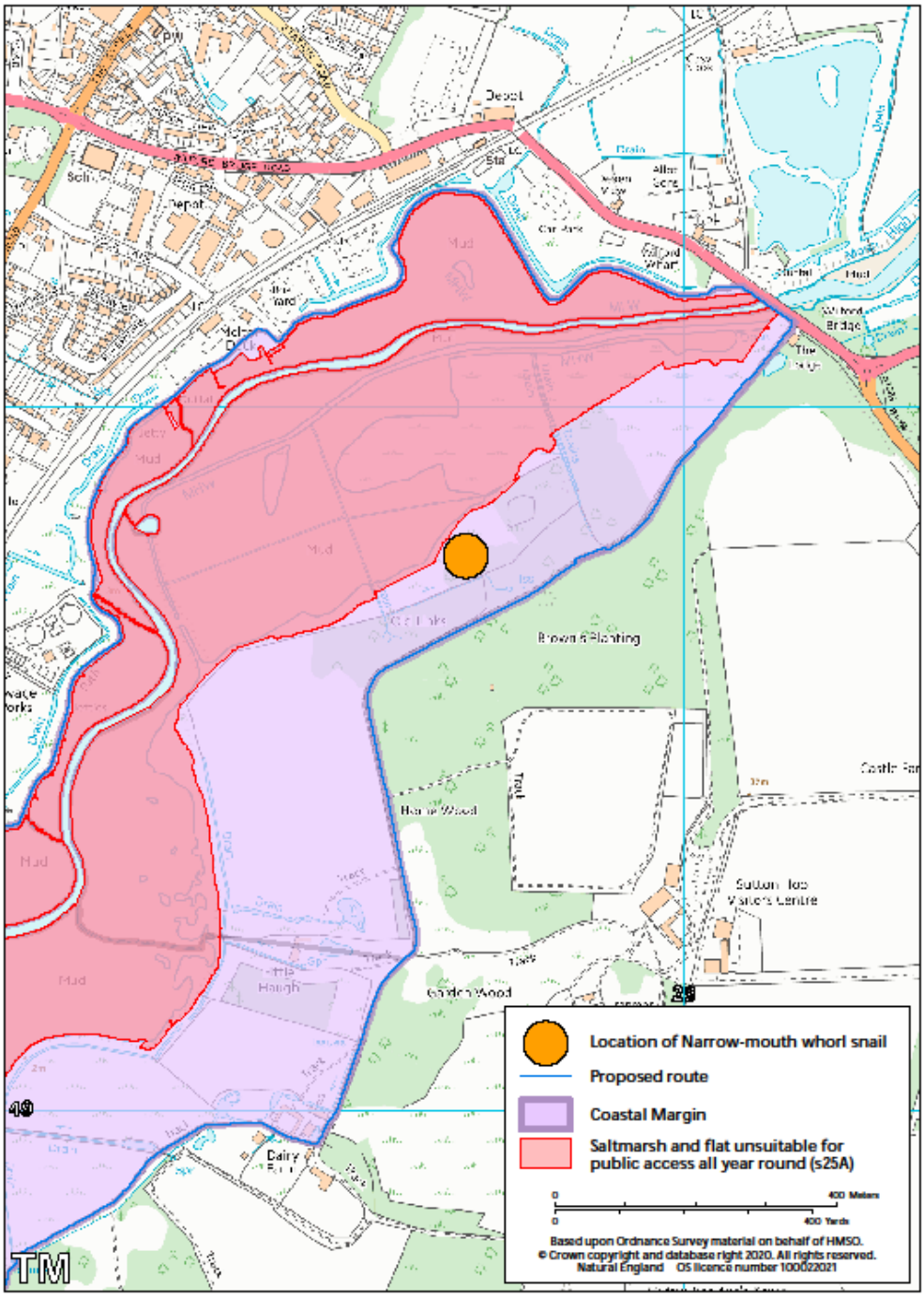
As the trail alignment uses the existing tarmac track and the vegetation immediately next to the track (maximum width 2m) there is no reason to anticipate an impact on the narrow-mouthed whorl snail from use of the path.

