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England Coast Path Proposals -Harwich to Shotley Gate Stretch:



Habitats Regulations Assessment of effects on Stour and Orwell Estuaries Special Protection Area and Ramsar site

Contents

Contents	2
Summary	4
I) Introduction	4
II) Background	4
III) Our approach	5
IV) Aim and objectives for the design of our proposals	5
V) Conclusion	6
VI) Implementation	8
VII) Thanks	9
PART A: Introduction and information about the England Coast Path	. 10
A1. Introduction	. 10
A2. Details of the plan or project	. 10
PART B: Information about the European sites which could be affected	. 14
B1. Brief description of the European sites and their Qualifying Features	. 14
B2. European site Conservation Objectives (including supplementary advice)	. 15
PART C: Screening of the plan or project for appropriate assessment	. 17
C1. Is the plan or project either directly connected with or necessary to the (conservation) management (of the European sites' qualifying features)?	. 17
C2. Is it likely there will be significant adverse effect(s)?	. 17
C3. Overall Screening Decision for the Plan/Project	. 25
PART D: Appropriate Assessment and Conclusions on Site Integrity	. 26
D1. Scope of Appropriate Assessment	. 26
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	
D3. Assessment of potential adverse effects considering the plan or project 'alone'	. 29
D4. Assessment of potentially adverse effects considering the project 'in-combination with other plans and projects	
PART E: Permission decision with respect to European sites	
Certification	
Map A. Overview of trail alignment and lengths	
Map B. Key designations – Ramsar sites	
Map C Key designations – Special Protection Areas (SPA)	. 75
Map D. Key designations – Sites of Special Scientific Interest (SSSI)	
Map E. Key sites used by SPA birds	
Map F. Key designations – Areas of Outstanding Natural Beauty (AONB)	

References to evidence	79
Appendix 1. Stour & Orwell Estuaries Management Strategy 2016 – 202 key points	
Appendix 2. Establishment works: nature conservation/ environmental fa into account	
Front cover photo	

Summary

I) Introduction

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

Natural England has a statutory duty under the Marine and Coastal Access Act 2009 to improve access to the English coast. This assessment considers the potential impacts of our detailed proposals for coastal access from Harwich to Shotley Gate (the Stour estuary) on the following sites of international importance for wildlife (referred to as 'European sites'):

- Stour and Orwell Estuaries Special Protection Area (SPA)
- Stour and Orwell Estuaries Ramsar (wetland) site

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

https://www.gov.uk/government/publications/england-coast-path-from-harwich-to-shotley-gatecomment-on-proposals

II) Background

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

Interest	Description
Non-breeding waterbirds	A key feature of the Stour estuary is that in winter it supports a wide range of waterbirds, present in internationally and nationally important numbers. It is also important for certain species, e.g. redshank, when they are on passage. The estuary is broad and shallow, with unusually extensive areas of mud exposed between tides and numerous areas of saltmarsh. It provides a valuable resource for feeding and roosting birds. This value is enhanced by the proximity of grass and arable fields, which are utilised by some waterbirds for resting and feeding.

Table 1. Summary of the main wildlife interest

Interest	Description
Breeding waders	Although breeding habitats are less extensive, certain species - notably avocet, redshank and lapwing - benefit from the proximity of a mosaic of wet/ damp habitats, mainly in the upper reaches of the estuary.
Saltmarsh	There are areas of saltmarsh scattered along both banks of the Stour estuary, with larger expanses towards the eastern end. They remain exposed or partially submerged at high tide, and are of considerable importance in their own right (e.g. for specialist plants and invertebrates) and as an essential supporting habitat for the waterbirds mentioned above.

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 of *Coastal Access: Natural England's Approved Scheme 2013.*

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

Evidence is also gathered, as appropriate, from a range of other sources which can include information and data held locally by external organisation or individuals, or from the experience of local landowners, environmental consultants and occupiers of land. 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 landowners and occupiers, conservation organisations and 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(s) 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 wellmaintained 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 while ensuring appropriate protection for affected European sites.

A key consideration in developing coastal access proposals for the Stour estuary has been the potential for disturbance of non-breeding waterbirds as a result of recreational activities, and particularly by visitors with dogs.

Our objectives have been to:

- Avoid exacerbating issues at sensitive locations by making use of established coastal paths.
- Where there is no suitable established and regularly used coastal route, develop proposals that take account of risks to sensitive nature conservation features and incorporate mitigation as necessary in our proposals.
- Clarify when, where and how people may access the foreshore and other parts of the coastal margin on foot for recreational purposes.
- Work with key local organisations to design detailed proposals that take account of, and complement efforts to manage access in sensitive locations.
- Where practical, incorporate opportunities to raise awareness of the importance of this stretch of coast for wildlife and how people can help protect it.

V) Conclusion

We have considered whether our detailed proposals for coastal access between Harwich and Shotley Gate might have an impact on the Stour and Orwell Estuaries SPA and Ramsar site. In Part C of this assessment we identify some possible risks to the relevant qualifying features and conclude that proposals for coastal access, without incorporated mitigation, may have a significant effect on these sites. In Part D we consider these risks in more detail, taking account of avoidance and mitigation measures incorporated into our access proposal, and conclude that there will not be an adverse effect on the integrity of either site. These measures are summarised in table 2 below.

Risk to conservation objectives	Relevant design features of the access proposal
Disturbance to foraging or resting non-breeding waterbirds (waders and waterfowl) both within the SPA/Ramsar site and	 Relevant design features fall into three categories: route alignment, coastal margin and signage. Route alignment Where there are large existing gaps in shoreline access we propose inland alignment of the trail, notably the shoreline between Bradfield and Mistley, and between Graham's Wharf and Markwell's Farm, south of Stutton.

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

Risk to conservation objectives	Relevant design features of the access proposal
	 Relevant design features of the access proposal A large proportion of the trail alignment is on existing public rights of way (PRoW), where legal rights of access would continue unaffected, even if the trail were to be located inland. Any totally new lengths of trail (i.e. not on or near existing PRoW or walked routes) to be located some distance inland of the estuary. There are places where we propose that the trail be located on existing walked routes (i.e. non-PRoW) on or near the shoreline, thereby introducing new rights of access. In these cases the trail would have either a neutral or positive effect, e.g: Short segments of trail where PRoW do not technically exist, but where public access is well established or encouraged by local authorities, e.g. at Skinner's Wall, Manningtree, and the seawall at the Royal Hospital School. On sections where the trail will follow a cliff-top or field-edge, this is less sensitive in terms of bird disturbance than where the existing PRoW runs along the beach or
	 foreshore. Where we propose 260m of new trail in the same field favoured by dark-bellied brent geese, to the north-east of Mistley Heath, it is to be located on a field edge 400m from the favoured area and invisible from it. Alignment of the trail slightly inland at Wrabness Nature Reserve to enable management of shoreline access if appropriate in the future, and to exploit existing shrubs as screening. Alignment of the new section of trail landward of the saltmarsh and foreshore near the headland to the south of Nether Hall, Harkstead. Location of the trail 300m inland of Factory Marsh
	saltmarsh. Coastal margin All of the SPA/ Ramsar saltmarsh and the great majority of
	the intertidal mud are unsuitable for walking and access will therefore be excluded by direction under section 25A. Of

Risk to conservation objectives	Relevant design features of the access proposal		
	the limited intertidal areas where this will not apply, nearly all are alongside beaches where existing levels of access are relatively high and they are therefore less sensitive to the limited increase in visitors likely to result from our proposals. The only saltmarsh where section 25A will not apply is the small, relatively insensitive area at The Walls, Mistley, which is just outside the European sites' boundary.		
	At Copperas Wood, Ramsey, where new rights of access to a large part of the margin could present a heightened risk of disturbance and there is ready access from the trail, we propose a 'No dogs' restriction on access. This will cover all of the margin between the railway and the shore.		
	Signage		
	Signage at five key locations, explaining the importance of the estuary for wildlife, the risks associated with disturbance, and how to avoid them. Also to highlight areas where dog walking has less impact. These will be at:		
	 The Quay, Harwich 		
	 Wrabness Nature Reserve 		
	 The Walls/ Quay St, Manningtree 		
	Lower Holbrook		
	Shotley Gate		
	Additional, site-specific signage at:		
	 Sluice Rill, near Wrabness Nature Reserve, advising of the threat posed by dogs off leads. 		
	 The saltmarsh at Ragmarsh Farm, advising of the absence of coastal access rights and the adverse effects of disturbance. 		
	 Copperas Wood RSPB reserve, highlighting the 'No dogs' restriction. 		

VI) Implementation

Once a route for the trail has been confirmed by the Secretary of State, we will work with Essex and Suffolk County Councils to ensure any works on the ground are carried out with

due regard to the conclusions of this appraisal and relevant statutory requirements and good practice (see Appendix 2).

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 Essex and Suffolk County Councils, the Environment Agency, Essex and Suffolk Widlife Trusts, The Suffolk Coast and Heaths AONB team, the RSPB, Grove Wildfowlers, Anglian Wildfowlers Association, 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: Edward Keeble, Anthony Harbott, Mark Nowers and Rick Vonk.

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:

- To secure a long-distance walking route around the whole coast; we call this the 'England Coast Path' (ECP) or 'the trail'.
- To secure an associated area of land within which, in appropriate places, people will be able to spread out and explore, rest or picnic. This area is called 'coastal margin' (or 'the margin'), and the accessible parts of it are known as 'spreading room'.

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 has been approved by the Secretary of State for this purpose, as the legislation requires.

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 site¹', 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(s) 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* (see 'References to evidence'). 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.

The technical memorandum may be viewed here:

http://publications.naturalengland.org.uk/publication/5327964912746496?category=50007

A2. Details of the plan or project

This assessment considers Natural England's proposals for coastal access along the stretch of coast between Harwich and Shotley Gate, i.e. around the Stour estuary. Our proposals to the Secretary of State, for this stretch of coast, are presented in a series of reports that explain how we propose to implement coastal access along each of the constituent lengths within the stretch. Within this assessment we consider each of the relevant reports, both separately and as an overall access proposal for the stretch in question

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

As noted above, our proposals consist of two elements: the ECP and the associated coastal margin (our proposed trail alignment for this stretch is shown on Map A). For each of these elements there are specific factors we have taken into account, the most important of which are explained below. The subject of 'restrictions and exclusions' is also addressed below, as it is particularly relevant to the potential impacts of our proposals on nature conservation. The establishment and future management of the trail are also addressed.

England Coast Path

Once complete, the ECP will be a continuous walking route around the coast of England, and England's longest national trail. It will be established by utilising coastal paths, with existing public access rights, and linking them with new sections of path where necessary, and will be established and maintained to National Trail quality standards.

Where the coastline may be subject to erosion by the sea, we are able to propose that the trail is subject to 'roll back' so that it can keep pace with erosion/ slippage, without further confirmation by the Secretary of State. Coastal erosion is a common feature on the Stour estuary, and the ability of the trail to roll back will be important in solving long-standing difficulties with maintaining a continuous shoreline route on the Harwich to Shotley Gate stretch.

Coastal Margin

The extent of coastal margin is largely determined by the approved alignment of the trail. All land to seaward of the trail (as far as mean low water) automatically becomes coastal margin, and certain land types immediately to landward of the trail also fall within the margin, by default. We are also able to recommend that the landward boundary of the coastal margin is extended in certain circumstances. There are two places on the Harwich to Shotley Gate stretch where landward coastal margin is either created by default or we propose that it be created: landward of Skinner's Wall, Lawford, and the wooded cliffs and adjacent road verge at Shotley Gate (see sections HSG-4-S010 to HSG-4-S013 on map HSG 4a, report HSG 4, and HSG-6-S038 on map HSG 6f, report HSG 6).

As noted above, there is a right of access to much of the coastal margin, but there are important exceptions to this. Within the margin on the Harwich to Shotley Gate stretch there are extensive areas of land regarded as 'excepted', i.e. where access rights do not apply. Categories of excepted land particularly relevant locally include 'land covered by buildings or the curtilage of such land', 'land used for the purposes of a railway' and also 'arable land', although the trail itself may be aligned here.

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

Where public access on foot already takes place on land within the margin without any legal right for people to use the land in this way, the new coastal access rights will secure this

existing use legally. Access secured in this way is subject to various national restrictions. It remains open to the owner of the land, should they wish, to continue tolerating other types of established public use not provided for by coastal access rights.

Restrictions and exclusions

Local restrictions and exclusions relating to coastal access rights may be implemented through directions given by Natural England. There are several grounds on which a direction may be given. Section 6.6 of the *Coastal Access Scheme* sets these out and explains our approach to their use.

Of particular relevance to this assessment is that most areas of saltmarsh and mudflat within the Stour estuary are considered unsuitable for public access and we therefore propose that they are excluded from the new coastal access rights at all times, regardless of any other considerations. Provision for us to do this is made under section 25A of CROW.

Because the majority of the coastal margin will have coastal access rights excluded from it under s25A, we do not expect there to be any impact on nature conservation features from new coastal access rights in these areas. Should the exclusion under s25A become unnecessary at any time in the future we will consider the need for further measures to protect the designated features of interest. On the Stour estuary this would be likely to included measures to restrict or exclude access under section 26(3)(a) of CROW, which may be used to protect sensitive wildlife.

We also propose that dogs are excluded from a large area within the coastal margin at Copperas Wood (north of the railway line) in order to reduce the potential for disturbance of non-breeding waterbirds; this direction is made under section 26(3)(a) of CROW and supports existing management by the RSPB.

We propose one other direction on the Harwich to Shotley Gate stretch, made under section 24 of CROW, which relates to land management: a 'dogs on leads' restriction to apply from 1 August to 31 January each year, to reduce the potential for disturbance of game birds on a commercial shoot adjacent to Holbrook Bay.

Please see maps F1-F6, and 6a, of the Overview for details of proposed restrictions and exclusions. There are also similar, length-specific, maps included within each of the separate coastal access reports. Note that the only significant area of saltmarsh within the estuary not covered by the proposed section 25A exclusion is Hopping Bridge Marsh; the narrow ribbon of saltmarsh adjacent to The Walls, Mistley, which is outside the SPA/ Ramsar site boundary. Most areas of intertidal mud are also covered, but there are narrow strips which are not; these are generally alongside beaches and are also depicted on Overview maps F1-F6 and the similar maps within each of the reports.

Establishment and maintenance of the England Coast Path

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, and to prepare for opening, including any special measures that have been identified as being necessary to protect the environment, will be carried out before the new public rights come into force on this stretch. Details of the works to be carried out and the estimated cost are provided in the access proposals. The cost of establishment works will largely be met by Natural England. An exception is near Stutton, where trail establishment is dependent on the re-building of a short length of degraded seawall, the cost of which is proposed to be largely met by the landowner.

Works on the ground to implement the proposals will be carried out by Suffolk and Essex County Councils, 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.

It is essential that establishment works associated with coastal access proposals are carried out with full regard to nature conservation/ environmental constraints, a summary of the most important considerations being provided in Appendix 2

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

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

The Stour and Orwell Estuaries Ramsar site, SPA, and component SSSIs are shown on maps B, C and D respectively.

Notes on terminology:

- Throughout this assessment we use the term 'European sites' to include both SPA and Ramsar sites.
- Coastal defences: We use the term 'seawall' to describe the earth banks protecting low-lying land from tidal flooding. The 'folding' is the strip of level ground adjacent to a seawall on its landward side. There is often a 'borrowdyke' further to landward; normally the source of material originally used to build the seawall.

Stour and Orwell Estuaries SPA

The estuaries include extensive mud flats, low cliffs, saltmarsh, and small areas of vegetated shingle in the lower reaches. The SPA also includes areas of low-lying grazing marsh at Cattawade Marshes. In winter the site holds major concentrations of waterbirds, especially geese, ducks and waders, while in summer it supports breeding avocet *Recurvirostra avosetta*. The geese also feed, and some waders roost, in surrounding areas of agricultural land outside the SPA.

In 2007, Ravenscroft and others reported that the Stour estuary provided habitat for 30,000 waterbirds each winter, down from 50,000 15 years previously.

Stour and Orwell Estuaries Ramsar site

Extensive mudflats border the channel, supporting large patches of eelgrass, *Zostera* spp. The saltmarsh tends to be sandy and fairly calcareous with a wide range of communities. There are small areas of vegetated shingle on the foreshore of the lower reaches. The Stour estuary is a relatively simply structured estuary with a sandy outer area and muddier inner section. The mud is rich in invertebrates and there are areas of higher saltmarsh. The shoreline vegetation varies from oak-dominate wooded cliffs, through scrub-covered banks to coarse grasses over seawalls, with reed-filled borrowdykes behind.

Table 3. Qualifying features

Qualifying Feature	Stour and Orwell Estuaries SPA	Stour and Orwell Estuaries Ramsar Site
A132 Pied avocet Recurvirostra avosetta (Breeding)	~	
A046a Dark-bellied brent goose <i>Branta bernicla bernicla</i> (Non-breeding)	~	~
A054 Northern pintail Anas acuta (Non-breeding)	\checkmark	~

Qualifying Feature	Stour and Orwell Estuaries SPA	Stour and Orwell Estuaries Ramsar Site
A141 Grey plover Pluvialis squatarola (Non-breeding)	V	~
A143 Red knot Calidris canutus (Non-breeding)	✓	*
A149 Dunlin Calidris alpina alpina (Non-breeding)	✓	*
A156 Black-tailed godwit <i>Limosa limosa islandica</i> (Non- breeding)	1	*
A162 Common redshank Tringa totanus (Non-breeding)	\checkmark	*
Waterbird assemblage	✓	~
Invertebrate assemblage		~
Vascular plant assemblage		~

Note on finding information on specific sites: There are numerous sensitive conservation sites in and around the Stour estuary and a large proportion of this document is therefore given over to consideration of each of them in turn. Any reader interested in individual sites and how our proposals might affect them, without necessarily reading about the full HRA process, should refer directly to D3.2.

At the beginning of D3.2 there is a table of all the sites described, each site being ascribed a reference letter which may be used to locate the site in the succeeding pages (the sites being in alphabetical order), and on map E. The saltmarsh sites are also listed in the order in which they occur as the trail is followed around the estuary from Harwich to Shotley Gate; they are followed by sites outside the SPA also used by waterbirds, in no particular order.

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.

Regarding the European sites which could be affected by the plan or project, this assessment will be informed by the site-specific Conservation Objectives, including any available supplementary advice, available via this link:

https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=Stour%20&%20Orwell&countyCode=&respon siblePerson=&DesignationType=SPA

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 in 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 (in this case the Stour & Orwell Estuaries SPA) 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 sites' qualifying features)?

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

Conclusion:

As the plan or project is not either directly connected with, or necessary to, the management of <u>all</u> of the European sites' qualifying features, and/or contains non-conservation elements, further Habitats Regulations assessment is required.

C2. Is it likely there will be significant adverse effect(s)?

