



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

**Assessment of England Coast Path proposals between
Wallasea Island and Burnham on Crouch**

On

**Outer Thames Estuary Special Protection Area (SPA),
Crouch and Roach Estuaries SPA and Ramsar site,
Essex Estuaries Special Area of Conservation (SAC)**

January 2020



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

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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 Wallasea Island to Burnham-on-Crouch, on the following sites of international importance for wildlife: Outer Thames Estuary Special Protection Area (SPA), Crouch and Roach Estuaries SPA and Ramsar site, and Essex Estuaries Special Area of Conservation (SAC).

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

<https://www.gov.uk/government/collections/england-coast-path-wallasea-island-to-burnham-on-crouch>

II) Background

The main wildlife interests for this stretch of coast are summarised in Table 1 (see Table 3 for a full list of qualifying features).

Table 1. Summary of the main wildlife interest

Interest	Description
Non-breeding waterbirds	Over the winter and during spring and autumn migration periods the Crouch and Roach Estuaries SPA and Ramsar sites support internationally important assemblages of waterbirds, including several species present in internationally or nationally important numbers. Saltmarshes, grazing marshes and water bodies - both within the sites and nearby - are also important feeding habitats, as are adjacent arable fields and grassland. Many species need suitable undisturbed places to roost at high tide, usually on saltmarsh.
Offshore foraging waterbirds	The Outer Thames SPA is designated for breeding / foraging common tern (<i>Sterna hirundo</i>) and little tern (<i>Sternula albifrons</i>). Both tern species breed in locations beyond this stretch of the coast path, though the SPA also protects important foraging waters for common and little tern which breed at six adjacent SPAs – an extension of the Outer Thames SPA partway up the Crouch estuary exists for this purpose. The site is also designated for non-breeding red-throated diver (<i>Gavia stellata</i>), which overwinters in large numbers within the southern North Sea in shallow inshore waters further seaward of this stretch of the coast path.
Saltmarsh, other intertidal	The Essex Estuaries SAC covers a diversity of intertidal and subtidal habitats. These are of considerable importance in their own right and also as essential

habitats, subtidal habitats.	supporting habitat for SPA and Ramsar site species and other wildlife. Across the SAC they include a variety of saltmarsh types as well as mudflats and sandflats. Within the upper reaches of the Crouch estuary mudflats largely dominate the main channel, with saltmarsh more prevalent in side channels and realignment areas.
Assemblages of wetland plants and invertebrates	The Crouch and Roach Estuaries Ramsar site supports assemblages of plants and invertebrates that are nationally scarce, rare and/or declining. Most of these species are associated with saltmarshes, grazing marshes and their ditches, or other brackish coastal habitats such as the borrow dykes and foldings behind sea defences.

III) Our approach

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

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

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

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

IV) Aim and objectives for the design of our proposals

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

A key consideration in developing coastal access proposals for this stretch has been the possible impact of disturbance on waterbirds as a result of recreational activities. Objectives for design of our proposals have been to:

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

V) Conclusion

We have considered whether our detailed proposals for coastal access between Wallasea Island and Burnham-on-Crouch might have an impact on Outer Thames Estuary Special Protection Area (SPA), Crouch and Roach Estuaries SPA and Ramsar site, and Essex Estuaries Special Area of Conservation (SAC). In Part C of this assessment we identify some possible risks to the relevant qualifying features and conclude that proposals for coastal access may have a significant effect on these sites. In Part D we consider these risks in more detail, taking account of the alignment of the majority of the route on existing access, the general separation of the route from designated features and/or lack of disturbance risk in areas of new access, and the access restrictions on saltmarsh and mudflat already incorporated into the proposals for health and safety (rather than nature conservation) reasons, and conclude that there will not be an adverse effect on the integrity of any site.

VI) Implementation

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

VII) Thanks

The development of our proposals has been informed by input from people with relevant expertise within Natural England and other key organisations. The proposals have been thoroughly considered before being finalised and our initial ideas were modified during an iterative design process. We are particularly grateful to Charlie Williams and to other organisations and local experts whose contributions and advice have helped to inform development of our proposals.

PART A: Introduction and information about the England Coast Path

A1. Introduction

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

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

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

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

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

A2. Details of the plan or project

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

Our proposals for coastal access have two main components:

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

England Coast Path

A continuous walking route around the coast – the England Coast Path National Trail - will be established by joining up existing coastal paths and creating new sections of path where necessary. The route will be established and maintained to National Trail quality standards. Where specified in our proposals, the coastal path will be able to ‘roll back’ as the coast erodes or where there is

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

significant encroachment by the sea such as occurs when sea defences are breached deliberately as part of a coastal 'managed realignment' scheme.

Coastal Margin

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

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

Where public access on foot already takes place on land within spreading room 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.

The following point is of particular relevance to this assessment:

i) Access to nearly all areas of saltmarsh and flats seaward of the proposed route in this stretch will be excluded year round by direction under s25A of the Countryside and Rights of Way Act (2000), because they are unsuitable for public access.

It should be noted that while the above restriction is not made on nature conservation grounds, it is important in reducing the potential for adverse effects on waterbirds and other sensitive SPA, SAC, and Ramsar site features. Therefore if in future there is a proposal to remove these restrictions from any areas along the stretch, further Habitats Regulations Assessment would be essential.

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 designated sites is maintained in light of unforeseen future change.

Establishment of the trail

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

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

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

See Appendices for maps of the stretch and designated sites.

Crouch and Roach Estuaries SPA and Ramsar site

The Crouch and Roach Estuaries SPA is located largely upstream of the open coast of south Essex, northwest / west of Foulness and southwest of the Dengie Peninsular. It covers about 1,850 ha and mainly comprises intertidal mudflats, saltmarsh and some grazing marsh. The intertidal zone along both estuaries is 'squeezed' between flood defences and the river channels, leaving relatively narrow strips of tidal mud and saltmarsh compared to other Essex estuaries. Nonetheless the site supports a large assemblage of waders and wildfowl in winter and during passage periods, including internationally important numbers of brent geese. Particularly along the Crouch, the birds tend to be concentrated in side channels and locations where breaching of the old seabanks has created wider intertidal areas, either as a result of historic flood events or recent managed realignment schemes. The SPA was extended recently to include two realignment sites created in 2001 and 2006.