11. Analysis of Coastal Margin:

Much of the seaward coastal margin is excluded under section 25A of CROW between Wilford Bridge and Little Haugh, see Map 7. However there is a section of coastal margin, lying between the alignment of the trail and the boundary of the section 25A of CROW exclusion that will be available to users of the trail to access freely. See Map 7

Coastal Access: Felixstowe Ferry to Bawdsey - Habitats Regulations Assessment

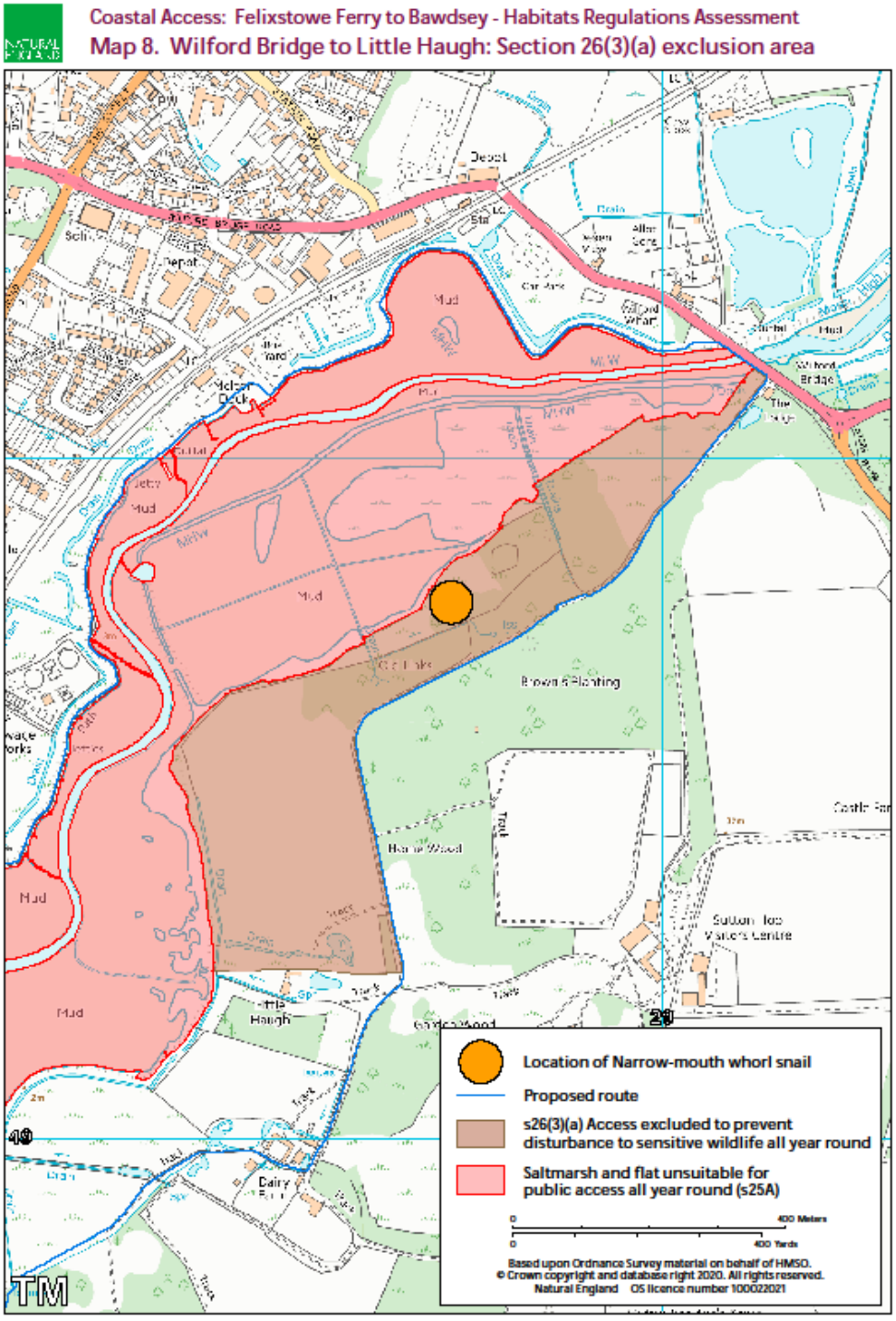
Map 7. Wilford Bridge to Little Haugh: s25A exclusion area and Coastal Margin



New coastal access rights will apply to this area with users of the trail permitted to spread out onto this land to view the estuary, picnic or take part in other recreational activities. The land in question is not particularly inviting, however, the right of access would exist and could result in walkers and walkers with dogs trampling on the snail and its sensitive and endangered supporting habitat.