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 sites' features and (b) could conceivably adversely affect either European site, could have a **likely significant effect (LSE)** on the European sites. This might be either acting alone, or in combination with other plans and projects. We consider whether such effects could undermine the achievement of the sites' 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 sites.

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

C2.1 Risk of Significant Effects Alone

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

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

For the purposes of this assessment, the qualifying features of the European sites listed in B1 have been grouped as shown in table 4, to make assessment easier and to avoid repetition where species have similar needs.

Table 4. Feature groups

Feature group	Qualifying features
Overwintering	Dark-bellied brent goose Branta bernicla bernicla (Non-breeding)
and passage waterbirds	Northern pintail Anas acuta (Non-breeding)
	Grey plover Pluvialis squatarola (Non-breeding)
	Red knot Calidris canutus (Non-breeding)
	Dunlin Calidris alpina alpina (Non-breeding)
	Black-tailed godwit Limosa limosa islandica (Non-breeding)
	Common redshank Tringa totanus (Non-breeding)
	Waterbird assemblage, comprised of: Cormorant <i>Phalacrocorax carbo</i> , great crested grebe <i>Podiceps cristatus</i> , dark-bellied brent goose <i>Branta bernicla bernicla</i> , shelduck <i>Tadorna tadorna</i> , wigeon <i>Anas penelope</i> , gadwall <i>Anas strepera</i> , northern pintail <i>Anas acuta</i> , goldeneye <i>Bucephala clangula</i> , ringed plover <i>Charadrius hiaticula</i> , black-tailed godwit <i>Limosa limosa islandica</i> , grey plover <i>Pluvialis squatarola</i> , lapwing <i>Vanellus vanellus</i> , curlew <i>Numenius arquata</i> , dunlin <i>Calidris alpina alpina</i> , common redshank <i>Tringa totanus</i> , red knot <i>Calidris canutus islandica</i> , turnstone <i>Arenaria interpres</i> .
Overwintering and passage waterbirds using fields outside the SPA/ Ramsar site	Notably, dark-bellied brent geese and curlew, but also including others of the above non-breeding species on a semi-regular basis, often depending on the extent of saltmarsh inundation by spring tides; examples include lapwing, common redshank and shelduck.
Breeding avocet	Pied avocet Recurvirostra avosetta (Breeding)
Saltmarsh	Characteristic saltmarsh plants, including seven nationally scarce plants listed under Ramsar criterion 2 : stiff saltmarsh-grass <i>Puccinellia rupestris</i> , small cord-grass <i>Spartina maritima</i> , perennial glasswort <i>Sarcocornia perennis</i> , lax-flowered sea lavender <i>Limonium</i> <i>humile</i> , and the eelgrasses <i>Zostera angustifolia</i> , <i>Z. marina</i> and <i>Z.</i> <i>noltei</i> The Ramsar Information Sheet also lists five British Red Data Book invertebrates as being among noteworthy fauna: the muscid fly <i>Phaonia fusca</i> , the horsefly <i>Haematopota grandis</i> , two spiders <i>Arctosa fulvolineata</i> and <i>Baryphema duffeyi</i> , and the endangered
	swollen spire snail <i>Mercuria confusa.</i>

In the table below we consider whether our proposals, when considered in isolation, are likely to have an effect on the qualifying features:

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Over- wintering and passage waterbirds	Disturb- ance of feeding or resting birds.	 Birds feeding on the foreshore or resting in the vicinity of a coastal path, or within the coastal margin, may be disturbed by recreational activities including walking and walking dogs. If disturbance occurs repeatedly it can lead to reduced fitness of individuals, which may affect their ability to survive adverse conditions, migrate and/ or breed. It may also lead to contracted distribution within the site and reduced population levels. The waterbirds within this broad grouping are treated as a single feature group because they have generally similar characteristics in terms of their habitats and vulnerability to disturbance. However, the group includes sub-groups which can behave differently and use habitats in ways that make them more or less prone to disturbance: 1. Birds that feed on the expansive intertidal sediments and roost primarily on the numerous higher areas of saltmarsh, at high tide. This is the largest sub-group and it includes many waders and wildfowl, black-tailed godwit being a good example, 7.3% of the UK population being found here. 2. Diving waterbirds, such as great crested grebe and cormorant. The geographical 	 The level of risk is higher where access proposals: introduce new access routes or newly accessible areas within the coastal margin, or increase existing levels of recreational activity, and are close to areas frequented by larger numbers of birds for feeding or resting. The risk of disturbance is increased on rising tides when birds are forced to feed closer to seawalls and the trail/ footpath. The risk of disturbance generally decreases as water levels fall and birds are able to feed on areas of exposed mud further away from seawalls and the trail/ footpath. This is because they are less likely to be taken unawares and expansive areas of exposed mud are generally unappealing to walkers. 	Yes

Table 5. Assessment of likely significant effects alone

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		separation of the favoured roost sites (mid-channel marker buoys) and feeding areas (deep water, mid- channel) from the shoreline, means that disturbance by walkers or dogs is unlikely. 3. Waterbirds such as dark- bellied brent geese, lapwing and curlew which, as well as utilising the estuary itself, also feed or roost on nearby fields. The Stour supports the highest concentrations of curlew (wintering and passage) within the Suffolk estuary complex (Piotrowski 2003). There is much overlap between these behavioural groups and some birds are difficult to categorise. Birds which not only use the estuary but also depend on fields outside the SPA/ Ramsar wetlands are considered again below, in that context.		
Overwintering and passage waterbirds using fields outside the SPA/ Ramsar wetland	Disturb- ance of feeding or resting birds while they are making use of nearby fields	Birds feeding or resting close to a coastal path, or within the coastal margin, may be disturbed by recreational activities including walking and walking dogs. Dark-bellied brent geese and curlew are the primary species in this feature group, but there are other species that regularly or occasionally move from the estuary to nearby fields, e.g. lapwing, common redshank and shelduck. This behaviour is often determined by the	Our trail alignment proposals, as they relate to the species in this feature group, generally make use of established recreational routes. The risk of new patterns of potentially damaging activity developing in these areas as a result of coastal access proposals is generally low, commensurate with the expected increase in levels of activity. However, consideration was initially given to proposing a route on or near the shoreline	Yes

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		shortage of suitable habitat within the estuary caused by especially high tides. The sensitivity of these birds to disturbance varies with a range of factors including species and time of year.	 in the arable field to the south of Markwell's Farm (not an existing walked route – see D3.2O). This would have been likely to have an impact on certain bird species, notably curlew (an SPA assemblage species), which often move into the field from the neighbouring saltmarsh. In one location we propose a new section of route along the edge of an arable field regularly used by large numbers of dark-bellied brent geese (see D3.2N). However, the risk of disturbance remains low here, because of: the extent of spatial separation, the local topography, and the field being excepted land in terms of access within the coastal margin. 	
Breeding avocet	Disturb- ance of nesting birds	Breeding avocets are vulnerable to disturbance by recreational activities including walking and walking with dogs. The mosaic of habitats within Cattawade Marshes RSPB reserve, at the western end of the Stour estuary (TM 095 331), are supplemented by sympathetically managed, privately owned land immediately to the west of the reserve. Together, these make up a broad swathe of low-lying, wet habitats between the upper Stour estuary and slightly elevated	No appreciable risk. Cattawade Marshes is close to the proposed trail alignment, which at that point follows the seaward (eastern) side of the busy A137, but the site is landward (west) of both trail and road. Public access to the site is not encouraged by the site manager, RSPB, and much of the nesting area is enclosed by a secure anti- predator fence. No landward margin/ new access rights are proposed in this area. There are two popular footpaths which loosely connect with the trail	No

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		freshwater River Stour, which flow in parallel for a short distance. This area provides most of the Stour's avocet breeding habitats, with a mean of four pairs nesting annually on Cattawade Marshes since they first did so in 2008. In 2017 they also bred on White Horse Marsh, to the west (pers. comm. Nowers, M, RSPB). As part of the European sites, Cattawade Marshes contributes to the total of 21 pairs of breeding avocet (1996-2000 mean). Avocet breeding habitats within the Stour and Orwell estuaries are far less extensive than feeding areas and, within these, avocet favour locations with low levels of disturbance.	route and allow users to walk along the Stour valley to the west (one off the A137 at TM 098 326, the other off the linking B1070, at TM 094 335). However, these are separated from bird breeding areas within the grazing marshes by the tidal Stour estuary and the freshwater R Stour respectively. There are already high levels of background activity in the wider area. The majority of existing pedestrian use of the A137 is by commuters going to and from Manningtree Station and other non- recreational walkers moving between Brantham and Lawford/ Manningtree. National trail status is expected to bring about a small increase in the numbers of people using the trail route and, potentially, footpaths linking to the upstream River Stour, for recreational purposes, but this is unlikely to pose an increased threat to Cattawade Marshes, for the reasons outlined above.	
Saltmarsh	Trampling of fragile vegetation and associated invert- ebrates	Vegetation may be damaged or prevented from establishing where people regularly walk away from established paths. This would particularly apply to pioneer vegetation in the softer areas. Saltmarsh invertebrates may also be affected by trampling, either directly (in the case of less mobile species such as snails and spiders), or	 No appreciable risk. For all of the SPA/ Ramsar designated saltmarsh on the stretch the level of risk is low because: The Coast Path will not pass through areas with saltmarsh vegetation. Within the coastal margin, no new access rights will be created over relevant areas of 	No

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		indirectly by damage to their habitats.	 saltmarsh, including areas where pioneer vegetation is establishing on soft mud. This is because we propose that a section 25A exclusion be applied to most of the saltmarsh and mudflat on the estuary, on grounds of public safety.* Activity will be focused on a well-maintained, waymarked coastal trail, with interpretation at key locations. A large proportion of the trail alignment is on existing PRoW. There are two notable locations where existing public footpaths technically pass through saltmarsh sites (at the Royal Hospital School, at TM 172 344, and the headland to the south of Nether Hall, Harkstead, at TM 192 334) but in these locations access is impossible/ difficult and we propose trail alignment inland of both sites, which should have positive effects. *Only a small area of saltmarsh within the stretch is not proposed to be covered by section 25A. This saltmarsh – Hopping Bridge Marsh – is located at The Walls, Mistley (TM 112 320), and is outside the SPA/ Ramsar boundary and within an area already exposed to 	

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
			very high levels of human activity.	

Conclusion:

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

* Dark-bellied brent goose, pintail, grey plover, knot, dunlin, redshank, black-tailed godwit (all non-breeding), SPA waterbird assemblage (non-breeding) – all within the European sites.

* Dark-bellied brent goose (non-breeding), curlew (non-breeding assemblage species) and other species (non-breeding) making use of fields outside the European sites.

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

- Saltmarsh.
- Avocet (breeding).

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 <u>not</u> themselves considered to be significant alone which must be further assessed to determine whether they could have a combined effect significant enough to require an appropriate assessment.

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

Further to the risks identified as being significant alone (in C2.1), 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. Therefore the possibility of a significant effect in combination has been ruled out.

The following risks are, therefore, excluded from further assessment:

- Disturbance of breeding avocet.
- Trampling of saltmarsh.

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

The conclusion reached in step one means that this step is not applicable to this assessment.

24 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

Step 3 – Would the combined effect of risks identified at Step 1 and Step 2 be likely to have a significant effect?

The conclusion reached in step one means that this step is not applicable to this assessment.

Conclusion:

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

- Saltmarsh
- Breeding avocet.

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

In light of the screening decision in section C3, above, 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 Qualifying Features 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 6. Scope of Appropriate Assessment

Environmental pressure	Qualifying Feature(s) affected	Risk to Conservation Objectives
Disturbance of feeding or resting birds	 Non-breeding waterbirds (dark-bellied brent geese, northern pintail, grey plover, red knot, dunlin, common redshank, black- tailed godwit), SPA waterbird assemblage (non-breeding). Dark-bellied brent geese, curlew, and other non- breeding species of waterbird making use of fields outside the European sites. 	Repeated disturbance to foraging or resting non-breeding waterbirds, following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.

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

One of the most important factors we take into account when proposing the alignment of the England Coast Path is the potential for the disturbance of birds. The Stour estuary is particularly broad and shallow, aligned east-west, with extensive areas of intertidal sediment and several discreet areas of saltmarsh within it. The terrain to north and south is shallowly undulating and predominantly arable with some grassland, with several areas being exploited as feeding and roosting sites for certain species of waterbirds.

There are relatively low levels of disturbance throughout much of the estuary, with urban areas being limited to its eastern and western limits. Areas of intense recreational activity elsewhere on the estuary are broadly limited to beaches midway along each of the Essex and Suffolk banks, at Wrabness and at Lower Holbrook/ Harkstead respectively; both are close to important bird habitats.

Within the Harwich to Shotley Gate stretch, disturbance is potentially particularly problematic for passage and wintering birds, and is especially damaging when it occurs repeatedly. Any activities causing disturbance during the autumn or spring migratory periods, or over the winter, can affect the birds' ability to feed or to rest effectively at roost sites, and can also increases energy expenditure (Panter & Liley 2016).

Mortality attributable to disturbance is likely to be greater in mid/late winter than at other times of year, because temperatures are lower, day lengths shorter, and food resources depleted. In autumn, newly-arrived long-distance migrants with depleted fat reserves may also be susceptible. Disturbance in spring, when migrants are feeding-up before leaving for their arctic breeding grounds, may also be damaging because breeding success is linked to their condition on arrival.

Disturbance is reduced where birds feel safer, i.e. where intertidal feeding areas are extensive enough to allow birds to move away from perceived threats without taking flight, and where saltmarsh acts as a buffer between feeding areas and footpaths and other sources of activity. Pinch points occur where saltmarsh is severely eroded or non-existent, where birds feeding on the mud may be pushed by a rising tide close to footpaths, onto agricultural land on the landward side of seawalls, or close to beaches used by the public for walking, fishing or boat launching.

High tide roost sites on saltmarsh are often at the furthest point of the saltmarsh from seawalls and isolated by a complex of interconnecting channels or saltmarsh fragmentation, which makes the birds feel safer. Where there are no creeks or fences to restrict access, walkers or their dogs straying more than a few metres onto saltmarsh will often flush birds from roost sites. When high spring tides push roosting birds closer to seawalls they are more likely to be disturbed, potentially even by walkers and dogs sticking to the seawalls.

A study of disturbance of waterbirds wintering on the Stour and Orwell estuaries (Ravenscroft and others, 2007) came to ten conclusions, the most relevant to this assessment being:

- Shore activities, in particular people and those with dogs, caused most of the disturbance recorded in the SPA, but usually displaced small numbers of birds.
- Activities at high tide caused twice as much disturbance than those at low tide.
- Fewer birds occurred where levels of activity, not disturbance, were greater.
- Activity rates were relatively low on the Stour and the wide mudflats and absence of boat traffic on the channel reduced the effects of activities at low tide.
- But any increase in shore activities on the Stour will increase the disturbance of important roosts that serve both the Stour and birds displaced from the Orwell.'

On any estuary there is the potential for increases in recreational activity to have adverse environmental impacts, but the above findings highlight the particular value of the Stour estuary resulting from its broad areas of intertidal habitat, relatively low levels of shore-based disturbance at high tide, and relatively low levels of water-based disturbance at low tide, the first two of these three factors clearly being relevant to the England Coast Path project.

A subsequent report by Vonk & Gibson (2008) reinforced the importance of these findings and one of its two conclusions were that a recreation management strategy be developed and incorporated within the *Stour and Orwell Estuaries Management Plan* (summarised in Appendix 1). It also recommended that local authority rights of way officers be involved from an early stage; a recognition of the key role of recreational walking routes alongside the estuary.

On numerous occasions during research for this assessment, the issue of disturbance of birds by dogs (especially off-leads) was raised as the single most important issue by those involved in nature conservation on the estuary. This concern had previously led to the commissioning of a report on visitors with dogs within the Stour & Orwell Landscape Partnership Scheme Area (Jenkinson 2017), which identified three areas for future activity:

- Facilitating the development and delivery of effective integrated management policies and plans across this Landscape Partnership Scheme area.
- On-site Infrastructure and information improvements.
- Off-site information and influence.

This was a strategic document which did not make detailed recommendations that could be addressed by this document, but our proposals take into account the aspirations set out in the report, and the concerns of those who commissioned it.

Birds feeding or resting in fields outside the European sites

Dark-bellied brent geese are given special consideration because flocks make regular and frequent use of several fields outside the European sites, not all of which are immediately adjacent to the estuary. However, as noted above, there are other species that regularly or occasionally move from the estuary (generally to fields closer to it, especially when there is a shortage of suitable habitat within the estuary due to especially high tides), including lapwing, curlew, and shelduck (all part of the SPA assemblage qualification).

Historically, most brent geese fed on sea grass (*Zostera* spp.) and the green marine algae (*Enteromorpha*) on intertidal mud. However, there has been a widespread decline in sea grasses and dark-bellied brent geese now appear to be largely dependent on winter wheat and winter barley, oil seed rape, grass fields and amenity grasslands.

Numbers of dark-bellied brent geese overwintering on the Stour and Orwell estuaries have been stable in the medium term, having previously increased. On the Stour they mainly roost at the outer edges of saltmarsh at Stone Point (TM 180 324) and further east within Copperas Bay (TM 214 318).

They habitually feed in large numbers on winter cereal in a field to the north-east of Mistley Heath (TM 135 311), and often in the fields to the north-west of Stutton Mill (TM 130 333) and south of Erwarton (TM 222 341), depending on the crops being grown in particular years. When feeding on farmland they are more wary and more easily put up than when on mudflats. Owens (1977) found that the maximum, as well as the mean distance at which geese were disturbed increased with increasing flock size. A number of studies have also concluded that larger flocks of birds are warier and more easily disturbed than smaller flocks because there is a greater chance of larger flocks containing "jumpy" individuals which are liable to startle the rest of the flock (e.g. Owens 1977).

Owens also noted that at the beginning of winter brent geese were put to flight by a higher proportion of people approaching to within 50-200m than in late winter and that they were more easily disturbed on fields behind seawalls than on the saltmarshes. However, Natural England staff have observed that in some locations dark-bellied brent geese appear to tolerate walkers and dogs where borrowdykes present an effective barrier, suggesting older birds returning to the same estuaries each year may have learned to recognise safe feeding areas.

As noted above, the Stour supports the highest concentrations of curlew (wintering and passage) within the Suffolk estuary complex (Piotrowski 2003), and they often congregate in large numbers in the field immediately landward of the saltmarsh near Markwell's Farm (TM 164 342).

According to the Curlew Recovery Programme (rspb.org.uk, 2019) the UK hosts between 19 and 27 percent of the global breeding population of curlews, and approximately 150,000 individuals in the winter, making the UK '…arguably the most important country for curlews in the world'. Despite this, numbers of curlews in the UK declined by 65% between 1970 and 2015 (JNCC, 2017). Their decline is thought to be primarily linked to changes in agricultural practices, but they are also particularly sensitive to disturbance. Collop and others (2016) demonstrated that the distance at which curlews take flight when approached by

humans is considerably greater than for other wading birds studied, and that they also tend to stay in the air for longer, there appearing to be a correlation between species size and sensitivity to disturbance.