The Crouch and Roach Estuaries Ramsar site covers the same area as the SPA. This designation includes the same avian features and also assemblages of nationally scarce plants and notable invertebrates.

Outer Thames Estuary SPA

This SPA covers over 390,000 ha of coastal waters from north Kent to Norfolk and supports a large proportion of the red-throated diver population overwintering in the southern North Sea. It also provides important at-sea foraging areas for colonies of little terns and common terns breeding within its boundaries and in other SPAs nearby, including Foulness SPA. The site covers intertidal as well as subtidal waters. Its coastline includes shingle and sand beaches, low cliffs and mudflat-lined estuaries. The southern part overlaps extensively with the Foulness and the Crouch and Roach Estuaries SPAs: it extends up the north side of the Thames to Southend and includes the Roach Estuary, the Crouch Estuary upstream to near North Fambridge, and creeks in the southwest part of Foulness that connect with the Roach.

Essex Estuaries SAC

The SAC contains the best example of a coastal plain estuary system on the North Sea coast. Covering an area of more than 46,000 ha, this relatively undeveloped estuary complex includes the major estuaries of the Colne, Blackwater, Crouch and Roach, as well as extensive open coast tidal flats at Foulness, Maplin and the Dengie.

The site protects a variety of intertidal and subtidal habitats that support many marine and estuarine species, including many of the waterbirds, plants and invertebrates that are features of overlapping SPAs and Ramsar sites. It covers extensive intertidal mudflats and sandflats that support a wide range of typical estuarine and marine communities and are key feeding habitats for many waterbirds. The SAC also contains a significant proportion of the country's saltmarsh resource. This saltmarsh ranges from pioneer to upper/transitional types and includes plant communities with restricted UK distributions, such as Mediterranean saltmarsh scrub and stands of small cord-grass *Spartina marina*. Saltmarshes are highly productive biologically, providing nutrients which support many other features. They also have an important physical role, acting as a sediment store to the estuary system as a whole and providing roosting sites for waterbirds at high tide.

A high proportion of the area within the Crouch and Roach Estuaries SPA also lies within the SAC. The SPA and the SAC share the same landward boundaries in many places, where these run along a seabank or the borrow dyke behind it. But the SAC does not include areas of grazing marsh inland of the borrow dyke, while the SPA generally does.

Table 2a. Avian Qualifying features

Avian Qualifying Feature	Crouch & Roach Estuaries SPA	Crouch & Roach Estuaries Ramsar site	Outer Thames Estuary SPA
A193 <i>Sterna hirundo</i> ; Common tern (Breeding)			✓
A195 <i>Sterna albifrons</i> ; Little tern (Breeding)			✓
A001 <i>Gavia stellata</i> ; Red-throated diver (Non-breeding)			✓
A046a <i>Branta bernicla bernicla</i> ; Dark-bellied brent goose (Non-breeding)	✓	✓	
Waterbird assemblages (Non-breeding)	✓	✓	

Bird species covered by the Ramsar Convention's Strategic Framework definition of 'waterbird' are included in SPA and Ramsar site waterbird assemblage features. 'Main component species' of an assemblage are those which regularly occur on the site in internationally or nationally important numbers or regularly exceed 2,000 individuals.

The main component species for the Crouch and Roach Estuaries assemblage are:

brent goose, shelduck, wigeon, teal, shoveler, little egret, avocet, golden plover, lapwing, dunlin, black-tailed godwit, (whimbrel), (common sandpiper), (green sandpiper), (greenshank), redshank.

Species in brackets are those with very low thresholds for national importance (<10 birds).

Table 2b. Non-avian Qualifying Features

Non-Avian Qualifying Feature	Essex Estuaries SAC	Crouch and Roach Estuaries Ramsar site
H1110 Sandbanks which are slightly covered by sea water all the time (Subtidal sandbanks)	✓	

H1130 Estuaries	✓	
H1140 Mudflats and sandflats not covered by seawater at low tide (Intertidal mudflats and sandflats)	✓	
H1310 <i>Salicornia</i> and other annuals colonising mud and sand (Glasswort and other annuals colonising mud and sand)	✓	
H1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) (Cord-grass swards)	✓	
H1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	✓	
H1420 Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>) (Mediterranean saltmarsh scrub)	✓	
Wetland plant assemblages		✓
Wetland invertebrate assemblages		✓

B2. European Site Conservation Objectives (including supplementary advice)

Natural England provides advice about the Conservation Objectives for European Sites in England in its role as the statutory nature conservation body. These Objectives (including any Supplementary Advice which may be available) are the necessary context for all HRAs. The overarching Conservation Objectives for every European Site in England are to ensure that the integrity of each site is maintained or restored as appropriate, and that each site contributes to achieving the aims of the Habitats Regulations, by either maintaining or restoring (as appropriate):

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

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

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

Draft supplementary advice on the conservation objectives for Crouch and Roach Estuaries SPA can be viewed at:

<https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9009244&SiteName=crouch&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

Draft supplementary advice on the conservation objectives for Outer Thames Estuary SPA can be viewed at:

<https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9020309&SiteName=outer%20thames%20estuary&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

Supplementary advice on the conservation objectives for Essex Estuaries SAC can be viewed at: <https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK0013690&SiteName=essex%20estuaries&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

For Ramsar sites, a decision has been made by Defra and Natural England not to produce Conservation Advice packages, instead focussing on the production of High Level Conservation Objectives. As the provisions on the Habitats Regulations relating to Habitat Regulations Assessments extend to Ramsar sites, Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests. However, for the purposes of this assessment it is important to note that the qualifying features of the Crouch and Roach Estuaries Ramsar site include assemblages of rare, vulnerable or endangered wetland plants and invertebrates that qualify under Ramsar criterion 2. These assemblages are not qualifying features of the equivalent SPA designations, or of the Essex Estuaries SAC. Ramsar Information Sheets for each site, available on the JNCC website, list species in the assemblages and give other details of the designation.