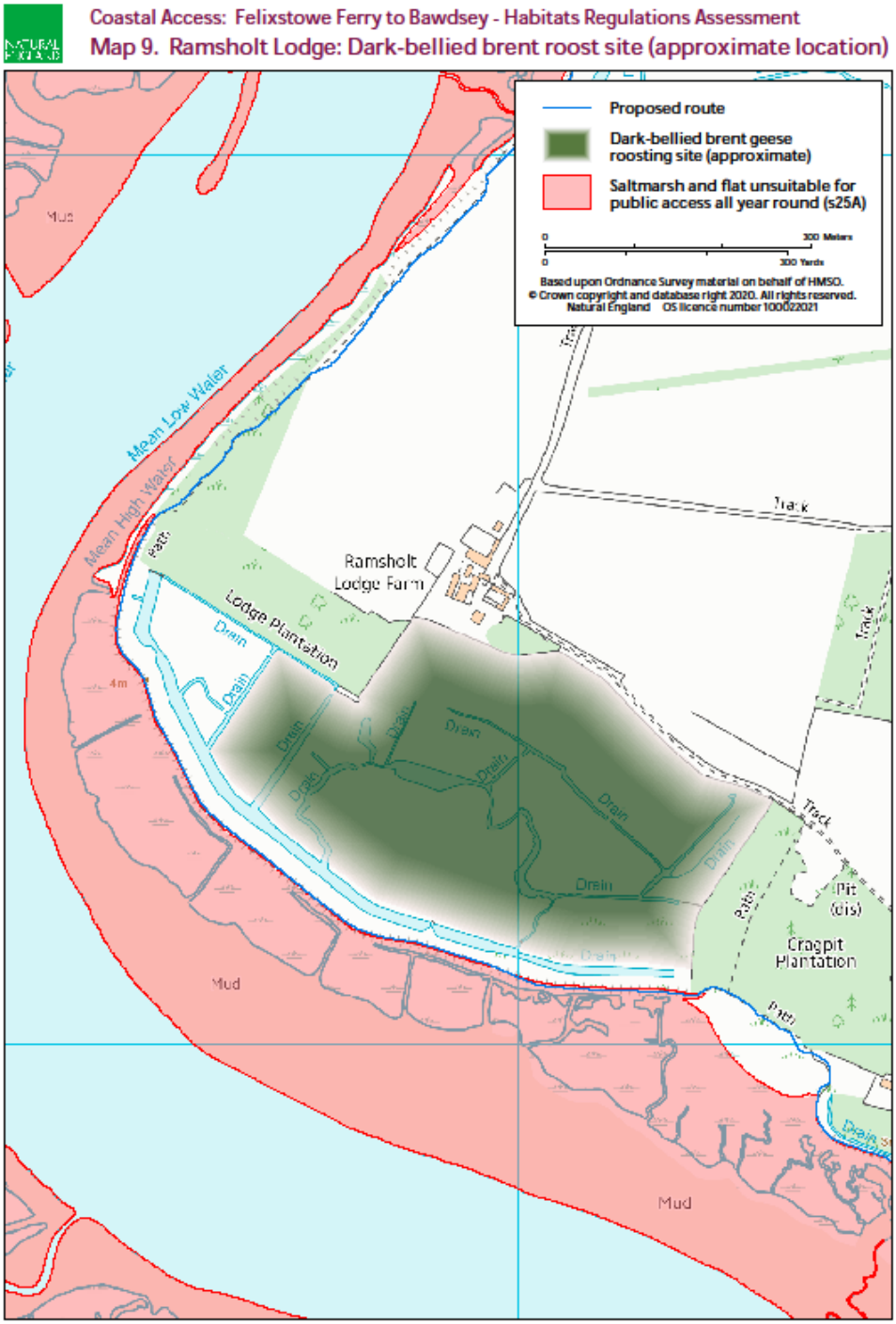
Abrehart Ecology have been conducting surveys of this snail on Suffolk estuaries, including this one, for over ten years. It is their view that any trampling of the delicate habitat, with subtle micro-habitats and structure in the vegetation, could severely challenge, if not completely destroy, the snail population here.

12. Design features of the proposal to mitigate impact on *Vertigo angustior*



- Under section 26(3)(a) of CROW, for the purpose of conserving nature conservation interests of the land in question, there will be no new right of access to the coastal margin between 2m from the tarmac track and the boundary of the section 25A of CROW for the section of the trail between Wilford Bridge and Little Haugh. This will mitigate the risk of trampling by walkers or walkers with dogs on the narrow-mouthed whorl snail or its supporting habitat

D3.2C Report 5E: Shottisham Creek to Cragpit Plantation



The section of the ECP between Shottisham Creek and Cragpit Plantation has been identified as a location where, despite the design features integral to the ECP proposal at a stretch level there was

still a potential risk that, because of the specific nature of this location and it's pattern of use by dark bellied brent geese (nb) the ECP proposal could impact on their use of the marshland, functionally linked land, between Ramsholt Lodge and the proposed route of the ECP.
Further investigation of the nature of the location, the pattern of its use by waterbirds and the level of increase in use of the path as a result of its upgrade to the ECP, was undertaken as set out below.