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

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

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

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

The key nature conservation issue for the Harwich to Shotley Gate stretch is the need to protect nonbreeding waterbirds from disturbance.

In this section of the assessment we describe our overall approach to the issue and the main mitigation measures proposed to address the impacts and risks. It is important to note that we propose to exclude access to the great majority of saltmarsh and mudflat on the Stour estuary under section 25A of CROW 2000. Section 25A may only be used to exclude access specifically on grounds of safety, but its application would clearly also help achieve the above objective.

There is one area of saltmarsh we propose should not be covered by section 25A: a narrow ribbon of saltmarsh adjacent to The Walls, Mistley (TM 112 320). Access to this site is a little easier than others on the stretch, but disturbance of birds as a result of our proposals is less of an issue here when considered in the context of high existing levels of human activity. Also, this saltmarsh is outside the SPA/ Ramsar site boundary.

It is readily apparent to walkers that most areas of saltmarsh on the Stour are inherently unsuitable for access and/ or the areas of saltmarsh are separated from access routes by creeks that would be extremely difficult and unpleasant to cross. Most intertidal areas are also unappealing or hazardous to access. Given this, and the application of the section 25A access exclusion, the focus of our attention is on avoiding disturbance of non-breeding birds by walkers and dogs in close proximity to saltmarshes, intertidal areas and on adjacent land.

Waterbirds feeding on intertidal mud: overview

Assessment of the potential for disturbance of protected waterbirds on individual saltmarsh and field sites is considered in D3.2, below. In this section we consider potential impacts on the birds' ability to feed on intertidal mud throughout the estuary. Consideration is given not just to disturbance that is significant enough to cause the birds to take flight, but to anything that distracts them from feeding.

As noted above, the Stour estuary is particularly broad and shallow, with extensive mudflats. This benefits feeding waders because it means a) there is a large food resource, and b) they are able to exploit a large proportion of the resource without straying too close to the shore, where they're more likely to be disturbed.

Different parts of the estuary are important for different species at different times, e.g. the mudflats near the saltmarsh at Ragmarsh Farm, Bradfield, are especially important for knot, which feed here in numbers of 3-4,000 thousand or more between tides (pers. comm. Nowers, M).

As with any estuary, in every tidal cycle on the Stour there comes a point when water levels have increased to the point where the only exposed mud available is close enough to the shore that birds are at risk of being disturbed. This distance varies greatly between species, and is also affected by how hungry the birds are. Should disturbance take place, though, the choice of alternative feeding areas is likely to be limited by the height of the tide and they may have to fly some distance, wasting energy as they do so.

The process is repeated shortly after high tide, as water levels drop. As it does so, birds that are less sensitive to disturbance will move in quickly, other species following later as more mud becomes exposed.

Disturbance is particularly problematic when it occurs repeatedly, and when there has been a prolonged cold spell, when the birds have been able to feed less and they have expended more energy keeping warm.

The total length of shoreline within the Harwich to Shotley Gate stretch is approximately 39km. Of this, approximately 9km is urban. Of the remaining 30km, 21km (70%) is served by existing shoreline PRoW which will retain their legal status regardless of what route is approved for the England Coast Path by the Secretary of State. This means that, in general terms, the existing potential for disturbance of birds feeding close to the shore for a short period either side of high tide is relatively high for the estuary as a whole, but varies considerably according to the levels of activity on particular sections of PRoW.

Despite the large proportion of shoreline that is either urban or served by existing PRoW, there are four substantial lengths of shoreline that currently remain free of public access and where waterbirds may normally feed whenever suitable substrate is exposed by the tide:

- The eastern half of Copperas Bay (3km on the Essex bank) (TM 214 318)
- Bradfield to Mistley (1.9km on the Essex bank) (TM 130 317)
- Brantham Industrial Estate (1.8km on the Suffolk bank) (TM 108 323)
- Graham's Wharf to Markwell's Farm (1.8km on the Suffolk bank) (TM 158 338)

Taken together, these areas comprise 22% of the total shoreline within the stretch. Each will attract a mix of species which may vary with the state of the tide, for instance the foreshore between Bradfield and Mistley is particularly important for pintail, which occur in nationally important numbers and favour the creeks and rills and will move closer to the shoreline as the tide encroaches.

Waterbirds feeding on intertidal mud: our access proposals

As stated above, there are four lengths of undisturbed shoreline that currently make up 22% of the total. In two of these locations we are unable to consider shoreline trail alignment because the land itself is excepted (Brantham Industrial Estate), or because the shoreline land is surrounded on all landward sides by excepted land, so there are no potential routes in or out (Bradfield to Mistley). In the other two areas (Copperas Bay and Graham's Wharf to Markwell's Farm), one of the reasons we are avoiding proposing a shoreline trail alignment is to avoid increasing the risk of disturbance of feeding waterbirds when they are pushed closer to the shore (also, at Copperas Bay, no through-route would have been available, due to excepted land to the south and east).

Within the stretch, we propose a total of nearly 8km of 'new' route, made up of numerous segments of trail varying in length from 100m to 2.3km. However, over half of this total will effectively be reinstating long-standing PRoW that have been undermined by coastal erosion and are now, in a legal sense, located on beach or foreshore. As such, these new segments of route will largely be reducing the potential for disturbance of feeding birds by providing signposted, well maintained routes inland of existing PRoW and further away from the birds' foraging areas. In two places (near Nether Hall, Harkstead), these 'alternative to existing PRoW' routes will be located to landward of small areas of saltmarsh, thus further reducing the potential for disturbance of roosting birds.

All of the *totally* new sections of route (i.e. those not related to existing PRoW/ walked routes) are some distance inland of the shoreline and will therefore have no direct effect on birds feeding on the foreshore (this includes the longest segment of new route, at 2.3km, between Ray Lane and Copperas Wood).

As noted above, we propose the great majority of saltmarsh and mudflat within the estuary be covered by a section 25A access exclusion on public safety grounds. A beneficial side effect of this will be to avoid the introduction of new access rights that would otherwise have increased the potential for disturbance of birds.

As acknowledged above, one of the most important factors re disturbance of waterbirds on the Stour and Orwell estuaries is walking with dogs (Ravenscroft and others, 2007). We propose to install interpretation boards in five key locations. These will include messages about responsible dog walking. We also propose signage specifically about dogs in two key locations: at Copperas Wood (TM 198 317), where we also propose a 'no dogs' exclusion covering the coastal margin between the railway line and the shoreline, and near Sluice Rill, north of Wrabness Nature Reserve (TM 163 318), where dogs off leads on/ near the foreshore are an established, on-going problem.

Waterbirds feeding on intertidal mud: risks posed by our access proposals

An important consideration has been the extent of spreading room within the coastal margin. Regardless of how far back from the shoreline we propose the trail be located, any shoreline land to seaward of it that is not excepted land or subject to an access restriction or exclusion will be legally accessible. We have carefully considered where this might present the potential for disturbance of waterbirds despite the application of section 25A. We have concluded the only significant area where this might be an issue is at Copperas Wood, where we propose to address the risk by application of the exclusion described above, which will be complimented by ongoing, active management by the RSPB.

In summary, we have considered the possible risks to SPA birds feeding on intertidal mud throughout the estuary and have concluded there are several factors that will combine to ensure no new adverse impacts should result from coastal access proposals, and that there should be beneficial effects in some areas:

- We have been unable to consider, or have decided not to propose, new shoreline routes in the four areas currently lacking shoreline access, which total 22% of the entire shoreline.
- A large proportion of the proposed trail is aligned along existing public footpaths, or provides an alternative, cliff-top/ field edge alignment to segments of public footpaths that have been undermined by coastal erosion. In the latter case, levels of disturbance should be reduced compared with current levels.
- All totally new sections of route are some distance inland of the shore.
- We propose exclusion of access under section 25A for the great majority of saltmarsh and mudflat within the estuary.
- We propose a 'no dogs' exclusion in the one significant area within the coastal margin where dogs might otherwise have had a substantial adverse impact.
- We propose signage to promote responsible dog management by dog walkers.
- We will be establishing a well maintained and easily followed trail.

Signage

There is an opportunity 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. We also propose to balance these messages with positive information about which areas are less sensitive and where dog walking, in particular, may be encouraged.

31 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

We propose to promote these messages on interpretation boards in five strategic locations around the estuary (at Harwich, Wrabness Nature Reserve, Manningtree, Lower Holbrook and Shotley Gate) and also through targeted, location-specific signage near Wrabness Nature Reserve (TM 163 318) and at Copperas Wood Nature Reserve (TM 198 317).

Natural England has developed a strong track record in this area through:

- Close work with partners such as the Kennel Club.
- Experience gained on our own National Nature Reserve (NNR) estate.
- Commissioning specialist advice from a leading consultant who provides evidence-based advice borne out of international research and experience of developing effective approaches to inducing behavioural change in dog owners.

We do not propose to install/ erect any signs or other infrastructure on priority/ sensitive habitats anywhere on the stretch.

Integration with external initiatives

A recent but important development within the wider area has been the establishment of Recreational Disturbance Avoidance and Mitigation Strategies (RAMS) in both Suffolk and Essex (summarised in table 9, section D4). Although these are not directly related to the England Coast Path, they have an influence on it, and *vice versa*. They are intended to provide strategic solutions to mitigate recreational impacts on sensitive, designated sites which are likely to arise as from increased housing provision in the surrounding areas over the coming years. For residential developments that fall within 13 km of the Stour estuary, the RAMS (or associated Supplementary Planning Documents) will specify requirements for developer contributions to an agreed and costed scheme of measures which have been developed to mitigate impacts. These measures include signage, and it is our intention that the signage we propose should be integrated with that proposed via RAMS; we have held discussions with the Suffolk Coast and Heaths AONB team about how this may be achieved.

Note: At the time of writing Natural England is about to propose to the Secretary of State that the AONB be extended to cover much of the Essex bank of the estuary, as well as the Suffolk bank (as it currently does), the public inspection of the draft Variation Order having taken place in spring 2019.

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

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

The key locations are depicted on Map E, and the features occurring at each of them are shown in the table below. To make it easier to cross–reference between this assessment and the corresponding Coastal Access Report, in which access proposals are made, the relationship between the geographic units used in this assessment and the report section numbers are given.

Table 7.	Summary	of key	locations
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Location	Cross reference to relevant Coastal Access Report	Non- breeding waterbirds within European sites	Non- breeding waterbirds on fields outside European sites
Saltmarsh sites within European sites			
A. Saltmarsh at Bath Side (TM 254 325)	Report HSG 1, maps HSG 1a and 1b. Route sections HSG_1_S008 to HSG_1_S022	√	
B. Saltmarsh and foreshore in the eastern half of Copperas Bay (TM 214 318)	Reports HSG 1 and HSG 2, maps HSG 1d, 2a and 2b. Route sections HSG_1_S041 to HSG_2_S010	~	
C. Saltmarsh to east of Stone Point (TM 180 324)	Report HSG 2, map HSG 2c. Route sections HSG_2_S018 to HSG_2_S022	~	
D. Saltmarsh and foreshore near Wrabness Nature Reserve (TM 162 317)	Report HSG 3, maps 3a and 3b. Route sections HSG_3_S008 to HSG_3_S014	V	
E. Saltmarsh at Ragmarsh Farm (TM 150 315)	Report HSG 3, map 3b. Route section HSG_3_S018	~	
F. Hogmarsh (north of Lawford) and associated field/ intertidal reversion to the north-west (TM 104 324 and TM 102 327)	Report HSG 4, maps HSG 4a and 4b. Route sections HSG_4_S011 to HSG_4_S026	V	
G. Factory Marsh, south of Brantham (TM 112 328)	Reports HSG 4 and HSG 5, maps HSG 4b and 5a. Route sections HSG_4_S028 to HSG_5_S002	~	
H. Saltmarsh at Stutton Mill (TM 131 329)	Report HSG 5, maps HSG 5a and 5b. Route sections HSG_5_S005 to HSG_5_S008	✓	
I. Saltmarshes between Markwell's Farm and Lower	Reports HSG 5 and HSG 6, maps HSG 5e and 6a. Route sections HSG_5_S022 to HSG_6_S003	✓	

Location	Cross reference to relevant Coastal Access Report	Non- breeding waterbirds within European sites	Non- breeding waterbirds on fields outside European sites
Holbrook (TM 164 342 to TM 175 345)			
J. Headland to south of Nether Hall, Harkstead (TM 192 334)	Report HSG 6, map HSG 6b. Route sections HSG_6_S016 to HSG_6_19	\checkmark	
K. Saltmarshes in Erwarton Bay and at Johnny All Alone Creek (TM 224 338 and TM 207 333)	Report HSG 6, maps HSG 6c to 6e. Route sections HSG_6_S020 to HSG_6_S028	4	
Functionally linked land outside European sites			
L. Saltmarsh at The Walls, Mistley (TM 112 320)	Reports HSG 3 and HSG 4, maps HSG 3e and 4a. Route sections HSG_3_S048 to HSG_4_S001	n/a	n/a
M. Fields landward of saltmarshes at Stutton Mill, Royal Hospital School and Erwarton Bay (TM 130 333, TM 170 346 and TM 222 341)	Report HSG 5, map HSG 5a. Route section HSG_5_S005 Report HSG 5, map HSG 5e. Route sections HSG_5_S027 to HSG_5_S034 Report HSG 6, maps HSG 6d and 6e. Route sections HSG_6_S024 to HSG_6_S027		~
N. Field north-east of Mistley Heath (TM 135 311)	Report HSG 3, maps HSG 3c and 3d. Route sections HSG_3_S029 to HSG_3_S030		✓
O. Field inland of saltmarsh near Markwell's Farm (TM 164 342)	Report HSG 5, map HSG 5e. Route sections HSG_5_S022 to HSG_5_S029		✓
P. Field to north-east of Factory Marsh, at Brantham Hall Farm (TM 115 332)	Report HSG 4 and HSG 5, maps HSG 4b and 5a. Route sections HSG_4_S033 to HSG_5_S002		~

D3.2A Saltmarsh at Bath Side (TM 254 325)

I) Baseline situation

This roost site, in the eastern part of Bathside Bay, is an important one for a range of SPA species, its value being enhanced by the low levels of human activity, despite the general area being heavily urbanised. Bathside Bay is earmarked for future expansion of the existing port facilities and Natural England, the Environment Agency and a wide range of other organisations were heavily involved in negotiations over the measures necessary to mitigate and compensate for the environmental impacts of this development.

II) Detailed design features of the access proposal

This part of the Harwich to Shotley Gate stretch (Harwich, Dovercourt and Parkeston) is densely developed and there are expansive areas of excepted land associated with port, refinery and railway land. Further, the nearby A120 is unsuitable for use by pedestrians and the close proximity of the Manningtree to Harwich branch line is also a hindrance to access. As a result, our proposed trail alignment is some distance inland of the Bathside Bay shoreline.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. This is because the proposed trail alignment is remote from the shoreline, excepted land around the Bay is extensive (and protected by security measures), and general levels of human activity in the wider area (i.e. where the trail is proposed to be located) are already very high.

D3.2B Saltmarsh and foreshore in the eastern half of Copperas Bay (TM 214 318)

I) Baseline situation

This complex mosaic of saltmarsh, intertidal mud and creeks is among the most important SPA/ Ramsar habitat in the Stour and Orwell estuaries. Part of its value arises from the extent and diversity of habitat, and part from the very low levels of human disturbance. Birds displaced from smaller roost sites, such as nearby Stone Point, will often end up here.

In this part of the stretch generally there is a moderate level of recreational activity. This is due to the proximity of holiday homes/ huts at Balhaven (2.5 km to the west), the nearby villages of Wrabness and Ramsey, and the general 'pull' exerted by the attractive woodlands and shoreline. The presence of car parking in nearby Stour Wood, and footpaths (statutory and permissive) within Stour Wood and linking with Copperas Wood, enhance recreational use of the area, attractive circular walks being achievable using existing footpaths.

However, levels of activity along the shoreline in the eastern half of Copperas Bay specifically, are low. This is due to the close proximity of the Manningtree to Harwich Branch line to the south, the absence of an access route from the east (due to the railway and Haltermann Carless refinery), and the presence of Copperas Wood Nature Reserve to the west. The only access route for the general public is via the northern half of Copperas Wood, which is managed by the RSPB (the southern half, which has no shoreline frontage, being managed by Essex Wildlife Trust).

Shore-based activities currently have minimal impact on waterbirds because:

- The RSPB prohibit dogs from their part of Copperas Wood.
- Most visitors to the more sensitive eastern end of the wood tend to use the viewing hides, rather than wander along the shoreline.

35 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

The low level of human activity is largely screened from the saltmarsh and foreshore by trees and shrubs.

II) Detailed design features of the access proposal

We propose that a new field-edge path is created to take walkers from Ray Lane (TM 220 315), to Copperas Wood. It passes south of the wood for around 500m before turning into it at TM 205 316. From here it follows a track and meandering existing walked routes through Copperas Wood, until it meets the Essex Way just inside the western end of the wood. Up to this point the proposed route within this length constitutes a new right of access, but from here westwards it follows the alignment of the existing Essex Way.

Where new access is established, localised ground levelling and small scale establishment works may be required. From the point where the trail enters the wood, to the end of Stone Lane (to the west), path improvements will be limited to footbridge repairs and the removal of two kissing gates. At appropriate points throughout this length of trail new fingerposts and way markers will be installed.

We propose that people with dogs be excluded from the margin at Copperas Wood, seaward of route sections HSG-1-S044 to HSG-2-S010 and north of the railway line, to protect waterbirds on the adjacent saltmarsh and foreshore from disturbance by dogs (see maps HSG 1d – 2b, reports HSG 1 and HSG 2). This will reinforce existing management by the RSPB.

It is proposed that all intertidal mud and saltmarsh in this area be excluded from new access provision under section 25A.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

If approved, the proposed length of new route linking Ray Lane with the Essex Way at the western end of Copperas Wood, would be an important link in the England Coast Path because it would mean that walkers attempting to broadly follow the shoreline would no longer have to divert a considerable distance inland to stick to existing PRoW, or to use the B1352, which is hazardous for walkers. It would also provide a link in what would be a new, attractive circular walk for residents of Ramsey and Wrabness. As there is currently no through-access on this part of the route (only access to the woods by permission of EWT), a large increase in activity levels should clearly be expected on the trail itself. Some people using this new link may also wish to explore the wood between the trail and the railway line, which falls within the margin.

We expect there to be only a small increase in use where the trail is aligned along the Essex Way (to the west of the site), as this is existing PRoW and already promoted as a long distance path by Essex County Council.