The Ramsar Information Sheet for the Crouch and Roach Estuaries Ramsar site can be viewed at: <http://jncc.defra.gov.uk/pdf/RIS/UK11058.pdf>

PART C: Screening of the plan or project for appropriate assessment

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

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

Conclusion:

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

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

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

In accordance with case law, this HRA has considered an effect to be 'likely' if it *'cannot be excluded on the basis of objective information'* and is 'significant' if it *'undermines the conservation*

objectives'. In accordance with Defra guidance on the approach to be taken to this decision, in plain English, the test asks whether the plan or project 'may' have a significant effect (i.e. there is a risk or a possibility of such an effect).

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

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

C2.1 Risk of Significant Effects Alone

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

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

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

Table 3. Feature groups

Feature group	Qualifying feature(s)
Overwintering and passage waterbirds	A046a Branta bernicla bernicla; Dark-bellied brent goose (Non-breeding) Waterbird assemblage (SPA and Ramsar)
Offshore foraging waterbirds	A001 Gavia stellata; Red-throated diver (Non-breeding) A193 Sterna hirundo; Common tern (Foraging area [Breeding]) A195 Sternula albifrons; Little tern (Foraging area [Breeding])
Saltmarsh	H1310 Salicornia and other annuals colonising mud and sand H1320 Spartina swards (Spartinion maritimae) H1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) H1420 Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi) H1130 Estuaries**
Subtidal habitats	H1110 Sandbanks which are slightly covered by sea water all the time H1130 Estuaries**
Intertidal habitats*	H1130 Estuaries ** H1140 Mudflats and sandflats not covered by seawater at low tide
Vascular plant assemblage	Ramsar plant assemblage
Invertebrate assemblage	Ramsar invertebrate assemblage

*Saltmarsh habitats are considered distinctive enough from other intertidal habitats to merit separate consideration – they are less subject to regular inundation by seawater so are more terrestrial in nature, they contain unique and sensitive plant communities, and they are potentially more readily accessible by and attractive to people in some circumstances.

**The ‘Estuaries’ feature contains a range of subtidal and intertidal sub-features that are also features in their own right. These sub-features are thus considered in the Saltmarsh, Subtidal habitats and Intertidal habitats feature groups, which is why Estuaries is listed under all three.

Table 4. Assessment of likely significant effects alone

Feature	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Overwintering and passage waterbirds	Disturbance of feeding or resting birds	Birds feeding or resting in the vicinity of a coastal path may be disturbed by recreational activities including walking and walking with a dog. Disturbance may also occur during installation of coast path infrastructure.	Low to medium risk. The level of risk is higher where the access proposals are likely to bring people close to places on which large numbers of birds depend, such as key high tide roost sites and important feeding areas, including on ‘functionally linked land’ (supporting habitat lying outside SPA boundaries such as grazing marsh and arable fields). The proposed route between Wallasea and Burnham largely follows existing rights of way, though there are some areas of new or enhanced access where changes to levels and patterns of use has the potential to impact on feeding or resting birds. Installation of path infrastructure, especially in new access areas, may also cause such impacts over a finite period of time.	Yes
Overwintering and passage waterbirds	Loss of supporting habitat through installation of access management infrastructure	The supporting habitats of the features may be permanently lost due to installation of new access management infrastructure.	Low risk. The level of risk is higher where there is a permanent and irreversible loss of the extent of supporting habitat which waterbirds depend on.	Yes
Offshore foraging waterbirds	Disturbance of feeding birds	Divers and terns using waters near the shore line in the vicinity of the Coast Path might be disturbed by	No appreciable risk. The Outer Thames SPA extends part way up the Crouch estuary past Burnham-on-Crouch	No

		land-based recreational activities including walking and walking with a dog.	(approximately as far as North Fambridge) solely to protect feeding areas used by common and little terns. Breeding tern areas covered by the SPA – and adjacent SPAs - are located some distance seaward from the upper Crouch. This area of the SPA upstream of Burnham is additionally not noted as being important for (or designated for) red-throated divers - the birds primarily utilise offshore open waters far seaward of the upper Crouch. The coast path route proposed between Burnham / Lion Creek and North Fambridge / South Fambridge on either side of the Crouch follows existing rights of way. Levels and patterns of use along these stretches on either side are not expected to increase or change significantly. Additionally foraging terns are not noted as being sensitive to disturbance from onshore activities such as walking / dog walking. There is thus no appreciable likelihood of the coast path proposals along this stretch having an effect on foraging terns.	
Saltmarsh	Trampling	If the Coast Path crosses saltmarsh, or the feature is included in spreading room, then trampling by walkers could damage the feature, changing its structure and species composition. Some saltmarsh plant communities are more sensitive to trampling than many terrestrial vegetation types.	Localised low risk, no appreciable risk elsewhere. For the great majority of this stretch, the Coast Path is aligned inland of the saltmarsh zone, generally along the top of a seabank. Nearly all the saltmarsh in the coastal margin is unsuitable for public access on foot and so will be excluded by direction. The proposed route follows an existing right of way across upper saltmarsh / transition habitat at Woodham Fen, and a new section of public access at Brandy Hole crosses / is adjacent to upper saltmarsh.	Yes
Saltmarsh	Loss of feature extent	Areas of saltmarsh may be permanently lost due to the	No appreciable risk. Along this stretch the Coast Path is aligned	No