13. Current Situation: Disturbance to dark-bellied brent geese (nb)

The marshland landward of the proposed trail is noted as highly sensitive as a key roost site for dark-bellied brent geese [REF 19]. The land is outside the boundary of the SPA and Ramsar site, however, as it is supporting a Qualifying Feature of these sites it is considered functionally linked land.

The SWT report [REF 19] noted that currently it is rare to meet people on this section. There is therefore thought to be little disturbance of geese roosting or feeding here.

14. Analysis of Risk: The trail

The proposed trail uses the PRoW on top of the seawall. There is borrowdyke running on the landward side of the seawall for all of the section of trail as it passes this sensitive area. There is therefore a good physical barrier preventing encroachment on to the favoured marshland roost, however, the area is open and people on the top of the seawall are visible from both the estuary and the marshland landward of the trail.

The distance between the trail and Ramsholt Lodge is approximately 350m. Therefore roosting geese would be inside the recommended separation distance of 200m when using the majority of the area.

The Access Assessment forecasts a small increase in users of this section of path as a result of its upgrade to a National Trail alone. It is anticipated that the focus for visitors/walkers will be close to Ramsholt, where a circular walk is possible using intersecting public footpaths. Beyond that, this section is lightly visited and it is anticipated that with the lack of 'attractors' here, and the remote nature of this area, that this is unlikely to change.
In order to make a full assessment of the potential impact a site visit was made by Natural England's specialists.

The conclusion is that due to the predicted small increase in users as a result of the ECP alone there is no reason to conclude that the level of disturbance to dark-bellied brent geese using this roost site should become greater to a degree that would impact the Conservation Objectives of this qualifying feature of the European sites.

15. Analysis of risk: Coastal Margin

No new coastal margin access rights are created along this section. All of the mudflat and saltmarsh is within the section 25A of CROW exclusion.

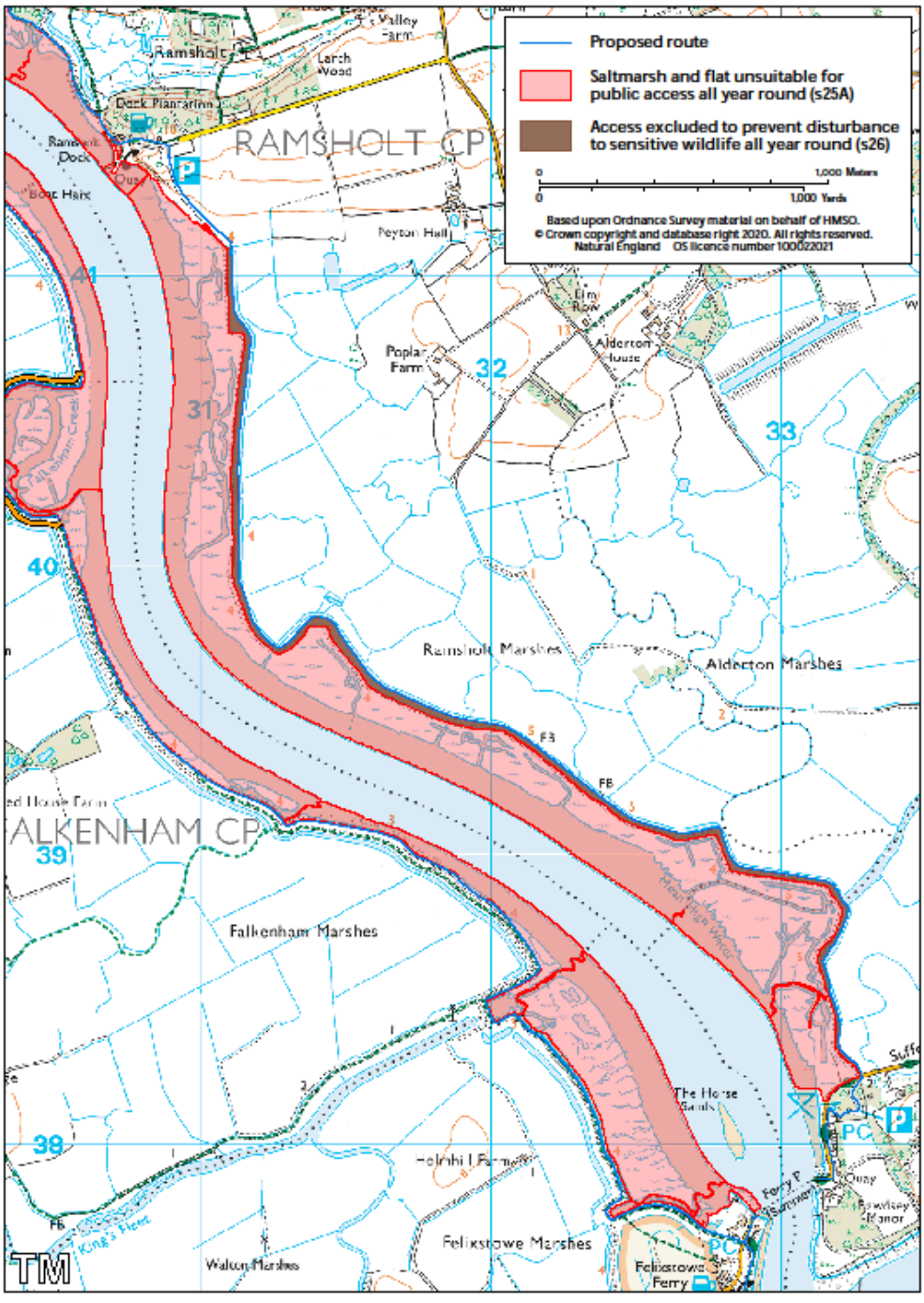
16. Design features of the proposal to mitigate risk of disturbance