Overall, there is expected to be a negligible change in use of the coastal margin, except for within the southern part of Copperas Wood, where a small increase may occur. We anticipate any increase in recreational use of the margin to the north of the railway line, where the environmental impact would be greatest, to be limited by these factors:

- The only access to this land would be via the extreme western end of Copperas Wood, as is the case currently.
- For anyone following the new national trail, gaining access to Copperas Wood north of the railway would constitute a significant diversion from onward progress, because there is only one route into and out of the site.
- The access point is 100m or so beyond the western limit of the length of new access, in other words it is not part of the potential new circular walk or directly linked to it.

36 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

It is likely that a large proportion of regular users of the new length of path will be dog walkers, who will be denied access to Copperas Wood north of the railway, as they are at present.

Most environmental risk in this area arises from the establishment of access rights to the margin, rather than from the trail itself, so the same would apply whether the trail were located on the proposed alignment, or further inland. Because the trail must be aligned to the south of the railway within Copperas Wood (there being no through-route possible to the north of the railway), its direct impact is limited to relatively disturbance-tolerant woodland habitats which already experience a moderate level of access.

As Copperas Wood provides high levels of screening of shoreline activity, the main threat is posed by dogs allowed to run onto the foreshore/ saltmarsh. As noted above, the RSPB already denies access to dogs and we propose to apply a restriction to prevent access by people with dogs. This would be supported by signage, and we recommend in report HSG 2 that the opportunity be taken to rationalise existing signage so that the range of signs are reduced, the underlying messages to path users made clearer and the visual impact reduced.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and mudflat in the area.
- The local restriction excluding access by people with dogs to the part of Copperas Wood adjacent to the shoreline.

D3.2C Saltmarsh to east of Stone Point (TM 180 324)

I) Baseline situation

This small triangle of saltmarsh is used as a roost site, albeit by relatively small numbers of redshank, dunlin, grey plover, curlew, ringed plover and turnstone. Dark-bellied brent geese gather around the edge of the saltmarsh, or roost on the open water when the tide is higher, as will shelduck, while ringed plovers favour a shingle bank on the northern, outer edge of the saltmarsh. Most of these species have a tendency to move on from here to a larger roost site further east within Copperas Bay if disturbed (pers. comm. Nowers, M), but a relatively high level of tolerance of disturbance is often exhibited, possibly due to the presence of creeks within the saltmarsh and a wide channel separating it from the seawall, which may makes the birds feel safer.

As noted above, re Copperas Wood, there is already a moderate level of recreational activity throughout this part of the stretch. The reasons are given above (see D3.2B), but in this particular location recreational activity is high, due to the presence of 80 or so holiday homes/ huts at the Balhaven landholding, many of which are immediately adjacent to this saltmarsh. A large number of boats are also moored here, or are pulled up onto the shore nearby. The threat of disturbance of birds on/ near the saltmarsh is probably greatest from people moving along the shingle bank on the northern edge of the saltmarsh, which is contiguous with the beach that runs in front of the huts.

The Essex Way long distance path, currently the main east-west access route for walkers on the Essex side of the Stour estuary, is on or behind the seawall adjacent to this site. There are some huts between the Essex Way and the saltmarsh. From this point the Essex Way turns away from the shore to go south along Stone Lane (one of the two Balhaven access tracks) and then west.

The intertidal mud to the immediate east of the saltmarsh is particularly unwelcoming for access by dogs and people, being of variable depth. This helps to ensure the saltmarsh is not used as a through-route.

37 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

Although the Essex Way is very close to the saltmarsh, and activity on it will sometimes disturb waterbirds, the impact appears to be reduced by the birds' awareness of the wide, almost continuous wet channel separating the saltmarsh from the footpath.

II) Detailed design features of the access proposal

Our proposals for this part of the England Coast Path are straightforward: we envisage adherence to the current line of the Essex Way throughout, i.e. approaching the site along the seawall from the west, and turning inland along Stone Lane, at TM 172 323. There will be a need for waymarkers and/or fingerposts, but no major works or new sections of path.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

We expect there to be a small increase in use of the Essex Way following national trail designation, but this is unlikely to be noticeable in the context of current levels of access and the impact is likely to be moderated by the factors mentioned above.

Overall, there is expected to be a negligible change in use of the margin, taking into account:

- The high levels of activity in the immediate area.
- The unwelcoming nature of the saltmarsh.
- The hazardous intertidal mud to the east, which discourages access across the saltmarsh from the huts and boats to the west.
- The application of section 25A access exclusion to all of the saltmarsh and a high proportion of the adjacent intertidal mud.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and the majority of mudflat in the area.

D3.2D Saltmarsh and foreshore near Wrabness Nature Reserve (TM 162 317)

I) Baseline situation

This site is a complex one, with fragments of saltmarsh and intertidal mud abutting an irregular shoreline defined by:

- Cliffs and beach to the north-east;
- A seawall protecting low-lying grazing marshes to the south-east;
- Wrabness Nature Reserve to the south.

Waterbirds using the site are subject to substantial disturbance pressures from the following sources:

The beach and cliffs to the north-east are populated by the huts/ holiday homes of the Balhaven site. This is an area of intense recreational activity throughout much of the year, with hut residents being supplemented by informal access by residents of local villages, both to the beach and the strips of cliff-top land behind the huts.

- There used to be a PRoW running north-south, adjacent to The Coign (a private house with a garden which bisects Balhaven land at TM 172 323). It provided access to the beach, but was closed some years ago due to slippage of the cliff face. It is unlikely to be re-opened, due to the prohibitive cost and the scale of the engineering involved. Public rights of access through this area are now limited to the Essex Way, which brings walkers from east and west to the shore at this key site.
- There is some parking at the end of Wall Lane, which converges with the Essex Way at this point, and numerous parking spaces within nearby Wrabness Nature Reserve, both being well used by local people and visitors from further afield, e.g. for dog walking and bird watching. Most regular visitors park at one of these two locations and walk a relatively short distance along the shoreline, often with dogs, but some walk between Wall Lane and Shore Lane, Bradfield, which is further along the shore to the west and linked by the Essex Way.

There are two aspects to the value of this key site:

- Despite severe erosion of the saltmarsh, it remains in use as a roost site. Dark-bellied brent geese and wigeon gather around the edge of the saltmarsh on rising tides, which waders such as redshank and black-tailed godwit will also do initially, although they tend to leave the roost rather than be forced onto higher areas of saltmarsh/ closer to the seawall as levels continue to rise. On high spring tides the entire marsh will be submerged and birds will move up or down river to more favourable sites.
- When the tide is low, the area around the freshwater creek, Sluice Rill, becomes an important feeding area for a range of bird species.

Although the birds are not always disturbed by walkers and dogs on the seawall, they are easily put up by dogs off leads (a common occurrence), especially if they are forced relatively close to the seawall by the tide.

II) Detailed design features of the access proposal

We propose that the trail adheres to the Essex Way throughout this area. The Essex Way approaches the shore from the east via an inland length of PRoW, and continues onto the relatively high seawall at the confluence with the end of Wall Lane and follows the seawall for 160m. It then passes westwards through Wrabness Nature Reserve. Within the reserve it remains a little way inland of the shore, ultimately re-joining the shore at the western end of the reserve as it passes onto Ragmarsh Farm land, at TM 158 316.

We propose:

- The erection of a number of waymarkers/ fingerposts and an interpretation panel.
- Localised in-filling of a small low-lying area on the part of the Essex Way which is bridleway, in the extreme north-east of the reserve, just inside the seawall. This area regularly fills with rainwater, making it difficult for walkers to pass.
- The installation of a pair of signs explaining the importance of not allowing dogs on the foreshore between Wrabness beach and Wrabness Nature Reserve.

We considered aligning the trail along the low cliff top through Wrabness Nature Reserve, rather than sticking to the slightly inland route currently used by the Essex Way. This would have provided walkers with excellent views and close proximity to the water's edge, which would have been particularly valued by those approaching from the east, via 1.8km of inland trail alignment. However, we decided the most important consideration was to minimise the potential for increasing the already high level of disturbance of waterbirds. By adhering to the Essex Way we:

- Exploit the thick shrub cover between the trail and the shoreline to screen human activity from the foreshore.
- Ensure Essex Wildlife Trust has the option to take measures to prevent the shoreline becoming further exploited as a through route, and to discourage walkers from allowing dogs off leads, activity which is already having an adverse impact on birds' use of the foreshore and saltmarsh.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

The only catalyst for increased activity within this area is the upgrading of the route of the Essex Way to national trail status, which may lead to a small increase in activity when compared to its current status as a regional path.

The factors that should minimise any adverse effects that might otherwise have arisen are:

- Access to all of the local intertidal mud and saltmarsh are proposed to be excluded under section 25A, for safety reasons.
- No sections of new shoreline route are proposed.
- Adherence to the (slightly inland) alignment of the Essex Way through Wrabness Nature Reserve will ensure that:
 - Walkers are screened from the shoreline.
 - EWT retains the option to manage access to the shoreline to reduce the current levels of disturbance, should it wish to do so. Although the area between the trail and the water's edge is likely to remain accessible within the coastal margin, measures could be taken by EWT to prevent/ discourage dog walking along or close to the shoreline.
- The installation of signs discouraging walkers from allowing dogs off leads.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by the above factors.

D3.2E Saltmarsh at Ragmarsh Farm (TM 150 315)

I) Baseline situation

This is a 500m wide half-circle of saltmarsh which projects 150m into the estuary. It is used by a range of SPA bird species as a roost site, although its value is constrained by moderate levels of recreational access to adjacent areas.

There is a bridleway and a popular public footpath which run the full width of the site, to its immediate south. The beach to the immediate west of the site is also popular, there being a long history of informal car parking at the end of the adjacent Shore Lane, initially on the beach itself and more recently within the adjacent field, in an area set aside by the landowner. At low tide the shore between Shore Lane and the saltmarsh is firm under foot and may encourage dogs off leads to run onto the exposed mud flats and disturb feeding birds. The majority of visitors are local and visit regularly/ frequently, often with dogs that are allowed to run free.

The mudflats to the north-east of the saltmarsh are particularly important for feeding knot, which occur here in numbers of 3-4,000 or more (i.e. potentially two-thirds of the SPA total) (pers. comm. Nowers, M), and which would be at risk of disturbance if access rights to the saltmarsh were established.

II) Detailed design features of the access proposal

We propose that the trail follows the existing PRoW to the south of the saltmarsh. This footpath is located on an arable field edge and is separated from the saltmarsh by a low seawall. Approaching from the east, the footpath is also initially part of the promoted Essex Way, but half way past the saltmarsh (at TM 151 315) the Essex Way turns directly inland, leaving the field edge footpath to continue to the west. As it nears the western limit of the adjacent saltmarsh the footpath crosses over the seawall to continue on the beach towards Shore Lane.

Although we are proposing to exclude access to the saltmarsh and mudiflat under section 25A throughout this area, there would remain an accessible ribbon of beach and foreshore to the west and extending half way around the saltmarsh. Section 25A may not be applied to beaches, and the strip of foreshore that the beach transitions into at its eastern limit is firm underfoot and therefore not appropriate to be covered by section 25A.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

The existing levels of recreational access to this area are moderate, with a commensurate level of disturbance potential, particularly by dogs off leads. This is due to the presence of Shore Lane, parking and beach to the west, and the Essex Way to the east and south.

Our proposals are expected to lead to a small increase in recreational activity at most, relative to current levels. The only significant change we envisage is the establishment of an optional alternative route on the field edge to the immediate south of the existing beach route to the west, for use when the beach is inundated by particularly high tides. However, this is to formalise *de facto* activity that already takes place and is not expected to introduce new types or levels of activity.

We are satisfied that it would be appropriate for this saltmarsh to have access excluded under section 25A, but also recognise that it is slightly less hazardous to access than most others on the estuary. There is limited evidence that a small amount of access already takes place, so we propose to underline the absence of coastal access rights and the risks to wildlife by installing a pair of discrete signs; one east and one west of the site.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to saltmarsh and the majority of mudflat in the area.
- Installation of a pair of signs advising of the absence of coastal access rights and of the risks to wildlife.

D3.2F Hogmarsh (north of Lawford) and associated field/ intertidal reversion to the northwest (TM 104 324 and TM 102 327)

I) Baseline situation

Hogmarsh is a long, irregular area of saltmarsh that divides the extreme upper reach of the Stour estuary into two channels. It therefore has tidal water/ intertidal mud on all sides apart from on its north-west boundary, which is defined by the London to Norwich railway embankment.

To the immediate north-west of the railway is what was, until 2017, a rectangular field managed as a hay meadow. At the time of writing this is reverting to inter-tidal habitat. It was protected from tidal inundation by seawalls on its north-eastern and south-western sides, which tie into the railway embankment and A137 roads embankment to the south-east and north-west respectively. However, breaches have been allowed to develop in the seawalls over recent years and the low-lying field is now inundated by seawater on every tide and is becoming a valuable feeding area for waterbirds, despite the presence of multiple overhead power lines.

The land to both north and south of these sites is urban/ industrial. There is fairly intense human activity on the south (Essex) side, where there is public access to the seawall which extends from the edge of Manningtree town centre, north-eastwards to the A137. The crest of the seawall is maintained for public access to a higher standard than any other within the stretch and is well used, having excellent views along the length of the estuary as far as the cranes of Felixstowe Port. Much of it is a PRoW, but the 400m closest to the town centre is not, despite being maintained to a similarly high standard and furnished with seats and an interpretation board.

The Suffolk bank is dominated by the industrial area at Brantham (a large part of which is due to be redeveloped as railway sidings) and a nearby area of grass and arable land which is to be developed as residential housing and associated green space. All these areas are separated from the shoreline (and therefore Hogmarsh) by a large railway embankment, although there is a peninsular of disused industrial land to the south of railway, where there is no public access. This is the part of the Suffolk bank that is closest to Hogmarsh.

Despite the activity to both north and south, Hogmarsh is isolated by enough water/ intertidal mud that birds roosting or foraging within or near the site are not normally affected by activity on either bank. As a result, Hogmarsh has become established as one of the most important roost sites in the Stour and Orwell estuaries. Large numbers of birds are also seen exploiting feeding areas that are newly-exposed on a falling tide or last to be covered by a rising tide.

From early August to mid-late April Hogmarsh supports significant assemblages of a wide range of waterbirds including internationally important numbers of black-tailed godwit and knot. Bird populations here are dynamic; depending on the state of the tide, wind direction and time of year, birds move between Hogmarsh and nearby Factory and Stutton Mill roosts to the east (0.7 and 2.5km respectively) (pers. comm. Nowers, M).

II) Detailed design features of the access proposal

It is proposed that the trail follows the seawall along the Essex bank, crosses the estuary on the A137, and passes over the Environment Agency's sluice at Cattawade on the Suffolk side (TM 102 330). From here it remains inland for some distance, adhering to Factory Road before heading to the north-east and crossing the railway line via the footbridge. It ultimately returns to the shoreline some 1.7km from Hogmarsh.

We propose that throughout most of the approximately 1km of seawall that extends from Manningtree town centre to the A137, the edge of the landward margin be defined as the seaward edge of the adjacent borrowdyke, resulting in the adjacent folding being legally accessible, as well as the seawall itself. However, this will not affect Hogmarsh because the area in question is behind the seawall and invisible from the marsh.

Elsewhere, access rights to the margin will be very limited, given the extent of excepted land and the close proximity of intertidal muds and saltmarsh, all of which are proposed for access exclusion under section 25A.

Overall, there is expected to be a negligible increase in recreational activity along the route of the path, not likely to be noticeable in the context of already high levels of use. The factors that may combine with national trail designation to bring about this increase are:

- The close proximity of public transport links, notably the Manningtree railway station; a stop for fast trains from London and Norwich and the start of the branch line to Harwich International Port.
- The proximity of Manningtree town, currently a modest tourist destination.
- The proximity of the Dedham Vale AONB and Suffolk Coast and Heaths AONB.
- Increased use of the seawall to the north-east of Manningtree town centre by those with limited mobility, facilitated by our proposed improvements to the seawall access ramp.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

We propose no new sections of path within this area and, as stated above, adherence to existing public roads, footpaths and other existing walked routes. As existing levels of activity do not appear to adversely affect waterbirds using Hogmarsh, and coastal access rights are likely to bring about a negligible increase in activity compared to current levels, we do not anticipate any negative impacts arising from the trail itself.

The risk of increased disturbance from new access to the coastal margin should also be very low, taking into account the extremely small physically accessible areas to seaward of the proposed trail and our proposal that access rights be excluded from all saltmarsh and mudflat in this area, under section 25A. However, one anomaly is discussed below:

In recent times the only access route to Hogmarsh, other than by boat, has been along the seawalls to either side of the rectangular field to the north-west of the saltmarsh. Technically, these seawalls will fall within the coastal margin under our proposals, and therefore be accessible. However, the increased pace of reversion to intertidal habitat within the field, and the associated deterioration of the seawalls, will (if left unchecked) prevent access via these routes and therefore reduce disturbance of birds on Hogmarsh and the area generally.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and mudflat in the area, including the intertidal reversion in the field to the north-west.

D3.2G Factory Marsh, south of Brantham (TM 112 328)

I) Baseline situation

Despite the close proximity of built development to the north of Factory Marsh and the footpath on the neighbouring seawall, levels of disturbance are generally low and this saltmarsh remains an important roost site for a wide range of SPA waterbirds. As noted above, many of these birds regularly move between Hogmarsh (to the south-west), and Stutton Mill Marsh (to the east).

The London to Norwich railway embankment provides a visual barrier between Factory Marsh and the industrial and residential areas to the north. The most important potential source of disturbance is the footpath on the seawall to the north-east. For the most part, though, the footpath does not have a significant impact because it is separated from the roost site by a wide creek which affords some protection to the

birds. The greatest threat is from dogs off leads, but they can only gain access to the marsh via a narrow neck of land immediately adjacent to the railway embankment.

The Stour and Orwell Walk passes some distance to the north of Factory Marsh, being 300m away at its closest point and hidden by the railway embankment. Some walkers travel from nearby parts of Suffolk and Essex to walk in the area, but by far the majority are local residents who use part of the Stour and Orwell Walk and the footpath on the seawall as components of their regular circular walks, often with dogs.

Network Rail have announced their intention to close the 'at grade' crossing that the seawall footpath uses to cross the railway next to Factory Marsh (at TM 111 330). This will inevitably have the effect of reducing the numbers of walkers and dogs passing close to the site, whether or not the footpath stays open, because there will no longer be a through route.

Another important consideration is that a large area of land to the north-west of the railway embankment has planning permission for a mixed use development including approximately 320 homes. It is anticipated that this development will increase recreational pressure on local nature conservation sites and a package of mitigation and compensatory measure have been agreed between the developers, planning authority and environmental organisations.

II) Detailed design features of the access proposal

We propose that the trail follows the alignment of the Stour and Orwell Walk throughout this area.

A large proportion of the land between the proposed alignment and Factory Marsh is currently under arable cultivation, and therefore excepted from coastal access rights to the coastal margin, but the seawall and small areas of grassland and wetland would, technically, be accessible areas within the margin. Of these areas, most would be physically difficult/ unappealing to access, but the seawall, which is dry and close-mown for flood defence reasons, would continue to provide an access route close to Factory Marsh.