	through installation of access management infrastructure.	installation of new access management infrastructure (e.g. signage, bridges, gates, surfacing).	inland of the saltmarsh zone and no infrastructure on saltmarsh is proposed.	
Intertidal habitats*	Trampling	If the Coast Path crosses intertidal habitats, or the features are included in spreading room between the trail and Mean Low Water, trampling by walkers could damage the features' structure and/or fauna and flora.	<p>No appreciable risk.</p> <p>The proposed route is not aligned across intertidal habitats at any point. No intertidal habitats are within spreading room in the coastal margin as they are unsuitable for public access on foot and will be excluded by direction.</p> <p>Along this stretch intertidal habitats comprise almost entirely of mudflats which contain little attraction for coast path users. They occupy a relatively thin zone hemmed in between the subtidal zone and the flood defences / thin bands of saltmarsh, other than in side channels and realignment areas where they are largely inaccessible.</p> <p>The only other intertidal habitat type noted as present along this stretch is an area of intertidal mixed sediments (gravelly mud) with associated biotic community located on the north bank of the Crouch upstream of Burnham. A few sections of the more gravelly foreshore here (such as at The Cliff SSSI) may be a little more attractive to coast path users – however no new access is proposed along this stretch and levels and patterns of use are not expected to increase or change significantly.</p>	No
Subtidal habitats	Trampling	If close to a coastal path, areas of this feature in the uppermost parts of the subtidal zone (so only submerged under a few cm of water during spring low tides) might be damaged by walkers or their dogs wading seaward of the trail.	<p>No appreciable risk. All areas of this feature lie below Mean Low Water and are therefore beyond the seaward limit of any increased access rights in the coastal margin.</p> <p>Along this stretch the subtidal zone does not contain any attraction for coast path users as it primarily occupies the</p>	No

			relatively narrow and steep sided main channel of the Crouch. This is bounded on either side by mostly thin bands of intertidal mud which are unsuitable for access on foot (so access will be excluded by direction).	
Vascular plant assemblage	Damage to species or habitats supporting assemblage species, caused by trampling or trail maintenance operations	If the Coast Path crosses habitats that support assemblage species, or such habitats are included within spreading room either side of the trail, then trampling by walkers could damage some species.	Low risk. The nationally scarce species in the plant assemblage of the Crouch and Roach Estuaries Ramsar site grow in a variety of coastal habitats including saltmarsh, intertidal flats, grazing marsh, seabanks, and the foldings immediately inland of them. These plant species vary considerably in their sensitivity to trampling and the likelihood of interaction with coast path users.	Yes
Vascular plant assemblage	Loss of supporting habitat through installation of access management infrastructure	The supporting habitats of the features may be permanently lost due to installation of new access management infrastructure.	Low risk. The level of risk is higher where there is a permanent and irreversible loss of the extent of supporting habitat which assemblage species depend on.	Yes
Invertebrate assemblage	Damage to habitats supporting assemblage species, caused by trampling or trail maintenance operations	If the Coast Path runs through habitats of particular importance for assemblage species, or such habitats are included within spreading room, then trampling by walkers or regular cutting to maintain the route may change the habitat structure or species composition and so cause local population declines of sensitive species.	Low risk. The invertebrates listed on Ramsar Information Sheets for the Crouch and Roach Estuaries Ramsar site are a mix of grazing marsh species, upper saltmarsh species, and more 'generalist' species found in a variety of coastal habitats.	Yes
Invertebrate assemblage	Loss of supporting habitat through installation of access management infrastructure	Areas of supporting habitats may be permanently lost due to installation of new access management infrastructure.	Low risk. The level of risk is higher where there is a permanent and irreversible loss of the extent of supporting habitat which assemblage species depend on.	Yes

Conclusion:

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

- Overwintering and passage waterbirds (dark-bellied brent goose; waterbird assemblage)
- Saltmarsh (Salicornia and other annuals colonising mud and sand; Atlantic salt meadows; Spartina swards; Mediterranean and thermo-Atlantic halophilous scrubs)
- Wetland plant assemblage
- Wetland invertebrate assemblage

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

- Offshore foraging waterbirds
- Intertidal habitats
- Subtidal habitats

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

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

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

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

Further to the risks identified as being significant alone (in C2.1), it is considered that there are no other residual and appreciable risks likely to arise from this project which have the potential to act in-combination with similar risks from other proposed plans or projects to also become significant. It has therefore been excluded, on the basis of objective information, that the project is likely to have a significant effect in-combination with other proposed plans or projects.

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:

- Offshore foraging waterbirds
- Intertidal habitats
- Subtidal habitats

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

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

Table 7. Scope of Appropriate Assessment

Environmental pressure	Qualifying Feature(s) affected *	Risk to Conservation Objectives
Disturbance of feeding or resting birds	<ul style="list-style-type: none"> <u>Overwintering and passage waterbirds</u>^{1,2} (dark-bellied brent goose^{1,2}; waterbird assemblages^{1,2}) 	Repeated disturbance to foraging or resting birds during winter and on passage, following changes in recreational activities as a result of the access proposal – and also through installation of access management infrastructure – may lead to reduced fitness and reduction in population and/or contraction in the distribution of qualifying features within the site.
Trampling, and cutting to maintain the trail	<ul style="list-style-type: none"> <u>Saltmarsh</u>³ (Salicornia and other annuals colonising mud and sand³; Atlantic salt meadows³; Spartina swards³) 	Repeated trampling, following changes in recreational activities as a result of the access proposal, may damage sensitive habitats, plant communities or species, leading to long-term

Environmental pressure	Qualifying Feature(s) affected *	Risk to Conservation Objectives
	<ul style="list-style-type: none"> • Wetland plant assemblages² • Wetland invertebrate assemblages² 	declines in their quality, distribution or numbers within the site. Types of possible effect include physical changes to habitats (for example through compaction of the substrate), shifts in the species composition of plant communities, and reductions in species' population size or distribution. Regular cutting could have similar effects on species that occur on or immediately adjacent to the trail.
Loss of feature extent or of species' supporting habitat through installation of access management infrastructure	<ul style="list-style-type: none"> • <u>Overwintering and passage waterbirds</u>² • Wetland plant assemblages² • Wetland invertebrate assemblages² 	The installation of access management infrastructure may lead to a permanent loss of extent within the site of habitats that are qualifying features themselves or support bird, plant or invertebrate species that are qualifying features.