No mitigation design features, specific to this section, additional to those described at a stretch level in section D3.1 are needed for the reasons described above.

D3.2D Report 6: Ramsholt Dock to Ferry Road Bawdsey

Coastal Access: Felixstowe Ferry to Bawdsey - Habitats Regulations Assessment

Map 10. Ramsholt to Ferry Road, Bawdsey



The section of the ECP from Ramsholt to Ferry Road Bawdsey has been identified as a location where, despite the design features integral to the ECP proposal at a stretch level, there was still a potential risk that, because of the specific nature of this location, its use by avocet (nb) and dark-bellied brent geese (nb), both Qualifying Feature of the European sites, and the current lack of a public right of way, the ECP proposal could impact on roosting and feeding sites through visual and physical disturbance.

Further investigation of the nature of the location, the pattern of its use by waterbirds and the level of increase in use of the path as a result of its upgrade to the ECP, was undertaken as set out below.

17. Current Situation: Disturbance to avocet (nb) and dark-bellied brent geese (nb)

This section of the ECP will join Ramsholt with Bawdsey. There is currently no public right of way or informal access between these two points. The seawall runs the full length of the section with a borrowdyke, on the landward side of the proposed alignment, running for much of the section also. There are occasional breaks in the borrowdyke, i.e. gateways and tracks, which open on to the arable and grass fields and marshes. Between the seawall and the borrowdyke there is an area of flat land; the folding.

The SWT Report [REF 19] notes that this section is undisturbed except for agricultural operations on the farm land, which extends to approximately 350ha, knowns as Ramsholt Marshes, Alderton Marshes and Bawdsey Marshes.

The SWT Report [REF 19] further notes, however, that recent years (up to the date of the report, 2014) had seen an increase is usage of the small area of saltmarsh north of Bawdsey Quay where a definite walk has been trodden.

The access assessment forecasts a large increase in users between Ramsholt and Bawdsey as a result of the ECP alignment here alone. This is because the ECP will create new access where none currently exists.

Ramsholt, Bawdsey and Alderton Marshes although outside the boundary of the European sites are widely used by European site qualifying features, dark-bellied brent geese (nb) as an area for feeding and roosting. These marshes are therefore considered functionally linked land. The current situation is that there is no disturbance from walkers or walkers with dogs.

The estuary side of the seawall is a highly sensitive section of the Deben Estuary as a primary roost for avocet (nb).

18. Analysis of Risk: The trail

The main recreational activity associated with this proposal will be walking and walking with dogs. The potential for disturbance to avocet (nb) and dark-bellied brent geese (nb) arises from the visual and physical presence of people and dogs.

As a rule of thumb, any recreational activity on foot by people or dogs at a distance of 200 metres or less of high tide feeding or roosting birds is considered to be a potential cause of visual disturbance.

This corresponds to the distance at which the more sensitive species are likely to respond to the activity by flight. Location specific factors are also taken in to account.

Local knowledge of recreational activity and field observations of pattern of use by birds and their interaction with recreational users has been collected to inform the design of the proposal at this location.

The borrowdyke on the landward side of some of this stretch of the proposed route will act as a physical barrier and prevent dogs from running on to arable land and grazing marsh. There are however a number of open, unfenced, potential access points. The area available to the dark-bellied brent geese for use is very large (in excess of 350ha), birds could be at a distance greater than the recommended 200m separation from the walked area. However, we do not have evidence to suggest dark-bellied brent geese have favoured fields within this area. The land is nearly all arable and the geese follow the field rotations from year to year, especially winter wheat. On a precautionary basis therefore, it is not possible to rule out disturbance of dark-bellied brent geese arising from nearness of people or people with dogs.