To compensate for the severance of the public footpath caused by the closure of the rail crossing, Network Rail has proposed a new link in the footpath network along the south-eastern side of the railway embankment. This would link the footbridge currently used by the Stour and Orwell Walk with the footpath on the seawall, joining it about 130m from Factory Marsh (at TM 113 330). This would maintain access to the seawall close to its western end (albeit a little way short of Hogmarsh) and facilitate a new circular walk, all of which would be within the coastal margin.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

Despite the proposed trail route being an attractive one, with panoramic views of the estuary and of Manningtree and Mistley on the far bank, it is anticipated that there will be, at most, a small increase in recreational activity as a result of our proposals. This is because:

- We are not proposing to depart from the existing Stour and Orwell Walk, or to create any new sections of path.
- The upgrading to national trail status is not expected to make a substantial difference to activity levels, which are already moderate and likely to increase due to an imminent increase in local housing stock. The absence of any major tourist 'hotspots' along the Stour estuary tends to suppress visitor numbers, although the presence of a main line station at Manningtree, and the close proximity of two Areas of Outstanding Natural Beauty, do enhance the appeal of the wider area. Currently, despite these factors, the great majority of path users are relatively local. This is not expected to change significantly following national trail designation.

We believe the trail will not lead to increased levels of access to the seawall close to the site over current levels, which we expect to drop considerably when the rail crossing is closed. At the time of writing it is unclear whether this length of seawall would lose its footpath status with closure of the crossing. Even if footpath status were to be lost it is likely that the seawall would remain an accessible part of the coastal margin and some walkers, especially bird-watchers, may wish to utilise if, despite it becoming a 'dead end'. However, consideration of this is largely academic because even current levels of access do not appear to present a substantive threat to the roost site, except for the risk of dogs occasionally entering the site from the narrow neck of land next to the embankment. It is our understanding that monitoring is to be carried out as part of the mitigation for the nearby housing development, and that if disturbance of waterbirds is found to result from people or dogs attempting to gain access to Factory Marsh via this route, a fence will be erected to prevent access. However, this mitigation was agreed before it became clear that the railway crossing would close, which would make the need for it much less likely.

Conclusion: It is difficult to assess future potential for disturbance of SPA waterbirds at Factory Marsh, but this difficulty results primarily from uncertainty surrounding the effects of the imminent expansion of local housing stock and closure of the adjacent rail crossing, rather than from new coastal access rights. There are several elements to our assessment:

- It is clear that recreational pressures in the general area are likely to increase noticeably as a result of the increase in local housing provision, but there is already an agreement in place that monitoring will be carried out and mitigation measures put in place if necessary. We understand that one such measure is the installation of fencing to prevent access by people and dogs via the small neck of land adjacent to the railway embankment.
- When the railway crossing closes the absence of a through-route will inevitably reduce the appeal of the seawall next to Factory Marsh for most walkers. We believe that only a relatively small proportion of walkers will choose to walk to the railway embankment and back again.
- Users of the England Coast Path would need to depart from the trail at one of two points, each about one kilometre away, in order to use the relevant length of seawall and the numbers doing so are expected to be negligible to small compared with background levels of activity. Again, because of the length of the diversion from the trail, it is likely that the majority of walkers doing so would be seeking to view Factory Marsh's birdlife. They would, therefore, be less likely to allow uncontrolled dog access via the single, narrow access route at the extreme end of the seawall.
- The establishment of new access rights to the coastal margin would become more important in this location should the length of 'dead-end' footpath on the seawall adjacent to Factory Marsh be closed as consequence of the rail crossing closure. In this situation, the public would retain the right to access the seawall by dint of it being accessible land within the coastal margin. In practical terms, though, the above factors would still apply and the number of path users, and the risk of disturbance from dogs off leads, would be expected to be low.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and mudflat in the area.

D3.2H Saltmarsh at Stutton Mill (TM 131 329)

I) Baseline situation

This is one of the three key roost sites at the western end of the estuary, with a range of SPA waterbirds often moving between here, Factory Marsh and Hogmarsh, both further to the west. It is especially important for curlew, black-tailed godwit, dunlin and knot. The site is fairly remote, being approximately 2km from the settlements of Stutton and Brantham. As such, background levels of recreation access are low, but any walkers who do access the area do so via the seawall footpath that is immediately adjacent to the site's north and east sides, or via the bridleway from the north which converges with the seawall footpath at Stutton Mill.

Although there is less activity on these footpaths than on the shoreline footpaths to the immediate east and west, they are still used relatively frequently by walkers, who are in clear view of the saltmarsh, the seawall being relatively high. Despite this, levels of disturbance are generally low, due to:

- The birds tending to congregate on the outer edge of the saltmarsh.
- The saltmarsh being fragmented by a number of creeks and separated from the seawall by a particularly wide channel which probably makes them feel more secure.

II) Detailed design features of the access proposal

We proposed that the trail adheres to the seawall footpath throughout this area.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals, for the following reasons:

- It is difficult to gain access to this saltmarsh, despite proximity of the public footpath.
- We propose that all saltmarsh and mudflat in this area be covered by the section 25A exclusion on grounds of safety.
- Saltmarsh and mudflat make up the entire coastal margin in this area; there are no other areas to be explored by anyone seeking to leave the footpath.
- The area is relatively remote, the seawall relatively high and exposed to the prevailing southwesterly winds. For these reasons walkers tend to pass through the area relatively quickly, or very occasionally to picnic on the seawall.
- Waterbirds in this location do not appear to be readily disturbed by walkers on the seawall. Our proposals are only likely to lead to a small increase in activity and will not facilitate any changes to the types of activity that take place.

The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and mudflat in the area.

D3.2I Saltmarshes between Markwell's Farm and Lower Holbrook (TM 164 342 to TM 175 345)

I) Baseline situation

This is a complex of saltmarshes to either side of Holbrook Creek, made up of:

- A long established triangle of saltmarsh close to Markwell's Farm, Stutton.
- Two adjacent areas of saltmarsh which are becoming established behind lengths of historic seawall near the Royal Hospital School. These seawalls have been allowed to degrade since the building of a larger, more effective seawall approximately 100m to landward.
- A smaller, slightly drier triangle of saltmarsh on the opposite (eastern) side of Holbrook Creek, at Alton Wharf.

From the west, the Stour and Orwell Walk approaches the area on an inland alignment via Stutton village, follows the shoreline behind most of the areas of saltmarsh for 1.4 km, then is located slightly inland again having crossed Holbrook Creek and heading east from Alton Wharf. There is a PRoW which diverges from the Stour and Orwell Walk and runs along the field edge immediately to landward of the remaining saltmarsh at Alton Wharf, behind a short length of degraded seawall.

There are three noteworthy elements to the Stour and Orwell Walk in this area:

- To the west of the saltmarshes it is located inland of the estates of the neighbouring Crowe Hall and Stutton House. There are no shoreline PRoW through the grounds of these properties, which means there is a 1.8 km gap in shoreline access spanning between Graham's Wharf (TM 152 333) and Markwell's Farm (TM 166 344); the largest gap in existing shoreline access on the Suffolk bank of the Stour estuary.
- It includes approximately 130m of permissive path in the grounds of Markwell's Farm.
- The current seawall has no formal PRoW along the majority of it, despite being very popular with walkers. Instead, the PRoW follows the meandering course of the historic, degraded seawall (located up to 150m to seaward), and is therefore impassable.

The Stour and Orwell Walk in this area forms part of a local network of appealing footpaths and lanes linking the attractive villages of Stutton, Harkstead, Holbrook and Lower Holbrook. The area is something of a local visitor destination, as it includes the long, curved beach in the eastern half of Holbrook Bay and also Holbrook Creek/ Alton Wharf, where boats are moored.

II) Detailed design features of the access proposal

We propose that the trail adheres to the existing routes throughout this area, i.e. the Stour and Orwell Walk to the west of Holbrook Creek and the field-edge PRoW to the east of the creek.

After detailed research and careful deliberation we decided against proposing the existing gap in access be bridged by alignment of the trail along cliff top/ field edge between Graham's Wharf and Markwell's Farm, despite the clear advantage to walkers. There are a range of reasons for this, and they are explored fully in the stretch report; two of them relate to the sensitivity of local birdlife:

It would have been necessary to limit access to a shoreline route to five-and-a-half months of each year to avoid disturbing waterbirds forced to feed close to the shore either side of high tide, during periods of passage and overwintering. This argument is less compelling throughout much of the estuary, where there are already existing shoreline rights of access that will remain unaffected by coastal access rights, but we recognise the importance of retaining some undisturbed foraging areas that waterbirds may exploit when constrained by relatively high water levels. This may benefit birds displaced from any part of the estuary as they are pushed closer to the shore by incoming tides, or which need to start feeding as soon as possible after high tide. The ability to exploit mud close to the shore is likely to be particularly important for birds using the adjacent Markwell's Farm roost, which are known to feed in this area.

We wished to avoid proposing a route close to the north-west side of the saltmarsh at Markwell's Farm because of its sensitivity for roosting birds over the same period. They are particularly vulnerable to disturbance by people and dogs here (where there is currently no right of access), because there is no clear watery 'barrier' between the saltmarsh and the field edge, and the deteriorating seawall is ill-defined. The sensitivity of this area is increased by the presence of large number of curlew which often congregate in the adjacent arable field (pers. comm. Nowers, M). The latter is explored fully in D3.2O.

The owners of Markwell's Farm have generously offered to dedicate a strip of land for coastal access close to the line of the existing permissive path within their garden (part of the existing route of the Stour and Orwell Walk).

We propose that almost all areas of saltmarsh and mudflat in this area are excluded from new access provision under section 25A, as they are deemed unsuitable for access. However, the popular beach immediately to the east of the saltmarsh at Alton Wharf will fall within spreading room, and we have also identified a narrow ribbon of foreshore alongside the beach that will also be accessible because we believe it is safe enough to not be covered by the section 25A exclusion. The western tip of this ribbon extends about 100m to the west of the beach and is seaward of the saltmarsh at this point (see map F3).

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

To properly assess the potential impacts of our proposals on this complex of saltmarshes it is helpful to split the proposed trail route into three segments:

- From Graham's Wharf to Markwell's Farm. By far the most sensitive area here is the large triangle of saltmarsh to the south of Markwell's Farm, for four reasons:
 - It is a valuable roost site for a wide range of protected bird species.
 - The adjoining arable field is also exploited by waterbirds.
 - There is little in the way of natural protection, e.g. a dividing creek, between the saltmarsh and dry land.
 - There is currently no right of access; one of very few substantial areas in the whole estuary where this applies.

For this area we propose the trail adheres to the existing Stour and Orwell walk, which is a considerable distance inland, so it will have no effect on the saltmarsh, or on the birds feeding on mudflats, regardless of the state of the tide.

The effects of spreading room should be negligible, taking into account:

- The section 25A exclusion to all saltmarsh and mudflat.
- The presence of excepted land at the eastern end of this segment of trail (arable land and private gardens).
- From Markwell's Farm to Wall Farm Wharf. Again, we propose adherence to the Stour and Orwell Walk here. This segment of trail initially abuts the saltmarsh to the south of Markwell's Farm, but it is not expected to have any adverse effect on it. This is because the trail is to be located on the seawall on the north-east side of the marsh. This route is already in moderately heavy use by walkers and, although the seawall crest is relatively high, it is separated from the saltmarsh by a creek which appears to make the birds feel more secure. The increase in use of the trail as a result of coast path status is expected to be small compared to the moderate level of existing activity.

48 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

Going eastwards within this segment the route sticks to the seawall/ Stour and Orwell Walk. There is a little more scope for disturbance of birds on the areas of establishing saltmarsh here, but again it is difficult for humans or dogs to gain access to them and existing levels of seawall access are moderately high compared with the small increase anticipated to result from national trail designation.

Again, the effects of spreading room should be negligible, taking into account:

- The application of the section 25A exclusion to all saltmarsh and mudflat.
- The absence of any land to seaward of the seawall that would not be covered by section 25A.
- The unappealing nature of both saltmarsh and mudflats for access.
- From Wall Farm Wharf eastwards. Birds using the small triangle of saltmarsh near Alton Wharf are more vulnerable to disturbance because existing levels of human and canine activity are high and the saltmarsh is smaller and generally easier to gain access to. Potential access routes are via Alton Wharf, Holbrook beach, or the field-edge footpath, and there is also some boating activity close at hand. However, the saltmarsh is far from inviting for access, and any increase in use of the footpath resulting from national trail designation is expected to be negligible compared with existing levels of access.

As described above, the beach to the east of the saltmarsh, together with an adjacent ribbon of intertidal land will remain within spreading room, but the saltmarsh itself and the majority of the adjacent mudflat will be covered by the proposed section 25A exclusion. Although, technically, the establishment of spreading room access rights to the beach and adjacent foreshore would bring people and dogs close to the saltmarsh, we think this should have a negligible impact in the context of relatively high existing visitor numbers and the fact that birds tend to colonise the saltmarsh as the tide rises, at which point it will also cover the accessible area adjacent to the beach. Also, on all but neap tides, the beach itself at this western end is largely covered by higher tides.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to saltmarsh and the great majority of mudflat.

D3.2J Headland to south of Nether Hall, Harkstead (TM 192 334)

I) Baseline situation

Adjacent to this south-facing headland is a narrow strip of mixed habitats including higher saltmarsh, shingle/ shell banks and a muddy creek. Its small size means it is not one of the most important roost sites on the estuary, but nonetheless its remote position and relative inaccessibility mean it is often populated by significant numbers of waterbirds, particularly oystercatchers, but also including some SPA species.

Just to the west of the headland is the attractive, crescent shaped beach in the eastern half of Holbrook Bay. This is popular among local residents and also attracts fairly significant numbers of visitors from elsewhere in south-east Suffolk. Apart from those who come to explore the beach, many come to enjoy a circular walk taking in the local villages, often accompanied by dogs. Only a small proportion of these walk eastwards of Holbrook Bay, though, for reasons set out below.

There is a PRoW which used to be located on cliff top through Nether Hall land behind the beach in the east of the bay. It -is now in an undefined location on the beach or foreshore, having been undermined by

49 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

coastal erosion. In legal terms, at least, this footpath continues eastwards from the beach and passes through the complex of habitats to the south of the headland, before climbing the cliff face and re-joining higher ground to the east. However its location is difficult to determine on the ground and passage through the site is always difficult and is impossible at certain states of the tide.

Walkers frequently stray onto the existing low cliff top/ field edges on Nether Hall land behind the beach, where there is no formal right of access. This is because of tidal inundation of the narrow beach and the difficulty of walking around to the south of headland.

Generally, use of the clifftop segments of route close to the east and west of the site is regular but light, and by walkers who are relatively local, despite the extensive and attractive estuary views. It is likely that some walkers are discouraged from walking this route by awareness that they lack the legal right to do so. It is not entirely clear how those that do walk through the area find their way through/ around the sensitive habitats adjacent to the headland, it being likely that many follow the route we propose (see below).

Background levels of recreational activity can be relatively high just 1-2km to the west, on and near the beach, but activity decreases towards the headland as the beach feels progressively more remote.

II) Detailed design features of the access proposal

In this area we propose that the trail be aligned along the seaward boundaries of arable fields belonging to Nether Hall and the neighbouring Ness Farm. This means that as the trail approaches the site from the west it will be on the low cliff top until it reaches the site, at which point it will turn to the north onto the track that leads to Nether Hall. After approximately 160m it will turn away from the track and follow the edge of the adjacent field, heading south and then east, remaining on field edge for over I km before picking up the seawall near Johnny All Alone Creek.

There are four implications of this access proposal:

- Where the existing PRoW is located on cliff top, on its 'official' alignment, the trail will adhere to it. This applies from TM 192 334 eastwards.
- Throughout the area where the PRoW is ill-defined and now located on beach/ saltmarsh/ foreshore the trail will be on a new alignment on cliff top/ field edge, i.e. to landward of the site and largely screened from it by trees and shrubs.
- By proposing a new route around the eastern side of Holbrook Bay and past the site we close the only gap in legal rights of access along the eastern half of the Suffolk shoreline. At present, a proportion of walkers are probably deterred from walking through/ past the site by the lack of a formal, passable public footpath. Inevitably, opening a new section of path providing easy walking and a legal right of access is likely to encourage more walkers, with and without dogs.
- The value of the local footpath network will be increased by this new section, as it will facilitate an attractive 4.6 km circular walk from Harkstead village.

We propose that the section 25A access exclusion that covers most of the estuary be applied to all the saltmarsh and great majority of the intertidal mudflat in this area. A very small area of shingle/ shell beach in the west of the site will not be covered by this exclusion because it does not qualify. We also propose that a narrow ribbon of intertidal area (mostly mud) alongside the main part of Holbrook Bay beach will not be covered by this accessible ribbon comes to an end as it reaches the site from the west, the mud becoming more hazardous adjacent to the site and heading east.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

General recreational activity in this area is focused on the beach in Holbrook Bay, to the west of the area being considered, and tailing off to much lower levels closer to the site. The shoreline here is a dynamic one, resulting in the site itself, as well as the foreshore to the immediate west, being unappealing and hazardous to access by people or dogs. This general pattern of activity is expected to remain much the same after establishment of the coast path because the beach, together with footpaths linking it with nearby Lower Holbrook and Harkstead, are the main 'draw' factors.

However, it is inevitable that establishing a new legal right of access that bypasses a segment of shoreline PROW route which is difficult/ impossible to follow, will cause the numbers of walkers to increase. We also expect national trail designation to further increase this number, albeit by a small amount, in keeping with similar parts of the stretch.

On the positive side, we have identified a route that not only avoids the sensitive complex of habitats, but largely screens walkers from it. Also, the combination of the application of section 25A and the physical difficulty of accessing the site should discourage access within it. Provision of a well-marked, easily accessible route around the site, providing a much needed east-west link in the exiting PRoW network, should reduce the potential for walkers stumbling into the site searching for a way through, which probably occurs fairly regularly at the moment.

Overall, we expect our proposals to lead to a moderate increase in the numbers of people passing through the area close to the site, but a reduction in the number of those who currently attempt to find a way through it - the most damaging activity.

The proposed route is attractive, but presents a low risk of disturbance of birds using the site because:

- There is effective screening in the most important areas.
- Only a small part of it offers coastal views, or any enticement to linger, and it's well screened where it does.

Natural England has considered the possible risks to qualifying features at this location and concluded that our proposals should have a neutral or positive effect on protected waterbirds, despite a moderate increase in the number of walkers. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and great majority of mudflat.