Notes:

* Feature groups are underlined; at first mention, their relevant constituent features are listed in brackets.

¹ Crouch and Roach Estuaries SPA feature or feature group

² Crouch and Roach Estuaries Ramsar site feature or feature group

³ Essex Estuaries SAC feature or feature group

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

Non-breeding birds

One of the factors we take into account when developing proposals for the alignment of the England Coast Path is the potential for disturbance to waterbirds, particularly when the birds are qualifying features of coastal SPAs and Ramsar sites. This is clearly an important consideration on this stretch of the Coast Path which runs close to the boundary of the Crouch and Roach Estuaries SPA, which has a non-breeding waterbird assemblage and dark-bellied brent goose as qualifying features. The conservation advice for the SPA gives all non-breeding bird features 'maintain' (rather than 'restore') targets for population size, as numbers have not declined significantly since site classification and in some cases have increased, and there is no evidence of declines that do not mirror broader trends at a regional or national level, indicative of a site-specific problem.

In comparison with some other nearby SPAs along the Essex coast, birds using the Crouch and Roach Estuaries SPA are potentially more susceptible to disturbance as both estuaries are quite narrow, so an appreciable proportion of the intertidal mudflats and saltmarsh used by waterbirds are quite close to seabanks with current or potential public access. Restricting disturbance at major high tide

roosts is particularly important, especially if there are no suitable alternative roost sites nearby, because these roosts are used by large numbers of birds 'commuting' to and from much larger foraging areas.

Important roost sites and feeding areas in the Crouch and Roach Estuaries SPA along this Coast Path stretch include the large areas of saltmarsh at Brandy Hole, North Fambridge and Bridgemarsh Island, along with associated intertidal mudflats (feeding areas). Also important are the large areas of grazing marsh at Marsh Farm Country Park, the area west of Stow Creek, at Blue House Farm, and around Lower Raypits.

Functionally linked land (supporting habitat lying outside SPA boundaries) is important for several species, especially brent geese. Historically, most brent geese fed on eelgrass (*Zostera* spp.), saltmarsh plants and green marine algae on intertidal mud. However, there has been a widespread decline in eelgrass and dark-bellied brent geese now appear to be largely dependent on winter wheat and barley, oil seed rape, grass fields and amenity grasslands. The SPA on this stretch includes some grazing marsh and improved grassland for brent geese but winter cereal fields beyond their boundaries are important feeding areas, particularly in late winter when food resources in the intertidal zone are depleted [Ref 2].

SAC habitats and Ramsar site wetland plant and invertebrate assemblages

The intertidal features of the Essex Estuaries SAC and the nationally scarce plants in the Ramsar wetland plant assemblage show some overlap in their sensitivities to coastal access. Several assemblage species are saltmarsh plants typically found in H1330 Atlantic salt meadows, which form a substantial part of the coastal margin. Most of these are mainly found in upper/mid zone saltmarsh, sometimes within a few metres of seabanks. As a result of sea level rise and coastal squeeze some now grow on the seaward slopes of sea defences. All these plant assemblage species and the SAC habitat features they are found in are sensitive to trampling.

Several other species in the wetland plant assemblages cannot tolerate regular flooding with sea water and so are mainly restricted to areas inland of seabanks. Most require brackish, relatively open ground. They are often found on the foldings behind seabanks or on their landward slopes, particularly where there is some seepage through the sea defences. These species benefit from some ground disturbance (for example by livestock or farm vehicles) to create bare patches and they can tolerate some trampling. Other assemblage species are mainly found further inland on brackish grazing marshes or in their ditch systems.

The various habitats found within the Crouch all have significant invertebrate interest, with the brackish marsh and salt marsh especially important in a national context. These marshes are home to a highly specialised invertebrate fauna, several of which are listed in the Red Data Books; the Ground Lackey moth *Malacosoma castrensis*, the large horsefly *Hybomitra expollicata* and the beetle *Malachius vulneratus* are a few examples. In addition, within the brackish creeks, ditches and borrow dykes, the shorefly *Parydroptera disco-myzina* and the soldierfly *Stratiomys singularior* have been recorded. Habitat requirements for the invertebrate assemblage include a diverse surface topography of vegetation types, poached areas or exposed margins of ditches / borrowdykes, ditches with fairly shallow water, small areas of poaching in wet grassland element with water filled hoof prints and bare wet mud, complex structures of submerged vegetation (where appropriate), "beach" areas of bare wet sediment, emergents with abundant flowers, and salinity gradients [Ref 2].

The sensitivities of the invertebrate assemblage to access pressures would largely arise from impacts to the supporting habitat requirements rather than directly to the invertebrates themselves, thus the more sensitive habitats would in general have more sensitivity for those invertebrates associated with them, though any proposal that potentially damaged, homogenised or reduced the quality of supporting habitat may have an impact.

Current levels of use

Current levels and patterns of public use can have an important influence on the potential effects of Coast Path alignment options on qualifying features, particularly in relation to bird disturbance. There are marked differences in public use within and between the six lengths of this stretch. From our site visits and Strava heatmaps², use of the existing coastal footpaths appears to be generally light to moderate and related to access points, proximity of conurbations and the availability of short circular routes. Usage is more concentrated near to the settlements of South Woodham Ferrers, Hullbridge, Burnham-on-Crouch, North Fambridge and (to a lesser extent) South Fambridge.