The remaining risk is the possibility of loose dogs running onto the marsh over bridges or culverts on the borrowdyke on to where geese are roosting or feeding.

The risk can be reduced by ensuring that people are aware of the location and sensitivity of places where dogs could run onto the land where dark-bellied brent geese roost. The possibility of blocking openings with gates or fencing and the strategic location of signs was explored and is detailed below.

A restriction could be placed which would require that dogs are kept on leads for the whole of the 3 mile length, however it was concluded that it would be more effective to block entrance points on to the farmland landward of the trail and together with the use of signs to alert walkers and walkers with dogs of the sensitivity of the area.

The possibility of disturbance to geese when crop rotations result in favoured cereals being closer to the trail was recognised, however, for the number of years that that could occur, without a more distant equally attractive alternative, the view of the Natural England specialists is that it would have negligible effect on the Conservation Objectives of this feature

19. Analysis of Risk: Coastal Margin

The proposed alignment of the trail in the folding would create a new right of access to coastal margin, that is, the area between the trail and the boundary of the section 25A of CROW exclusion of mudflats and saltmarsh on the estuary.

User of the trail would have a new legal right of access to the seawall as coastal margin. The seawall is currently overgrown in many areas and uninviting, however, the right to access the coastal margin would exist with its associated risk of visual and physical disturbance to avocet on the estuary and visual disturbance to dark-bellied brent geese on the functionally linked land.

20. Design features of the proposal to mitigate risk of disturbance

A number of different alignments were fully explored [REF 1]. Taking the above considerations in to account and noting that this section of the proposed alignment of the ECP has particular importance as an avocet roost on its estuary side and as functionally linked land used by dark-bellied brent geese for feeding and roosting on its landward side, the following alignment and mitigation measures are incorporated into the route design at this location:

- The path is aligned in the folding; not on the seawall
- Under section 26(3)(a) of CROW, for the purpose of conserving nature conservation interests of the land in question, there will be no new access rights to the coastal margin between the trail in the folding and the estuary. That means that there will be no right of access on to the seawall. This will mitigate the risk of visual disturbance to avocets when on the estuary by people 'skylining' on the seawall, and to dark-bellied brent geese on the landward side of the trail
- A stock and dog proof fence will be installed for the full length of the trail alignment between the folding and the seawall (approximately 2m from the borrowdyke). This will act as a physical barrier to people and dogs
- On the landward side of the proposed alignment of the trail the borrowdyke will act as a physical barrier to encroachment on to functionally linked land by people and dogs. Gaps and openings will be fenced or gates introduced to ensure that birds are not disturbed by dogs gaining access on to this land
- Information signs will be installed at the Ramsholt and Bawdsey access points on to this section of ECP. These will inform people of the sensitivity of the landward side of the trail and the importance of keeping dogs under control
- Signs will be erected at strategic points along this section reminding people of the importance of keeping dogs under control

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

Table 8. 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? (Yes/No) Give reasons.	Residual effects?
Avocet, *Recurvirostra avosetta* (nb); Dark-bellied brent goose *Branta bernicla bernicla* (nb); Disturbance The Conservation Objectives Supplementary Advice and advice on sensitivity to operations states that the evidence base suggests these features are sensitive to the	Route Alignment 18. A large proportion of the proposed trail is aligned along existing public footpaths using	The design features of the route alignment ensures that the new ECP trail should not impact on avocet (nb) or dark bellied brent geese (nb).	No

pressure of human disturbance. This proposal could therefore impact upon the Conservation Objectives for these features. The level of risk will vary along the route and will be higher where the access proposal is likely to bring people close to places on which birds depend including high tide roost sites, and known important breeding and feeding areas. The risk of disturbance is increased on rising tides when birds are forced to feed closer to seawalls and the trail/ footpath. The nature, scale, timing and duration of construction and or installation works could result in bird disturbance sufficient to disrupt normal behaviours and/or distribution of birds within the site. The establishment works that this proposal would involve could therefore impact upon the Conservation Objectives for this feature.	the seawall and walked tracks 19. The trail is aligned away from the shore in certain sections to where it is deemed the least impactful to the designated features 20. A seasonal alternative route, off the seawall, has been aligned in the folding around Falkenham Creek 21. The trail is aligned in the folding for the full length of the new stretch of public access between Ramsholt and Ferry Road, Bawdsey 22. New dog proof fencing will be erected to prevent access on to the seawall between Ramsholt and Ferry Road, Bawdsey and maintained into the future for as long as it is needed 23. New advisory and information signs will be	It was identified that the level of risk could vary along the route. The additional mitigation measures incorporated in to the design has taken account of that risk. The section 25A exclusion under CROW, due to unsuitability of substrate for walkers, has the benefit of ensuring that the ECP will not impact on the conservation interests of the saltmarsh and mudflats thereby ensuring that the risk of disturbance to avocet (nb) and dark bellied brent geese (nb) on these habitats is unchanged as a result of this proposal	

	erected in key locations. These signs will raise awareness and inform users about waterbirds and the sensitivities of wildlife to disturbance and its consequences. The desired behaviour that can be adopted to ensure that they do not create an impact will also be described 24. Signs will be erected strategically asking that dogs are kept under control at all times 25. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow 26. The trail and associated infrastructure will be well maintained 27. Local Authority and contractors will adhere to the mitigation measures set out in Table 6 section D3.1 of this assessment <u>Coastal Margin</u>		