D3.2K Saltmarshes in Erwarton Bay and at Johnny All Alone Creek (TM 224 338 and TM 207 333)

I) Baseline situation

These two areas of saltmarsh are located towards the eastern end of the Suffolk shore of the Stour estuary. The Erwarton Bay saltmarsh is one of the largest and most important waterbird roost sites in the Stour and Orwell estuaries, and is managed by the RSPB. It can host 1,000 redshank in late August (approx. 40% of those expected to be on autumn passage within the SPA/ Ramsar site), and 2,000 grey plover at certain times (approx. 60% of the SPA/ Ramsar wintering figure). The saltmarsh at Johnny All Alone Creek is considerably smaller but still important; the two are considered together because they are only 600m apart and share these key characteristics:

They are broadly similar in terms of habitat, being fragmented by complex networks of creeks.

51 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

- They are both flanked by seawalls to the north, the same shoreline PRoW being located on both seawalls.
- Both are largely separated from their respective seawalls by creeks.

Both sites have a mix of low-lying grasslands and arable fields to landward. The small settlement of Erwarton is about 1km to the north, Shotley and Shotley Gate are similar distances to the north-east and east respectively, and Harkstead is approximately 2km to the west. None of these are large centres of population and background levels of recreational activity in the vicinity of the saltmarshes is low. The most important land-based recreational resource is the shoreline PRoW which extends throughout the eastern half of the Suffolk shore, its value being enhanced by public footpaths linking it to the settlements inland.

Although Shotley Gate can be fairly busy as a recreational resource, this mainly relates to the marina and sailing club, and to people visiting from the local area to take advantage of the strategic views across the mouths of the Stour and Orwell estuaries and Harwich Harbour. The shoreline PRoW does not attract the numbers of walkers that might be expected of a route in such a strategic location, with links to local villages and with local parking, but it is used regularly and fairly frequently by local walkers and some visitors from nearby parts of Suffolk.

II) Detailed design features of the access proposal

We propose that the trail adheres to the route of the existing PRoW throughout this area. We also propose that the section 25A access exclusion be applied to all local saltmarsh and mudflat in the area.

There is no land to seaward of the trail that is of a type that would not be covered by the section 25A exclusion and therefore be within spreading room.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

As noted above, at present there is regular and fairly frequent use of the shoreline footpath. As with many saltmarshes, waterbirds tend to congregate along the outer edges of the saltmarshes and they benefit from the extra security conferred by the complex networks of creeks between them and the seawalls. Generally, walkers and dogs moving along the seawalls are not deemed to represent a significant threat of disturbance to birds roosting on the saltmarshes.

We anticipate that the designation of national trail status would, at most, lead to a small increase in path users in this location, and that this, combined with the absence of areas of land where people would be inclined to linger and carry out other recreational activities, should mean that adverse effects are avoided.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by:

- The establishment of a well maintained and easily followed trail on the proposed alignment.
- The section 25A exclusion on coastal access rights to all saltmarsh and mudflat in the area.

D3.2L Saltmarsh at The Walls, Mistley (TM 112 320)

Note: This is a small saltmarsh site, and the only appreciable area of saltmarsh to be (just) outside the SPA/ Ramsar boundary, but is included for completeness. It is also the only area of saltmarsh to not be included in our proposed section 25A access exclusion. It is a Local Wildlife Site known as 'Hopping Bridge Marsh'.

I) Baseline situation

This is a narrow, irregular ribbon of saltmarsh parallel to the busy B1352 between Manningtree and Mistley, and separated from it by a pavement and wide, grassed verge. It is the only saltmarsh on the stretch that we feel cannot be covered by section 25A access exclusion because access is relatively feasible and safe. The saltmarsh's shape and proximity to the elevated road verge mean that any hazards are readily apparent or could reasonably be foreseen by anyone wishing to gain access.

The shape and location of this site mean it is of limited value to waterbirds and any that do use it will do so despite the high levels of human and canine activity close by.

II) Detailed design features of the access proposal

We propose that the trail follows the alignment of the roadside pavement throughout this area. This means that as well as the saltmarsh itself being within spreading room, the intervening grassy verge will also be an accessible area within the coastal margin.

The latter is already heavily used by members of the public, who are drawn here by the wide estuary views, to feed the large population of mute swans, and to buy refreshments from roadside vendors.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

Although this saltmarsh site is, theoretically, more accessible than other saltmarshes within the estuary, it is not inviting and existing level of access are low, despite the high background levels of activity. Any areas of more vulnerable pioneer saltmarsh vegetation are likely to be on the outer edges of the saltmarsh and therefore less likely to be adversely affected.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by the establishment of an easily followed trail on the nearby pavement.

D3.2M Fields landward of saltmarshes at Stutton Mill, Royal Hospital School and Erwarton Bay (TM 130 333, TM 170 346 and TM 222 341)

I) Baseline situation

The fields in these three locations are considered together because they are all grasslands, associated with saltmarsh roost sites, and used by SPA bird species in very similar ways. Existing and proposed access arrangements are also very similar in all three cases. Despite being outside the European sites boundary, they must be considered by this assessment because they are functionally linked land in that they help support the waterbird populations.

All three locations are used frequently by wintering waterbird species, especially when space is limited on the nearby saltmarsh roosts. Dark-bellied brent geese make regular use of these fields and are often joined by a range of other species such as redshank, curlew, lapwing and shelduck.

In all three cases the fields are separated from the nearby saltmarshes by seawalls, and all three seawalls have PRoW located on them (or a route used as if it were PRoW, near Royal Hospital School). The fields near the Royal Hospital School have another PRoW immediately to landward (partially screened by shrubs), and playing fields to landward of the footpath. The other two sets of fields have arable fields to landward.

Sensitivity to disturbance varies with species and can also vary with the time of year, some species or individuals appearing to show greater tolerance of people and dogs on the seawall later in the wintering period, possibly partly due to lower energy reserves. Dark-bellied brent geese can show remarkable

53 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

resistance to taking flight in the presence of people and dogs, whether the birds are located on the saltmarsh, nearby fields, or on the water close to the seawall. Even when they are put up they will often circle round and land nearby. They may still be negatively affected by recreational activity, though, as they may be reluctant to feed when disturbed, and even short flights can deplete their energy reserves because taking off is particularly energy-demanding for relatively heavy birds.

II) Detailed design features of the access proposal

In all three locations we propose that the trail adheres to the existing PRoW on the seawalls. Grass fields are not one of the land types that are included within the coastal margin by default when to immediate landward the trail, so these fields would not be part of spreading room.

III) Consideration of possible risks to qualifying features at these locations in light of the access proposal

We expect national trail designation to lead to, at most, a small increase in use of the existing public footpaths.

The fields at the Royal Hospital School and near Erwarton are relatively large, which may enable the birds to position themselves far enough from both the seawalls and perimeter trees (where they may be at risk from raptors). Also, to a large extent, all three seawalls have borrowdykes to their landward sides, i.e. separating them from the fields, and these confer an added sense of security to the birds. At Stutton Mill and Erwarton, birds may also move to fields further to landward, and this also sometimes occurs on the playing fields at the Royal Hospital School.

As noted above, none of the fields will be included within spreading room under our proposals. It might have been counter-productive to propose that the trail be located to landward of the fields to reduce disturbance, because the affected fields would have then fallen within spreading room, as grassland to seaward of the trail is not an excepted land type.

One option we might have considered would have been to establish low-level alternative routes on the foldings, to avoid 'skylining'. However, walkers would have retained the right to walk along the seawall PRoW should they wish to do so, so compliance may have been poor. Also, it could be argued that greater disturbance would be caused by users of any lower level paths suddenly appearing on the seawall (perhaps to take in the view or to watch the birds), than if they used the higher level paths, from which they would be visible from some distance away and would not take the birds unawares.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by the establishment of a well maintained and easily followed trail on the proposed alignment.

D3.2N Field north-east of Mistley Heath (TM 135 311)

I) Baseline situation

This is a steeply sloping, north-east facing arable field between Mistley Heath and Bradfield, on the Essex side of the estuary. It is frequently used by a limited range of wintering waterbird species, notably large numbers of dark-bellied brent geese, despite it being 1.5km from the nearest (relatively small) saltmarsh roost site at Ragmarsh Farm and 2km from the larger Stutton Mill saltmarsh on the opposite bank.

The field is a large one, with the relatively busy B1352 at the foot of the slope on the field's northern boundary, and the promoted Essex Way on its southern boundary, on the brow of the hill. The distance between the part of the field favoured by the geese and the PRoW is about 300m, and the visual link between the two is broken by the brow of the hill.

54 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

This field may be favoured by the birds because the topography makes it feel relatively remote, despite the close proximity of two villages, and it has excellent visual links with the estuary. The birds may also be aware that the most likely source of disturbance is from the PRoW on higher ground to the south, and that should this occur the north-east facing slope would make it easier for them to take off rapidly in the opposite direction.

II) Detailed design features of the access proposal

Most of the proposed trail alignment is almost 1km inland in this general area, broadly following the Essex Way between Bradfield and Mistley. However, on approaching Mistley Heath from the east it turns northwards towards the shore (at TM 130 310), before turning westwards again, towards Mistley. This is an entirely new section of route and the part of it that runs north-south follows 260m of the western boundary of the field used by dark-bellied brent geese.

The distance between the proposed new segment of route and the area favoured by the birds is approximately 400m. As with the existing footpath, the undulating topography means there is no direct line of sight between the birds and the proposed route.

Arable land is excepted in terms of the coastal margin, so this field would not be within spreading room, despite being landward of the trail.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

Flocks of birds in fields generally are vulnerable to disturbance by people and dogs, and dogs off leads present a particularly serious threat if there is no fence, watercourse, or other barrier between them and the birds. In this field there is no such barrier.

However, the birds have been using this field for many years and have chosen to do so despite the presence of the PRoW 300m to the south (there is no footway on the B1352 and it is hazardous for pedestrians, so disturbance of the birds from this source is rare, despite the road being as close to the birds as the footpath).

Although we are proposing an additional 260m of path be established on the western field-edge, it is approximately 100m further away from the birds' favoured area than the existing PRoW on the southern field boundary, and is not visible from it. As the field is not within spreading room there should be no greater risk of disturbance of the birds from the new segment of trail than from the existing PRoW. There will clearly be a large increase in numbers of users of the new segment of trail, because there is no existing right of access here, but the overall number of people using the Essex Way as a result of its national trail designation is expected to be only a small amount greater than those who currently use it.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by the establishment of a well maintained and easily followed trail on the proposed alignment.

D3.20 Field inland of saltmarsh near Markwell's Farm (TM 164 342)

I) Baseline situation

This is an arable field located immediately to landward of the saltmarsh near Markwell's Farm. It has a gentle south-easterly slope towards the saltmarsh. There are the remains of a seawall separating the two, but it has long since fallen into disrepair and saltwater very occasionally floods into the lower part of the field.

The field is used by some species of waterbirds when water levels in the estuary are high, and particularly when there is limited space on the saltmarsh. This is an especially important site for curlew, which are found here in large numbers between August and April.

There are no existing PRoW within the field, the nearest being on the seawall to the north-east side of the saltmarsh, which is part of the Stour and Orwell Walk. Going westward from the seawall the Stour and Orwell Walk passes inland of this field and of the fields to the west.

II) Detailed design features of the access proposal

We propose that the trail follows the alignment of the Stour and Orwell Walk throughout this area. Because this takes it some distance inland, a broad swathe of land will become coastal margin by default, including this field. However, the field will not be included within spreading room, being arable.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

Had we proposed that the trail be located through this area, it would have presented a disturbance risk to SPA waterbirds using the saltmarsh. Arguably, it would have presented a greater threat to birds using the field; curlew, for instance, are sensitive to disturbance from a relatively long distance.

However, there are four factors that should combine to ensure that our proposals do not have adverse effects:

- We propose that the trail is located well inland, separated from the field by houses and gardens.
- The field will be excepted land within the coastal margin
- We propose that all of the adjacent saltmarsh and mudflats be excluded from access under section 25A.
- The field would be physically very difficult to access from any direction other than the adjacent field to the west, which is also arable and therefore excepted land.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by the establishment of a well maintained and easily followed trail on the proposed alignment.

D3.2P Field to north-east of Factory Marsh, at Brantham Hall Farm (TM 115 332)

I) Baseline situation

This field is similar to the field inland of the saltmarsh near Markwell's Farm, in that it is arable, is close to an area of saltmarsh, and has the existing Stour and Orwell Walk some distance to landward. It has added layers of complexity, though:

- There are existing PRoW on two of its three sides, the railway being on the third side.
- There is a small reedbed to the immediate south-west, separating the field from Factory Marsh.
- Network Rail intends to close the railway crossing situated between the reedbed and Factory Marsh, meaning that the seawall footpath will be severed at this point. It proposes a new link in the footpath network, to the south-east of the railway embankment, to compensate for the footpath closure.
- A large, hybrid planning development, including approximately 320 new homes, has planning permission. This affects the land just the other side of the railway line and is expected to increase the numbers of walkers on local footpaths.

In August and September the field hosts large numbers of golden plover and lapwing, the latter being part of the SPA waterbird assemblage.

II) Detailed design features of the access proposal

We propose the trail adheres to the existing PRoW/ Stour and Orwell Walk, on higher ground to the northeast of the site. This would bring the site within the coastal margin, but as it is mostly arable land the majority of it would be excepted in terms of spreading room. There are also areas of wetland/ reedbed, but these are physically difficult and unappealing to access.

The presence of waterbirds was a reason for us deciding not to propose the trail follow the south-east side of the railway embankment, as this would have put walkers in clear view of them.

III) Consideration of possible risks to qualifying features at this location in light of the access proposal

The field is large enough that birds can position themselves some distance from both the seawall and Stour and Orwell Walk, should they wish, and there is an almost-continuous borrowdyke separating them from the seawall, which confers an added sense of security.

We expect national trail designation to lead to, at most, a small increase in use of the existing Stour and Orwell Walk, and we believe our proposed alignment has the least impact of the options available. It means that any areas of land to seaward of it that are not excepted (e.g. arable land and the railway embankment are both excepted) will fall within spreading room, and this would apply to the existing seawall footpath route, and potentially to any route opened up by Network Rail. However, the alternative would have been to use these routes as components of the trail, which would have had the effect of focusing coast path walkers in these more sensitive areas, rather than on the Stour and Orwell Walk, which currently has little effect on birds within this field site.

Natural England has considered the possible risks to qualifying features at this location and concluded that no new adverse impacts should result from coastal access proposals. The long-term management of visitors will be facilitated by the establishment of a well maintained and easily followed trail on the proposed alignment.

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

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?
Disturbance to foraging or resting non- breeding waterbirds (waders and waterfowl) both within the SPA/Ramsar site and on	 These fall into three categories: route alignment, coastal margin and signage. 1. Route alignment Where there are large existing gaps in shoreline access we propose inland alignment of the trail, notably the shoreline between Bradfield and 	Yes. The Stour estuary's value to waterbirds derives from its extensive mudflats and numerous pockets of saltmarsh, combined with relatively low levels of land and water-based human activity (Ravenscroft and others, 2007; Vonk and Gibson, 2008).	Yes. On a small number of occasions each year, the anticipated small increase in use of

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?
functionally- linked land outside. Changes in recreational activities as a result of the access proposal may lead to reduced fitness and reduction in population and/or contraction in the distribution of qualifying features within or near the site.	 Mistley, and between Graham's Wharf and Markwell's Farm, south of Stutton. A large proportion of the trail alignment is on existing PRoW, where legal rights of access will continue unaffected, even if the trail were to be located inland. Any totally new lengths of trail (i.e. not on or near existing PRoW or walked routes) to be located some distance inland of the estuary. There are places where we propose that the trail be located on existing walked routes (i.e. non-PRoW) on or near the shoreline, thereby introducing new rights of access. In these cases the trail would have either a neutral or positive effect, e.g: Short segments of trail where PRoW do not technically exist, but where public access is well established or encouraged by local authorities, e.g. at Skinner's Wall, Manningtree, and the seawall at the Royal Hospital School. On sections where the trail will follow a cliff-top or field-edge, this is less sensitive in terms of bird disturbance than where the existing PRoW runs along the beach or foreshore Where we propose 260m of new trail in the same field 	 Where we propose use of existing PRoWs there is already some interaction between walkers, dogs and wintering waders. This sometimes results in more serious disturbance, but normally results in minor behavioural responses by the birds, such as increased alertness/ walking away/ short flights. These are short-lived, localised and occur at levels inconsequential to the fitness or distribution of non-breeding waterbird populations. Over most of the stretch, establishment of the England Coast Path is expected to lead to a small increase in recreational activity at most, compared to existing levels. Only where we create new sections of path, away from PRoW and existing walked routes, will there be a large increase in use, and only one of these locations – the arable field to the north-east of Mistley Heath - is close to a sensitive site not already directly affected by a PRoW (although the Essex Way is 300m away). In the areas of land adjacent to the shore currently lacking access we propose that no new access is established, meaning that: No new disturbance threat will be created. Birds which are displaced by people or dogs elsewhere on the stretch will continue to have refuges where they may resume feeding undisturbed without having to expend energy flying to other estuaries. As we don't propose trail alignment through any areas of saltmarsh or mudflat, any threat would result 	existing PRoW might combine with exceptionally high tides to cause higher levels of bird disturbance. This might arise where birds are pushed closer to the shore, or where larger flocks (potentially containing more 'jumpy' individuals) build up in nearby fields.

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?
	 favoured by dark-bellied brent geese, to the north-east of Mistley Heath, it is to be located on a field edge 400m from the favoured area and invisible from it. Alignment of the trail slightly inland at Wrabness Nature Reserve to enable management of shoreline access if appropriate in the future, and to exploit existing shrubs as screening. Alignment of the new section of trail landward of the saltmarsh and foreshore near the headland to the south of Nether Hall, Harkstead. Location of the trail 300m inland of Factory Marsh saltmarsh. 2. Coastal margin All of the SPA/ Ramsar saltmarsh and the great majority of the intertidal mud are unsuitable for walking and access will therefore be excluded by direction under section 25A. Of the limited intertidal areas where this will not apply, nearly all are alongside beaches where existing levels of access are relatively high and they are therefore less sensitive to the limited increase in visitors likely to result from our proposals. The only saltmarsh where section 25A will not apply is the small, relatively insensitive area at The Walls, Mistley, which is just outside the European sites' boundary. 	 from them being within the coastal margin. We expect any adverse effects on site integrity to be avoided by the combination of: Our proposal that access be excluded from almost all saltmarsh and mudflat. The physical difficulty of gaining access to the majority of these areas. Our proposal that dogs be denied access to Copperas Wood by direction. Signage designed, in part, to promote positive action by walkers and, especially, dog owners. The environmental conditions of the Stour estuary are dynamic and influenced by a number of human activities. There are other plans and projects currently in development that could, like our proposals for the England Coast Path, influence how the stretch is used for recreation. In order to ensure that the implementation of coastal access in this area is complementary to other planned initiatives we have carried out a further in-combination assessment below. 	

where new rights of access to a large part of the margin

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?
objectives	 could present a heightened risk of disturbance and there is ready access from the trail, we propose a 'No dogs' restriction on access. This will cover all of the margin between the railway and the shore. 3. Signage Signage at five key locations, explaining the importance of the estuary for wildlife, the risks associated with disturbance, and how to avoid them. Also to highlight areas where dog walking has less impact. These will be at: The Quay, Harwich Wrabness Nature Reserve The Walls/ Quay St, Manningtree Lower Holbrook Shotley Gate Additional, site-specific signage at: Sluice Rill, near Wrabness Nature Reserve, advising of the threat posed by dogs off leads. The saltmarsh at Ragmarsh Farm, advising of the absence of coastal exercise of the absence of coastal exercise of the absence of coastal exercise of the absence of coastal exercises of the absence of coastal exercises of the absence of coastal exercises and the serve of the absence of coastal exercises and the serve of the serve of the serve of coastal exercises and the serve of coastal exercises and the serve of coastal exercises and the serve of the s	(Yes/No) Give reasons.	
	 access rights and the adverse effects of disturbance. Copperas Wood RSPB reserve, highlighting the 'No dogs' restriction. 		