Housing growth and the Essex RAMS

The emerging Local Plans for Rochford District, Maldon District, Chelmsford District and several other Essex planning authorities covering areas on or close to the coast are at early stages of development. These plans include targets for new housing that would substantially increase the population living within easy reach of the coast over the next 20 years. Recognising that this population increase has the potential to adversely affect the county's internationally designated coastal sites (SPA, SAC and Ramsar sites) 11 Essex planning authorities have entered into partnership to develop and implement an Essex Coast Recreational disturbance Avoidance & Mitigation Strategy (Essex RAMS). This aims to deliver the mitigation necessary to avoid significant adverse effects from 'in-combination' impacts of the residential development that is anticipated across Essex; thus protecting SPAs, SACs and Ramsar sites on the Essex coast from adverse effects on site integrity. The RAMS identifies a detailed programme of strategic mitigation measures which are to be funded by developer contributions from residential development schemes. All new residential developments within evidenced Zones of Influence (ZoIs) of the coastal sites (based on visitor survey data) and where there is a net increase in dwelling numbers are included. Taken together, the 11 authorities are aiming to deliver approximately 80,000 new homes in the next 20 years according to growth set out in their current and emerging Local Plans. This will potentially result in around 190,000 new residents in their combined area (based on a 2.4 person per household average household occupancy) between 2018 and 2038 – the end of the current period of the Essex RAMS [Ref 14].

Participating planning authorities are expected to adopt Supplementary Planning Documents in 2019 to deliver the Essex RAMS. In November 2017 Natural England provided written advice to them that until the implementation phase of the RAMS, an interim protocol should be followed to ensure consistency and fairness in securing strategic level mitigation for new housing developments within ZoIs. Recommended elements of this protocol include: (i) collection of appropriate funding for strategic mitigation measures, proportionate to the level of housing development; (ii) a delivery

² Strava is a website and mobile app used to track running, cycling and other sports activities via GPS. Users upload workouts and the logged activities include route data. The accumulated information is collated to produce a global 'heatmap' which provides a qualitative, graphical summary of how often routes in an area are used. The large majority of Strava users on foot are likely to be runners rather than walkers, so heatmaps cannot be taken as an accurate guide to patterns of use by typical coastal path users. Nevertheless, from comparisons with our observations during site visits, they can be useful as a rough indication of relative levels of use.

mechanism for these measures and their implementation prior to first occupation of the dwellings; and (iii) a policy in emerging Local Plans setting out how likely recreational disturbance impacts from new residential development will be mitigated, which should include a policy commitment to the production and implementation of the Essex RAMS. In August 2018 Natural England provided further interim advice, including information on revised Zols agreed by the RAMS Steering Group and, for larger scale residential developments falling within Zols, recommendations on appropriate and proportionate measures within the development site - such as high quality green infrastructure with provision for dog walking - to reduce recreational disturbance on European sites nearby.

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 majority of the stretch between Wallasea Island and Burnham-on-Crouch follows existing rights of way where only a small increase or change in levels and patterns of use is predicted as a result of the coastal access proposals. In addition to this access to almost all of the sensitive saltmarsh and intertidal mud habitats will be excluded by direction for reasons other than nature conservation (as they are unsuitable for access on foot). Consequently along much of the stretch it is considered there would be no appreciable risk to designated features arising from these proposals. However, in order to identify any specific locations where there *is* a potential risk of more significant impacts and also to provide robust justification for the remainder of the stretch an overview of each section of the stretch will be given later in this section to cover current/predicted usage and likely interaction with designated features. Note that potential minor losses of habitat from installation of coast path infrastructure will be considered across the whole stretch.

Firstly an overview of the potential sensitivities of the designated features to the coastal access proposals will be given.

Risks to overwintering and passage waterbirds

The key nature conservation issue for this stretch of the Coast Path is the protection of non-breeding waterbirds, which occur along the majority of the stretch during the winter and the spring and autumn migration periods. When considering the potential for increased disturbance to birds we

focussed attention on: (i) parts of the stretch where we predict appreciable changes in levels of public use as a result of our proposals; and (ii) sensitive locations likely to hold concentrations of birds, such as high tide roost sites and important feeding areas, either within or outside SPA boundaries.

To assess likely sensitive locations, we used BTO WeBS data [Ref 3], observations during site visits, and information compiled by Panter and Liley [Ref 4] or provided to us by the site Responsible Officer for the site. To identify parts of the stretch where at least a moderate increase in levels of use appears to be likely we used our own observations, on-line mapping and aerial photography, Strava heatmaps, and information provided by the Responsible Officer.

Any increase in levels of public use near areas where birds are feeding or resting may produce some increase in bird disturbance. This can vary from occasional, short-term, 'low cost' events affecting a few birds (for example increased alertness and a small reduction in feeding rates lasting a few minutes) to major disruption on a regular basis (such as large flocks abandoning a key roost site or feeding area and flying several kilometres to the nearest alternative site).

When assessing whether increases in bird disturbance at a particular location require changes to route alignment or other mitigation measures to ensure there is no adverse effect on site integrity, we have followed the principle that 'significant' disturbance - as defined by the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) and used in Natural England's supplementary advice on the conservation objectives for marine SPAs - must be avoided. The definition is: "Disturbance should be judged as significant if an action (alone or in combination with other effects) impacts on (water)birds in such a way as to be likely to cause impacts on populations of a species through either: (i) changed local distribution on a continuing basis; and/or (ii) changed local abundance on a sustained basis; and/or (iii) the reduction of ability of any significant group of birds to survive, breed, or rear their young."

The potential for bird disturbance is reduced on this stretch because nearly all the intertidal flats and saltmarshes in the coastal margin are unsuitable for public access on foot, so they will be excluded from new coastal access rights on grounds unrelated to nature conservation. Also the usage of the proposed route / existing routes is likely to be generally lower during the winter months when the majority of the overwintering and passage bird features are present. The relative narrowness of much of the Crouch's main channel and its intertidal mudflats does however mean birds may use areas close to existing rights of way / the proposed route along much of the stretch, which increases the importance of key larger areas of saltmarsh and mud within side channels and realignment areas.

Risks to non-avian qualifying features

The non-avian qualifying features on this stretch considered here (saltmarsh and wetland plant and invertebrate assemblages) are generally much less susceptible to adverse effects from Coast Path proposals than the birds. This is because new coastal access rights will not apply to a very large proportion of the area supporting them (for the reasons given above) and, unlike birds, these features are not susceptible to 'disturbance from a distance'. Any new or significantly increased areas of access that potentially brought coast path users into direct interaction with these features would however need consideration.