	28. Under section 25A of CROW access will be excluded to the vast majority of the saltmarsh and mudflat. It has been established that these areas are unsuitable for public access (as set out in section 7.15 of the Coastal Access Scheme [REF 1]) 29. Under section 26(3)(a) of CROW [REF 8], for the purpose of conserving nature conservation interests, there will be no new access rights to the coastal margin between the livestock fence on the seaward side of the trail and the boundary of the section 25A of CROW exclusion (includes the seawall) for the full length of the section between Ramsholt and Ferry Road Bawdsey		
Avocet, *Recurvirostra avosetta* (nb); Dark-bellied brent goose *Branta bernicla bernicla* (nb); Supporting	Route Alignment	Yes	No

habitat Loss or damage due to trampling: The specific attributes of each supporting habitat may include vegetation characteristics and structure, water depth, food availability, connectivity between nesting, roosting and feeding areas both within and outside the SPA. The maintenance of the structure and function of the habitat is key to the site's ability to support and sustain the qualifying features. Damage to or loss of the supporting habitat, by definition could impact directly on the long term viability of this feature and thereby pose a risk to the Conservation Objectives Taking into account the dynamic nature of the estuary and the pattern of accretion/erosion, the objective is to avoid deterioration of the extent, distribution and function of the supporting habitats from their current level, as indicated by relevant data.	30. A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks 31. The trail is aligned away from the shore in certain sections to where it is deemed the least impactful to the designated features 32. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow 33. The trail will offer a viable user friendly alternative to the currently available, but not fully passable, PRoW near Hemley, which passes over or close to supporting habitat 34. The trail and associated infrastructure will be well maintained 35. Local Authority and contractors will adhere to the mitigation	The route alignment has ensured that no avocet or dark bellied brent goose supporting habitat is crossed by walkers. Additional investigation, undertaken of the route allowed this risk to be discounted. In addition the direction under section 25A CROW has resulted in the vast majority of saltmarsh and mudflat on this estuary being excluded from the ECP proposal.	

	measures set out in Table 6 section D3.1 of this assessment Coastal Margin ➢ Under section 25A of CROW access will be excluded to the vast majority of the saltmarsh and mudflat. It has been established that these areas are unsuitable for public access ➢ Under section 26(3)(a) of CROW [REF 8], for the purpose of conserving nature there will be no new access rights to the coastal margin between the livestock fence on the seaward side of the trail and the boundary of the section 25A of CROW exclusion (includes the seawall) for the full length of the section between Ramsholt and Ferry Road Bawdsey)		
Avocet, *Recurvirostra avosetta* (nb); Dark-bellied brent goose *Branta bernicla bernicla* (nb); Narrow mouthed whorl snail *Vertigo angustior;* Loss of supporting habitat through the installation of access management infrastructure. There is a potential risk to the Conservation Objectives where there is a permanent and	Route Alignment 36. None of the new infrastructure will be placed on land within the SPA or Ramsar site boundary 37. None of the new infrastructure	Yes The establishment of the trail will see existing infrastructure being retained, some being removed or replaced with similar and there will be some new infrastructure also. Of the new infrastructure the majority will not be within the SPA or Ramsar site boundary and none of this new	No