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, although there is some residual risk of insignificant impacts:

Disturbance to foraging or resting non-breeding waterbirds (both waders and waterfowl) both within the SPA/Ramsar site and on functionally-linked land outside. Changes in recreational activities as a result of the access proposal may lead to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within or near the site.

D4. Assessment of potentially adverse effects considering the project 'incombination' with other plans and projects

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

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

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

Natural England considers that in this case the potential for adverse effects from the plan or project has not been wholly avoided by the incorporated or additional mitigation measures outlined in section D3. It is therefore considered that there are residual and appreciable effects likely to arise from this project which have the potential to act in-combination with those from other proposed plans or projects. These are:

Disturbance to foraging or resting non-breeding waterbirds (both waders and waterfowl) both within the SPA/Ramsar site and on functionally-linked land outside. Changes in recreational activities as a result of the access proposal may lead to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within or near the site.

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

Table 9. Review of other live plans and projects.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
Babergh and Mid Suffolk District Councils Ipswich Borough Council	Babergh and Mid Suffolk Joint Local Plan Ipswich Local Plan 2011-2031 Suffolk Coastal Local Plan	No. Adherence to the local Recreational disturbance Avoidance and Mitigation Strategy (see below) should mean that there are no likely significant or appreciable residual effects to be taken into account. The local plans of the Suffolk planning authorities closest to the Stour estuary are considered together because the authorities are participating in a joint strategy for avoiding and mitigating the adverse effects of recreational activity likely to affect European sites. This is outlined below.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
Suffolk Coastal District Council		Babergh and Mid Suffolk District Councils' development planning policies are under review and they are working together to produce a Joint Local Plan. They produced their Joint Local Plan Consultation Draft in August 2017.
		The Ipswich Local Plan covers Ipswich Borough and was adopted in February 2017.
		At the time of writing, Suffolk Coastal District Council is working on its Local Plan review, with an anticipated adoption date of late 2019.
		All of the above planning authorities are working together to align their local plans within the 'Ipswich Policy Area' to make them more effective. This is likely to be particularly beneficial with regard to housing allocations because it is likely (given increasing pressure from central government and the precedent set by neighbouring local authorities) that the emerging local plans will make provision for substantial increases in the numbers of residential units compared with existing/ previous documents.
		A Memorandum of Understanding (MoU) was agreed in June 2016 by the four local authorities above and Suffolk County Council. It commits them to continued joint working to, for example:
		Agree objectively assessed housing need for the Ipswich Housing Market Area (the local authority areas of Ipswich Borough, Mid Suffolk, Babergh and Suffolk Coastal).
		Identify broad locations to accommodate forecast growth.
		 Ensure the implementation of any mitigation measures required as a result of the Habitats Regulations Assessments (HRAs).
		At the time of writing, HRAs have not yet been carried out for the emerging local plans, but the ones that were carried out for the relevant existing/ previous documents all concluded that increased recreational activity resulting from new housing provision had the potential, in the absence of mitigation, to cause significant impacts on European sites, including the Stour and Orwell Estuaries SPA and Ramsar site.
		The authorities have been working with their consultant, Footprint Ecology, to develop a joint approach to protection of European sites: the joint Suffolk Recreational disturbance Avoidance and Mitigation Strategy (RAMS). Natural England has been closely involved in development of this strategy.
		The RAMS will form part of a strategic solution to mitigate recreational impacts on sensitive designated sites which are likely to arise as a result of increased housing in the councils' areas over the respective local plan periods. 'Zones of influence' (Zols), within which residents of new housing are likely to regularly visit relevant designated sites for recreation, have been identified through the Suffolk RAMS work. The

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
Colchester Borough Council Tendring District Council Braintree District Council	North Essex Authorities' emerging Local Plans, comprising: North Essex Authorities' Shared Strategic Part 1 for Local Plans Colchester Part 2 Local Plan (2013 – 2033) Tendring Part 2 Local Plan (2013 – 2033) Braintree Part 2 Local Plan (2016 – 2033).	 Zol for the Stour and Orwell Estuaries SPA/ Ramsar site has been identified as 13km. For residential development which falls within 13 km of the Stour estuary, the RAMS (or associated Supplementary Planning Document) will, once adopted, specify requirements for developer contributions to an agreed and costed scheme of measures which have been developed to mitigate impacts. These measures include: On-site 'Suitable accessible natural greenspace' (SANG). Off-site measures such as wardening, access management, education/ information, etc. RAMS assesses protected sites and defines actions and associated costs for mitigation and site enhancement. Funding is raised via tariffs applied to each new residential unit within the Zol. The significant benefit of RAMS is that house purchasers, developers, and regulators can be sure that funds are used in accordance with a strategly that is evidence-based, co-ordinated and consistent. The strategic approach means that interventions are more likely to be effective, and to negate the need for individual developers to formulate proposals on a piecemeal, potentially less effects to be taken into account. The emerging local plans of the three North Essex Authorities (NEAs) are considered together because: These authorities are collaborating to produce a shared Strategic Part 1 plan for their combined areas. This covers 10 strategic policies, including one for each of three proposed to start at similar levels but to ultimately increase to 15 – 20,000, and 10 – 13,000 homes respectively. A Zone of Influence (ZoI) of 13km has been adopted by the NEAs when assessing the impacts of their plans on the Stour and Orwell SPA/ Ramsar site. This ZOI includes half the conurbation of Colchester, and brings many Colchester Garden Community, into scope for assessment under Habitat Regulations.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
		Avoidance and Mitigation Strategy' (Essex Coast RAMS) covers ten Natura 2000 sites, together covering the whole of the Essex coast and estuaries, including the Essex side of the Stour estuary. Essex County Council's Place Services team was commissioned to develop the Essex Coast RAMS. As of April 2019, Colchester BC and three other councils had secured approval from planning committees to undertake public consultations on associated supplementary planning documents; the remaining eight (including Tendring and Braintree) intended to follow the same procedure after the May 2019 local elections.
		Note: The Part 1 Strategic Plan went through examination hearings in January and May 2018. In December 2018 the Inspector announced a pause in the examination while the NEAs carry out further work on the evidence base and Sustainability Appraisal (SA). The examination is expected to remain paused until the NEAs' further work on the evidence base and SA is complete. At the time of writing this assessment the three authorities are aiming to consult on the updated evidence base and any proposed modifications from mid-August 2019. There is still therefore some uncertainty as to whether the garden communities will continue in their current form and location. The text above and below reflects the situation prior to any potential changes being made to proposals or assessments.
		Taken together, the shared Strategic Part 1 Plan and the three Part 2 plans aim to deliver about 43,765 new homes over the plan period, including 18,400 in Colchester Borough and 11,000 in Tendring District (the two local authority areas closest to the Stour estuary).
		The consultation on the Preferred Options for the Colchester Part 2 Local Plan (September 2016) includes housing allocations in several villages within the 13km Zol of the Stour estuary, including 125 houses at Langham and 250 at Wivenhoe, although the allocations for the closer villages tend to be much smaller (e.g. 17 at Dedham).
		Preferred Options for the Tendring District Part 2 Local Plan (July 2016) include more extensive housing allocations in close proximity to the Stour estuary, notably 819 houses at Harwich and Dovercourt, and 520 at Manningtree, Lawford and Mistley. A large proportion of the latter allocations are situated directly adjacent to our proposed trail alignment at Mistley (at Harwich Road and the EDME malting site).
		Conclusions of the HRA screening reports The HRA screening reports for the NEA's Strategic Part 1 for Local Plans and for Tendring's Part 2 Local Plan conclude that the housing allocations proposed are likely to cause significant recreational disturbance impacts to the Stour and Orwell Estuaries SPA/ Ramsar site, with no mitigation taken into account.
		The HRA screening report for Braintree's Part 2 Local Plan concluded that it would not give rise to likely significant impacts on the Stour and

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
		Orwell Estuaries SPA/ Ramsar site, either alone or in combination with other plans or projects, because of the small number of visitors likely to travel from the district.
		Colchester Borough Council's HRA Part 2 screening report followed a different process and is discussed below.
		The consultants acting for the NEAs advise that the most pragmatic way to deliver the required avoidance/mitigation measures is to develop and implement an integrated RAMS. They recommend that the RAMS is developed jointly by the three NEAs in close collaboration with Natural England and other regulatory bodies.
		However, as noted above, it was subsequently decided that the Essex half of the Stour estuary will be included within a single Essex Coast RAMS, to be funded by housing across 12 Essex planning authorities within reach of the coast. All 12 authorities are now signed up to the Essex Coast RAMS through a Memorandum of Understanding.
		To address recreational impacts, the report recommends the RAMS includes: provision of alternative open space and green infrastructure, ongoing visitor monitoring, and a variety of site management measures. The latter may include fencing, screening, hides, wardening, interpretation boards, route signage, seasonal changes to routes, the promotion of codes of conduct for user groups, and habitat management and enhancement. The report recognises the particular need to work closely with Natural England as the England Coast Path project is implemented locally.
		Final conclusions of the HRA reports
		The HRA report for the NEA's Part 1 Local Plans concludes that (with regard to recreational impacts): 'the Shared Strategic Part 1 for Local Plans will not result in adverse effects on the integrity ofStour and Orwell Estuaries SPA/ Ramsareither alone or in combination, due to the adequacy, appropriateness and effectiveness of the mitigation proposed.'
		The draft HRA report for Tendring's draft Part 2 Local Plan reaches the same conclusion.
		The draft HRA report for Colchester's draft Part 2 Local Plan (drafted by Colchester BC's Spatial Policy Team, rather than the consultants employed by the NEAs to produce the Part 1 HRA and Tendring and Braintree's Part 2 HRAs) follows a different methodology to the other HRAs. It is at odds within them in that it screens out any Likely Significant Effect on the Stour and Orwell estuaries. Its conclusion (for all local European sites) stated 'Having considered likely significant effects and the inclusion of these measures enables the LPA as competent authority under the Habitats Regulations to conclude that

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
		Section 2 of the Local Plan will not adversely affect the integrity of European sits either alone or in-combination'.
		Note: The methodology used, and conclusion reached by Colchester BC's report were disputed by Natural England. A Statement of Common Ground was subsequently produced and Colchester BC has since signed up to the Essex RAMS approach. This will ensure that the required mitigation measures to mitigate recreational disturbance issues will be addressed from both their Part 1 and part 2 local plans.
		Note: Some sites within the above housing allocations will already have planning permission and not be subject to RAMS, e.g. the site south of Harwich Road, Mistley (which is on the proposed trail alignment), where off-site mitigation provision was not a condition of the planning permission (see below).
Natural England	England Coast Path: Jaywick to Harwich stretch	The HRA for this stretch is not due to be completed until after this report is published. Combinable effects were identified by the preceding Access and Sensitive Features Appraisal (ASFA) (see below), but none of these are deemed likely to combine with residual effects identified by this assessment to bring about likely significant effects.
		The Coastal Access Report and associated ASFA for the Jaywick to Harwich stretch were published in August 2017, and are currently being considered by the Secretary of State.
		The requirement for HRA was established after submission of our report for the Jaywick to Harwich stretch and an HRA will be available shortly. We will review the need for further assessment of incombination effects between these two sets of proposals as part of our HRA for the Jaywick to Harwich stretch.
		The stretch passes through the major settlements of Clacton, Frinton, Walton-on-the-Naze and much of Harwich. It also includes Hamford Water National Nature Reserve (which has several nature conservation designations, including SPA and Ramsar); an embayment containing an extensive complex of creeks, intertidal mud, saltmarsh and open water, as well as some small islands.
		For the majority of the stretch the trail proposals follow existing public footpaths and well-established walked routes. All the saltmarsh and mudflats are considered unsuitable for public access and subject to a section 25A access exclusion. A section 26 nature conservation access exclusion is recommended for Horsey Island.
		Over the large majority of this stretch only a negligible to small increase in access is predicted to result from establishment of the England Coast Path. Any changes in use of the coastal margin are predicted to be small, at most, and mainly limited to areas where access exclusions are inappropriate.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
		Mitigation against possible effects on sensitive features forms part of the proposals and includes signage in several places, advising visitors on how to avoid causing any damage, as well as alignment of the trail away from the most sensitive features.
		On only one section is a large increase in use of the route anticipated, and this is where there will be new access (i.e. not following an existing PRoW) and this is where the alignment is proposed to be some distance from sensitive features in order to avoid disturbance impacts.
		The Jaywick to Harwich ASFA identifies several residual non- significant effects on nature conservation features:
		A possible small increase in disturbance to:
		 Overwintering and passage waterbirds and to breeding birds. Affected areas: The Naze and Hamford Water (route subsections 3, 4 & 5)
		A possible small increase in damage through trampling of:
		 Fisher's estuarine moth habitat. Affected areas: Hamford Water (route subsections 4 & 5)
		 A vascular plant assemblage. Affected areas: Hamford Water (route subsections 4 & 5)
		 A strandline community. Affected areas: The Naze and Hamford Water (route subsections 3, 4 and 5)
		 Saltmarsh vegetation. Affected areas: The Naze and Hamford Water (route subsections 3, 4 and 5)
		When the ASFA for the Jaywick to Harwich stretch was produced, all these potential impacts were assessed as below 'likely significant effect' level once relevant mitigation measures were taken into account. None are expected to combine with residual effects from the Harwich to Shotley Gate Stretch to result in likely significant effect on the European sites, but (as noted above), this conclusion will be reviewed by the HRA for the Jaywick to Harwich stretch when it is produced.
Natural England	England Coast Path: Shotley Gate to Felixstowe Ferry stretch (Orwell Estuary)	Work on the Shotley Gate to Felixstowe Ferry stretch commenced in early 2017. Our proposals for this stretch are still in development but they will also affect the Stour and Orwell Estuaries SPA/ Ramsar site. We will review the need for further assessment of in-combination effects between these two sets of proposals as part of our HRA for Shotley Gate to Felixstowe Ferry.
		The Orwell and Stour estuaries are geographically closely related, as they both flow into the North Sea through Harwich Harbour. They also function as a single ecological unit in some respects, with several bird

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
		populations moving between the two estuaries at certain times, especially when disturbed. There are many similarities in the characters of, and challenges posed by the two estuaries, and they are jointly managed by the Stour and Orwell Estuaries Management Group, which produces and reviews statutory management documents regularly (see Appendix 1). Close contact has been maintained between the teams working on the two stretches to ensure consistency of approach, and to identify any
		potential for decisions made re one stretch having implications for the other.
Network Rail	Network Rail's Anglia Level Crossing: Reduction Strategy and associated Habitats Regulations Assessment: Task 1 Screening S01 Sea Wall (Jan 2017)	 No combinable effects identified by Network Rail's assessment of Likely Significant Effects (LSEs) Network Rail has a programme of 'at grade' rail crossing closures. One of the crossings it wishes to close is known as 'SO1 Sea Wall' and in 2017 it produced an HRA 'Task 1 Screening' document to accompany its proposals for this asset, which is adjacent to Factory Marsh, Brantham. The document assesses the proposals for LSEs. Associated with the rail crossing closure is the proposed creation of a new length of public footpath to compensate for the closure of the footpath which currently crosses the railway via the crossing. The proposed footpath would follow the south-eastern side of the railway embankment and would enable users to walk between the existing footbridge over the railway (to the north-east of the crossing), and the existing footpath on the seawall, meeting it a little way to the east of the crossing. The document assesses the potential for impacts on the European sites and a zone of influence around them, but it is not clear whether it considers the potential impacts of ongoing disturbance (from walkers using the new footpath) on relevant species making use of land outside the SPA, including the field where the proposed footpath would be located, where waterbirds are known to congregate at times. The report concludes that: 'Step 3 of the screening exercise identified a number of potential impacts on qualifying features of the Sour and Orwell Estuaries SPA/Ramsar as a result of the Project. These included: noise disturbance, accidental pollution of water and disturbance associated with artificial lighting during construction; and disturbance from human presence, both during construction and operation. In all cases, the potential impacts identified relate to bird features (waterfowl assemblage) of the site, with no potential impact pathways identified for other features.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?	
		No LSE has been identified to any SPA feature and as such, this assessment does not require further assessment on site integrity.'	
		The executive summary says that: ' No likely significant effect alone or in combination can be concluded , on the understanding that construction works such as removal of level crossing infrastructure and fence installation, would not be undertaken between September – March inclusive (the winter period for waterbirds) or within 300m of mean high water springs (MHWS).'	
		Network Rail's proposals were subject to a Public Inquiry, during which the Inspector questioned whether the screening report should be reviewed in the light of the judgment of the Court of Justice of the European Union in <i>C-323/17 People Over Wind v Coillte Teoranta</i> . Counsel for Network Rail subsequently agreed with Counsel for Suffolk County Council, in a Note produced for the Inspector, that a revised approach was not necessary, despite the report including references to mitigation measures to avoid impacts on European site features. The Public Inquiry closed in May 2018.	
		Network Rail's proposals are, at the time of writing, still being considered by the Department for Transport Orders Unit. The outcome is therefore not known, but as noted above, no combinable effects were identified by Network Rail's HRA.	
Bathside Bay development	Construction of a new container port and small boat harbour, and associated works.	Hutchison Ports (UK) Limited applied for planning permission for a new container port in 2003. Public Inquiries were held in 2004, and in 2006 the Secretary of State granted permission for a container port and small boat harbour, and listed building consent re a train ferry gantry. Substantial harm to the integrity of the Stour and Orwell Estuaries SPA	
		had been identified, but the Secretary of State found that imperative reasons of overriding public interest outweighed those concerns.	
		The development has yet to take place and planning permission has most recently been extended until 2021. It remains conditional on extensive compensatory habitat being created and monitoring of its effectiveness carried out. As such, appreciable residual effects that would need to be considered in combination with our proposals have not been identified.	

Table 10. Review of further plans and projects.