Installation of access management infrastructure

We have also considered the extent to which the installation of access management infrastructure on this stretch may result in loss of habitats that are SAC qualifying features and/or support species that are SPA or Ramsar site features.

Our proposals involve the installation of the following new infrastructure items along the stretch: 3 pedestrian gates, 18 multi finger posts, 53 simple waymark posts, 2 single finger posts, and 2 step stiles. We estimate the total 'footprint' of these items to be roughly 20 m².

These items will be on the seabanks when on the edge of or within protected sites, or otherwise entirely away from protected sites. Unlike saltmarsh, these are not SAC habitats and are not listed in SPA conservation advice as supporting habitat for waterbirds. Birds may occasionally use seabanks to roost but normally prefer the outer edges of saltmarsh, where the risks of disturbance and predation are lower. The infrastructure we propose for seabanks will not be within known roost sites. Some species in the wetland plant and invertebrate assemblages are found on seabanks or foldings, though the seabank crest is less important for them than the folding. On both, assemblage plant species have very sparse, scattered distributions. A pre-works check of proposed infrastructure locations, and adjustment where necessary, will minimise the risk of any damage.

Overview of sections along the stretch and sensitivity to impacts from the coastal access proposals

Wallasea Island / Lion Creek to South Fambridge

This section follows existing rights of way along the sea wall for its entire length. On the seaward side the route is adjacent to mostly thin strips of saltmarsh and intertidal mud, except for a larger area of saltmarsh at Lion Creek and a larger bay of intertidal mud near Upper Raypits Farm. On the landward side beyond the limits of coastal access proposals the route is adjacent to large areas of grazing marsh and arable farmland (though mostly separated from it by the borrowdyke), much of which appears likely to be functionally-linked land.

There are no sensitive locations along this section where the coast path proposals are expected to have any significant effect on designated features. The increase in use beyond the baseline is predicted to be low as is the potential for increased interaction with the features concerned. Birds using the expanses of grazing marsh and arable land beyond the borrowdyke (and the scope of coastal access rights) are very unlikely to be disturbed by coast path users, and significant numbers of birds would not be expected to be utilising the thin strip of mud and saltmarsh along this stretch at any one time. Areas of saltmarsh and grazing marsh at Lion Creek and Lower Raypits Farm are within N2K boundaries and managed by Essex Wildlife Trust, who manage visitors and restrict dog access to the right of way on the sea wall.

South Fambridge to Hullbridge

In this section the segment from South Fambridge to the northeast point of Brandy Hole is essentially a similar continuation from the previous section along the existing right of way on the sea wall, and as such can be considered to have no particular sensitivities. The next segment of this section around the large area of saltmarsh at Brandy Hole contains proposals for areas of new public access, and this location will thus be considered in more detail in **D3.2A**. From the northwest of Brandy Hole the last segment of this section follows the existing and well used right of way into Hullbridge, with a largely narrow band of intertidal mud seaward of the hard sea bank and an

increasingly built up area landward of the route - no particular sensitivities are thus identified in this segment.

Hullbridge to Battlesbridge

This short section largely follows existing rights of way, apart from a segment near Battlesbridge where the proposed route follows a short section of seawall, a field edge and a road. There are no significant interactions with N2K features along this segment, and the short line of new access is within site of the existing access as it follows a curve in the estuary so there is no appreciable risk of 'new' disturbance being created here.

Near to Hullbridge the right of way and the proposed route diverts briefly inland to cross a spur of land adjacent to a loop in the estuary channel. There is however evidence that regardless of this the sea wall is used locally for access. There are no particular sensitivities identified at this location.

Battlesbridge to South Woodham Ferrers

This section – the furthest inland from the open coast - follows an existing right of way out of Battlesbridge which initially follows the sea wall on the north bank of the Crouch then veers abruptly northwest away from the estuary (and a large wedge of saltmarsh). The route then follows a new stretch of proposed public access between the railway and the bypass northeast until it again follows existing public access from Tabrum's Lane continuing alongside the railway. The route diverts south on existing public access through Woodham Fen (an Essex Wildlife Trust reserve) and follows the sea bank alongside Fen Creek, with the conurbation of South Woodham Ferrers on the landward side, until it re-joins the main channel of the Crouch at Marsh Farm Country Park.

No sensitive locations are identified along this section. New access is located inland well away from protected sites, and elsewhere the route follows existing rights of way near to conurbations where an increase in use from the proposals would be minimal. Woodham Fen contains an increasing rare upper saltmarsh / grassland transition, though this site is managed by Essex Wildlife Trust, is already Open Access land and is adjacent to the conurbation of South Woodham Ferrers and access is thus already well used – the coast path proposals would be unlikely to increase use of this site to any significant degree.

South Woodham Ferrers to North Fambridge

This section follows existing rights of way and roads/tracks for almost its entire length, except for a location northwest of North Fambridge where a stretch of new access is proposed around three fields to link the track / right of way near Little Hayes Farm with the trackway at Skinner's Wick and Upper Grooms Farm. These fields may be of minor importance as functionally linked land though they are something of an outlier from key areas of grazing marsh and saltmarsh being located on the northern side of the railway outside of the SPA / Ramsar. The proposed new access would be on the other side of fences and ditches (and a small wood) from the fields which would negate any small disturbance risk from dogs. It is considered therefore there is no appreciable risk to integrity of features from this stretch of new access.

Between South Woodham Ferrers and the above location the route follows the existing right of way along the sea wall all the way up to the railway, then follows a short section of track beyond the railway. The existing route along the seawall here is largely isolated from important areas of grazing marsh inland by the near continuous borrowdyke. Current usage near South Woodham Ferrers is higher than along more remote stretches - at the adjacent Marsh Farm Country Park access is

managed by Essex County Council with a series of trails concentrating most visitors away from more sensitive areas.