irreversible loss of the extent of supporting habitat. Loss of supporting habitat, by definition could impact directly on the long term viability of this feature and thereby the conservation objectives. This project proposes the installation of new or replacement infrastructure near supporting habitat.	will be placed on functionally linked land 38. Local Authority and contractors will adhere to the mitigation measure set out in Table 6 section D3.1 of this assessment	infrastructure will be placed on sensitive habitat. Also the mitigation measures outlined in Table 6 section D3.1 allows the conclusion that there will be no loss of supporting habitat as a result of this proposal. In addition, the mitigation measures outlined in Table 5 section D3.1, will ensure that surrounding sensitive habitat will not be damaged nor other qualifying features impacted by establishment works.	
Narrow mouthed whorl snail *Vertigo angustior* Loss of or damage to feature or its supporting habitat due to trampling on the trail or the coastal margin. This feature could be damaged or lost if trail users access the narrow transitional habitats that it still occupies. The feature is declining on the estuary due to coastal squeeze. The feature is therefore susceptible to the impacts of changes in access which could allow a new risk to the feature of loss in abundance due to trampling. Also, as it is possible that walkers making use of the coastal margin could encroach on the supporting habitat of this mollusc, it can be concluded that this could present a new risk to loss of or damage to supporting habitat. Therefore it can be concluded that the proposal could pose a risk to the Conservation Objectives of the Ramsar site	Route Alignment 9. A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks 10. The trail is aligned away from the shore in certain sections to where it is deemed the least impactful to designated features 11. The proposed trail alignment does not track on areas where the snail has been recorded 12. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow	Yes Consultation with Abrehart Ecology (2) identified the locations and favoured habitat of these invertebrates. Due to the alignment of the path it does not pass over areas where the snail has been recorded. Due to the mitigation measures in place, users of the trail will not have access to sensitive locations within the coastal margin where the snail has been recorded as present.	No

	13. The trail and associated infrastructure will be well maintained 14. Local Authority and contractors will adhere to the mitigation measure set out Table 5 section D3.1 of this assessment **Coastal Margin** 15. Under section 26(3)(a) of CROW, for the purpose of conserving nature conservation interests of the land in question, there will be no new access rights to the coastal margin between Wilford Bridge and Little Haugh taking in Sutton Hoo where the snail has been recorded 16. Under section 25A of CROW access will be excluded to the vast majority of the saltmarsh and mudflat. It has been established that these areas are unsuitable for public access.		

Dark-bellied brent goose *Branta bernicla bernicla* (nb): Disturbance on functionally linked land The risk of disturbance to feeding, preening and roosting birds on functionally linked land i.e. land nearby but outside the boundary of the SPA/Ramsar site and used by a Qualifying Feature of the European sites, has been identified. The trail, using existing PRoWs and new routes, passes close to areas which have been identified as functionally linked land with the risk to this qualifying feature of the European sites, of disturbance. The nature, scale, timing and duration of construction and or installation works could result in bird disturbance on functionally linked land sufficient to disrupt normal behaviours and/or distribution of birds within the site. The establishment works that this proposal would involve could therefore impact upon the Conservation Objectives for this feature.	**Route Alignment** 39. The trail will be aligned in the folding between Ramsholt and Ferry Road, Bawdsey, which will prevent 'skylining'. (Skylining occurs where people are on higher ground and are very visible against the backdrop of the sky). 40. Dog proof fencing or gates will be erected to block any openings on to the grass, arable and marshland between Ramsholt and Ferry Road, Bawdsey on the landward side of the trail 41. A large proportion of the proposed trail is aligned along existing public footpaths using the seawall and walked tracks 42. New advisory and information signs will be erected in key locations. These signs will raise awareness and inform users about waterbirds and the	Yes Specific investigation, site visits and consultation of potential impact at these locations has confirmed that neither the trail route nor the coastal margin should impact on the functioning of this linked land.	No

	sensitivities of wildlife to disturbance and its consequences. Also the desired behaviour that can be adopted to ensure they do not create an impact, will also be described 43. Signs will be erected strategically, asking that dogs are kept under control at all times 44. Signposts and waymarking will be used to ensure the route of the trail is clear and easy to follow 45. The trail and associated infrastructure will be well maintained 46. Local Authority and contractors will adhere to the mitigation measure set out Table 5 section D3.1 of this assessment **<u>Coastal Margin</u>** • No Functionally linked land is included within the coastal margin		

Conclusion:

The following risks to achieving the 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 of avocet (nb) dark-bellied brent geese (nb)
- Loss of abundance of the narrow-mouthed whorl snail through trampling
- Trampling of supporting habitat of avocet (nb), dark-bellied brent geese (nb) and narrow-mouth whorl snail
- Loss of supporting habitat through installation of access management infrastructure

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.

Natural England considers that in this case the potential for adverse effects from the plan or project has been wholly avoided by the incorporated or additional mitigation measures outlined in section D3.

It is therefore considered that there are no 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.

It has therefore been excluded, on the basis of objective information, that the project can have an adverse effect on site integrity in-combination with other proposed plans or projects.

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 The Deben Estuary SPA or the Deben Estuary Ramsar Site 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 Felixstowe Ferry and Bawdsey 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:	Name: 	*Role:* Lead Adviser Coast Path Assessment Unit
Date	18.03.20	
HRA approved:	Name 	*On behalf of the Coastal Access Programme Team*
Date	18.03.20	
HRA approved:	Name 	*Senior officer with responsibility for protected sites*
Date	*22/03/2020*	

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