The initiatives below are included for completeness, but do not fit the criteria for 'plans or projects' eligible for in-combination assessment.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
Babergh District Council	Planning Application: Brantham Industrial Estate and land to the north of Factory Lane, Brantham (BDC ref: B/15/00263/FUL). A hybrid application including regeneration of the existing industrial estate and development of adjoining land to include approximately 320 dwellings.	 This development site is no longer regarded as a 'live plan or project'. It is included in this table in acknowledgement of the scale of the residential development involved, its close proximity to the proposed trail alignment, and the considerable local interest taken in the application. Proposals for the site were approved by Babergh District Council in 2016. Natural England's advice at the time was that it agreed they would not result in adverse effects on the integrity of local sensitive sites, bearing in mind the suite of mitigation measures to be implemented, which were to include: Public open space within the development site, including a 1km circular, all-weather path, interpretation boards advising of other local walking routes, and dog waste bins. A user-friendly information pack to be supplied to all new residents by the Suffolk Coast and Heaths AONB team. Signage at strategic places to increase awareness of the need to protect important habitats, keep dogs under control and prevent disturbance of birds. A financial contribution to the monitoring of recreational disturbance of the SPA, to be carried out by Babergh DC. Should this show that impacts are occurring and that they are attributable to the new development, fencing will be erected to prevent dogs gaining access to adjacent saltmarsh.
Natural England	Boundary Review: Suffolk Coast and Heaths Outstanding Area of Natural Beauty (see Map F)	At the time of writing, Natural England is about to make an Order extending the Suffolk Coast and Heaths AONB to cover much of the estuary and its southern bank (the Suffolk bank is already within the AONB). Once made, the Order will be submitted to the Secretary of State for Environment, Food and Rural Affairs for confirmation. The designation will not come into effect unless and until confirmed by the Secretary of State. The act of designation is not considered by Natural England to be a 'plan or project' for the purposes of a Habitats Directive assessment. Any effects will not be the result of the act of designation, but may follow from future plans, policies and projects developed subsequently by the relevant authorities post designation, e.g. future versions of the AONB Management Plan, all of which would themselves be subject to assessment where relevant.

As well as the above plans and projects, we also highlight the importance of the *Stour* & *Orwell Estuaries Management Strategy* 2016 – 2020. This is a statutory document containing several objectives and

associated actions which are directly relevant to both the Harwich to Shotley Gate stretch and the Shotley Gate to Felixstowe Ferry stretch of the England Coast Path.

The Strategy has not been subject to HRA, so no non-significant (or significant) risks have been identified for formal 'in-combination' assessment within this document. However, because of its importance, a summary of its relevance to our proposals is provided in Appendix 1.

The majority of the actions within the strategy are focused on managing and reducing the negative impacts of recreational activity, so to the extent that it interacts with our proposals and those for the forthcoming Shotley Gate to Felixstowe Ferry stretch, the outcomes should be wholly positive in terms of reduced impacts on sensitive sites.

In light of this review we have not identified any insignificant and combinable effects that are likely to arise from other plans or projects.

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

In light of the conclusions of Steps 1 and 2, no further in-combination assessment is required.

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 the European sites.

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 Stour and Orwell Estuaries Special Protection Area and 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 Harwich and Shotley Gate 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		Lead Adviser, Coastal
prepared and	This	Access
completed by:	Kim Thirlby	
Date	04.11.19	
HRA approved:	Fideren	On behalf of the Coastal Access Programme Team
	Sally Fishwick	
Date	07.11.19	
HRA approved:	JhnTolen	Senior officer with responsibility for
	John Torlesse 🗸	protected sites, Essex
Date	08.11.19	
HRA approved:	Andy Millar	Senior officer with responsibility for protected sites, Suffolk
Date	08.11.19	l

Coastal Access: Harwich to Shotley Gate - Natural England's Proposals

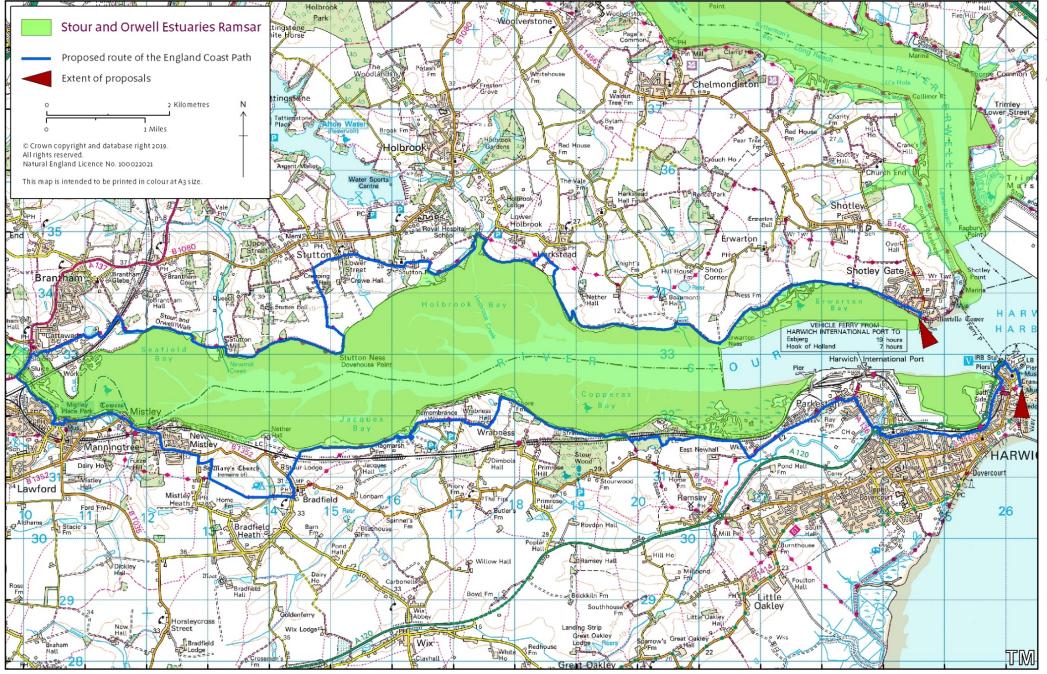
Coastal Access: Habitats Regulations Assessment

A. Overview of trail alignment and lengths



Coastal Access: Harwich to Shotley Gate - Natural England's Proposals Coastal Access: Habitats Regulations Assessment

B. Key designations - Ramsar sites



Coastal Access: Harwich to Shotley Gate - Natural England's Proposals Coastal Access: Habitats Regulations Assessment

C. Key designations - Special Protection Areas (SPA)



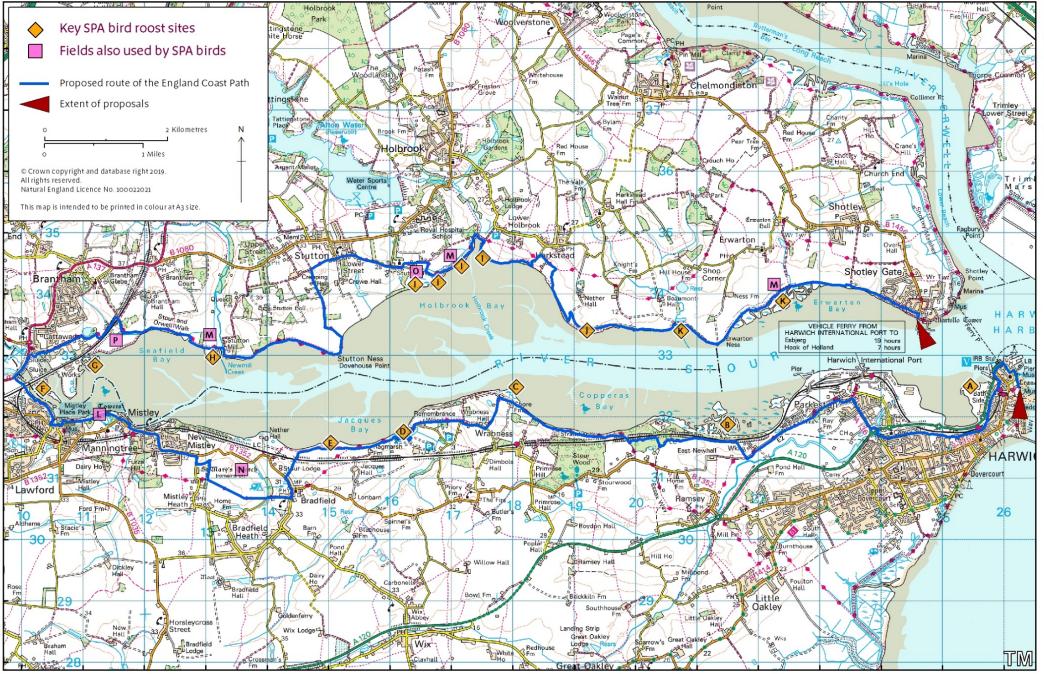
Coastal Access: Harwich to Shotley Gate - Natural England's Proposals Coastal Access: Habitats Regulations Assessment

D. Key designations - Sites of Special Scientific Interest (SSSI)



Coastal Access: Harwich to Shotley Gate - Natural England's Proposals Coastal Access: Habitats Regulations Assessment

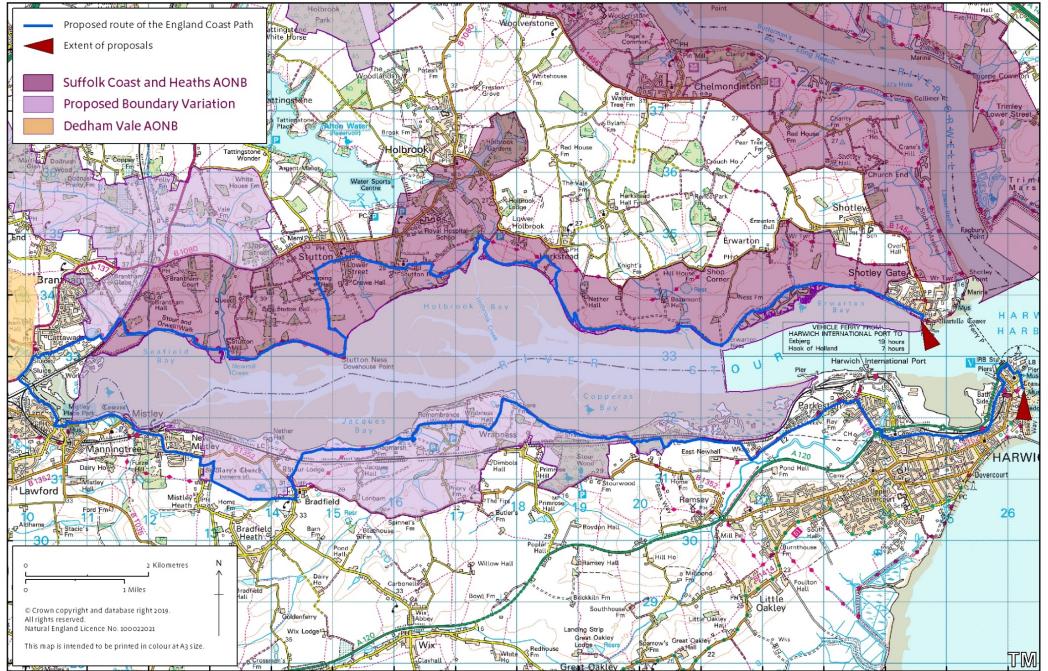
E. Key sites used by SPA birds



Coastal Access: Harwich to Shotley Gate - Natural England's Proposals Coastal Access: Habitats Regulations Assessment

NGI AN

F. Key designations - Areas of Outstanding Natural Beauty (AONB)



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79 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

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Appendix 1. Stour & Orwell Estuaries Management Strategy 2016 – 2020: Summary of key points

This is a statutory document containing several objectives and associated actions which are directly relevant to both the Harwich to Shotley Gate stretch and the Shotley Gate to Felixstowe Ferry stretch of the England Coast Path.

The Strategy has not been subject to HRA, so no non-significant (or significant) risks have been identified for formal 'in-combination' assessment by this document. However, because of its importance, a summary of its relevance to our proposals is provided here.

The majority of the actions within the *Stour* & *Orwell Estuaries Management Strategy* are focused on managing and reducing the negative impacts of recreational activity, so to the extent that it interacts with our proposals and those for the forthcoming Shotley Gate to Felixstowe Ferry stretch, the outcomes should be wholly positive in terms of reduced impacts on sensitive sites.

Vision statement: 'This strategy seeks to promote a sustainable future for the Stour and Orwell estuaries through the management of human activity in a way that is compatible with the conservation of the estuarine landscape and wildlife.'

The strategy covers four themes:

- 1. Integrated planning and sustainable development
- 2. Protecting environmental features and adapting to the changing coastal zone
- 3. Supporting sustainable commercial activities
- 4. Managing recreational activity

Theme 4 includes the following objectives and actions relevant to this assessment (abridged):

- Objective 4.1 We understand the positive and negative effects of recreational activity, now and into the future.
 - a. Undertake a comprehensive review of public access, incorporating existing research to identify areas of both opportunity and potential conflict, and levels of visitor usage.
 - b. Engage with authorities/forums on growth around Ipswich and propose how to manage likely increase in visitor numbers.
- Objective 4.2 Recreational activities are managed so they can be encouraged and enjoyed without adverse effect on the special qualities of the estuaries.
 - a. Produce the 'HRA Recreational Avoidance and Mitigation Strategy' and ensure consistency across LPA boundaries.
 - b. Promote measures that manage activities that cause disturbance, including: walking with or without dogs... and other activities that cause disturbance.
 - c. Produce a Disturbance Management Plan and a Code (or codes) of Conduct to cover all estuary users.
 - d. Employ measures to increase responsible dog-management.

- Objective 4.3 Raising awareness: A well-informed public enjoy the estuaries without harming their special qualities and support beneficial activities.
 - a. Encourage responsible use of the estuaries by encouraging positive behaviours.
 - b. Manage a coast and estuary warden (C&EW) scheme and coordinate with partners' ranger activities.
 - c. Report on outcomes of the C&EW scheme and identify further measures required.
 - d. Review the appropriate and consistent interpretation of the estuaries.
 - e. Increase involvement with young people and children to increase knowledge and understanding of the estuary environment.
- Objective 4.4 Visitor facilities are reviewed and where necessary improved to enable people to enjoy the estuaries.
 - a. Improve access and infrastructure to discourage people from straying from paths onto sensitive sites on adjacent land (e.g. saltmarsh).
 - b. Work proactively with Natural England to implement and maintain coastal access in the Stour and Orwell area with the rollout of the England Coast Path ensuring it does not adversely impact on the special qualities of the estuaries.
 - c. Manage sensitive areas to ensure public have access without damaging site features:

Appendix 2. Establishment works: nature conservation/ environmental factors to be taken into account

Once approval for a coastal access report is received from the Secretary of State, any necessary works can be carried out on the ground to make the trail fit for use and to prepare for its opening. In this case, works will be carried out by Essex and Suffolk County Councils, who will be responsible for ensuring they take appropriate steps to protect sensitive features while works are carried out, in line with any recommendations or conditions agreed in advance.

We have held preliminary discussions with Essex and Suffolk County Councils about the works required. We believe it is feasible for them to be carried out without adversely affecting the designated sites considered in this appraisal, provided that working methods are agreed with the relevant Natural England responsible officer (RO) as appropriate.

Legally protected species are an important consideration where works involve the removal or maintenance of existing features, or the construction of new features. Where these species are known, or are likely to be present, any works carried out should include appropriate mitigation in line with legislative guidelines. Appropriate measures must be taken to protect historic/ archaeological features and sites, and the relevant consents obtained before work commences. Care should also be taken to ensure the materials and design of items of infrastructure are appropriate to the landscape setting and minimise visual clutter.

The main considerations with regard to protected sites and species, and on-site working methods, are summarised in the bullet points and table below:

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

83 England Coast Path | Harwich to Shotley Gate | Habitats Regulation Assessment

Activity Advice Works should be timed to prevent or minimise disturbance of wintering Timing of works wildfowl and waders. Severe Winter Weather Restrictions will apply to works likely to disturb wintering wildfowl and waders when they are least able to cope with disturbance. Where works are likely to affect breeding birds the works should be timed to avoid the breeding season which is, for the majority of species, March to August inclusive. Timing may also need to be adjusted to take account of other species, such as those above. Access routes and ground protection measures/ other mitigation measures Use of heavy (as appropriate) should be agreed with the relevant RO to ensure damage machinery/ to the site or interest features/ legally protected species does not take storage of plant place. and materials Screening of plant and machinery to prevent visual and noise disturbance of wintering wildfowl and waders should be undertaken where necessary, under advice from the RO. Where legally protected species are known or suspected to be present all Presence of works should include appropriate mitigation in line with legislative Protected guidelines. **Species** Some species are afforded extra levels of protection and a licence may be required. Advice on the presence of legally protected species, and any special measures necessary, should be sought from the RO. Pollution prevention and control measures must be agreed with the RO Pollution and the Environment Agency, the relevant consents being obtained were prevention and appropriate. control Where necessary, appropriate measures must be taken to prevent the **Biosecurity** translocation and spread of invasive, non-native species. Where these are found to exist on site, or on tracking routes, advice should be sought from the relevant RO. Mitigation measures may include: the avoidance of certain areas; the use of geotextiles/ membranes to 'screen off' areas of ground; removal of contaminated material to licenced sites; chemical (pesticide/ herbicide) treatment;

Table 11. Activities which may affect the named species

Activity	Advice
	 the cleaning of plant, machinery or personal protective equipment before entry to, or leaving the site (or part of it); other measures agreed with the RO as necessary.

Essex and Suffolk County Councils will instigate the SSSI assent process by writing to us to confirm the timing of works and how operations are to be undertaken in line with these conditions. Natural England will provide further advice as necessary.

Works to be carried out by third parties

Occasionally, we may recommend a trail alignment which is dependent on works being carried out by a third party such as a landowner, rather than an access authority or ourselves. In these cases it is essential that all relevant environmental factors are taken into account *and that all the relevant consents and permissions are obtained from the appropriate regulatory body* (normally Natural England, Environment Agency, Historic England or Local Authority) before works commence. This responsibility rests with the third party, who may wish to employ suitably qualified consultants/ contractors to undertake design and construction work, and to obtain consents and permissions, on their behalf.

On the Harwich to Shotley Gate stretch, this scenario applies in one location: Adjacent to 'The Rough', Stutton Park, where the landowner proposes rebuilding a severely degraded seawall upon which we recommend alignment of the trail.

Front cover photo

Seawall, saltmarsh and Copperas Wood Kim Thirlby, Natural England

Enquiries about the proposals should be addressed to:

Coastal Access Delivery Team – Essex and Suffolk **Natural England** Eastbrook, Shaftesbury Road Cambridge CB1 8DR

Telephone:

Enquiries about our proposals for the Harwich to Shotley Gate Stretch: 0300 060 3900

Enquiries specifically regarding this HRA, or the associate NCA: 01206 298372

Email: <u>essexcoastalaccess@naturalengland.org.uk</u>

Natural England is here to conserve and enhance the natural environment, for its intrinsic value, the wellbeing and enjoyment of people and the economic prosperity it brings.

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