The route continues from Marsh Farm Country Park around Clementsgreen Creek to Stow Creek. The existing right of way / proposed route is again largely separated from grazing marsh by the borrowdyke, and at Stow Creek is on the opposite bank from the large areas of saltmarsh near North Fambridge. Beyond the new stretch of access (discussed above) the trail follows inland roads and rights of way into North Fambridge and subsequently re-joins the main channel of the Crouch, again avoiding this key area of saltmarsh. The route alignment inland of the railway is proposed as access seaward of the railway line past the saltmarsh is considered too dangerous to be feasible – thus this area of saltmarsh is already avoided for reasons other than nature conservation. There are not considered to be any sensitive locations along this section.

North Fambridge to Burnham-on-Crouch

This section follows existing rights of way for its entire length, largely along the sea wall except where it passes over some higher ground or diverts briefly inland. On the seaward side the route is adjacent to mostly thin strips of saltmarsh along with areas of intertidal mud which are relatively larger in size in bays near North Fambridge / between the shore and Bridgemarsh Island, and in a narrower band between Bridgemarsh Island and Burnham-on-Crouch. On the landward side beyond the limits of coastal access proposals the route is adjacent to large areas of grazing marsh and arable farmland (though mostly separated from it by the borrowdyke), some of which is SPA / Ramsar, with other areas likely to be functionally-linked land.

There are no sensitive locations identified along this section where the coast path proposals are expected to have any significant effect on designated features. The increase in use beyond the baseline is predicted to be low, as is the potential for increased interaction with the features concerned. Birds using the expanses of grazing marsh and arable land beyond the borrowdyke (and the scope of coastal access rights) are very unlikely to be disturbed by coast path users, and large areas of grazing marsh at Blue House Farm (within the SPA / Ramsar) are managed specifically for bird features by Essex Wildlife Trust, who manage visitors and restrict dog access to the right of way on the sea wall. Significant numbers of birds would not be expected to be utilising the thinner strips of mud and saltmarsh along this stretch at any one time, and the larger expanses of (offshore) saltmarsh and mud habitat on and around Bridgemarsh Island (which is managed by wildfowlers) are inaccessible to coast path users.

Summary of overview

The proposed route from Wallasea Island to Burnham-on-Crouch follows existing rights of way for the vast majority of its length. Current usage is focussed near to conurbations, whereas large stretches of existing access away from population centres are quite remote and much less used. Only a very small increase in usage is expected along all of the stretch that uses existing access, with patterns of use remaining largely the same and focussed near conurbations. Usage along the existing routes is likely to remain generally lower during the winter months when the majority of the overwintering and passage bird features are present. Therefore along nearly all of the stretch there is not considered to be an appreciable risk to designated features arising from the coast path proposals.

There is only one section of proposed new access (at Brandy Hole) that may impact on designated features – this is considered further in D3.2. The others sections of proposed new access have either an inconsequential level of interaction with designated features or no likely interaction at all. Therefore along the whole stretch of the proposed route (aside from that at Brandy Hole) it can be concluded there is no appreciable risk to designated features.

It can furthermore be reiterated that proposed installation of coast path infrastructure along the route is minimal, and is located largely along the seawall / folding on the boundary of designated sites or further inland away from designated sites.

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

In this part of the assessment we consider any key location along the coast between Wallasea Island and Burnham-on-Crouch where establishing the England Coast Path and associated coastal access rights might impact on Qualifying Features of a European site. We assess the possible risks and explain how the detailed design of our proposals avoids or otherwise takes account of them.

D3.2A Brandy Hole

I) Baseline situation

The location being considered here is a large area of saltmarsh referred to as 'Brandy Hole', although the location on OS maps with the placename Brandy Hole occurs just to the west of this. See maps in Appendices.

Brandy Hole comprises a large irregularly shaped area of saltmarsh on the south bank of the Crouch between South Fambridge and Hullbridge. It was largely formed by historical breaches of former sea walls, although it was extended further in recent decades through managed realignment. Essex Estuaries SAC covers the previous extent of the saltmarsh, whereas Crouch and Roach Estuaries SPA, Ramsar and SSSI cover the whole area including the extended saltmarsh and areas of upper marsh / transitional habitats, grassland and reed pools (these all fall within SSSI unit 59 which was added at re-notification as of November 2017). The upper marsh / transitional areas occupy relatively gently sloping ground along some of the western and southern fringes of the saltmarsh, although most of the saltmarsh elsewhere within Brandy Hole sharply abuts seawalls and the steeper edges of agricultural land and shows little transition from what can broadly be classed as mid-saltmarsh communities (as is more typical elsewhere in the Crouch).

The large area of saltmarsh and its network of muddy creeks and channels is an important roosting and feeding site within the Crouch for SPA / Ramsar birds. The saltmarsh itself mostly comprises SAC feature Atlantic salt meadows with other saltmarsh features as lesser components. There are recent records [Ref 5] of some Ramsar vascular plant assemblage species within the area including both saltmarsh and seabank/grassland species, though opportunities for the latter (especially annuals) appear limited in large areas due to an apparent lack of suitable management.

Areas of the saltmarsh are used and managed by a wildfowling group who have a Higher Level Stewardship (HLS) agreement on the western side of Brandy Hole, although areas of grassland and upper marsh within this agreement appear to receive minimal management. Elsewhere some seawalls (including sections of existing PROW) and areas of transition / rough grass appear unmanaged and are dominated by a dense sward of sea couch, with patches of encroaching scrub. By contrast the seawall further along the eastern edge of Brandy Hole is managed with grass cutting by the Environment Agency.

Brandy Hole is crossed by existing PROWs that join up to run north-south and east-west, though due to the historical breaches of the seawalls and the development of the saltmarsh these routes are impossible to follow in their entirety and are largely defunct. A stretch of PROW that extends east from Hullbridge to the end of a peninsular of saltmarsh is however used regularly by locals for recreation and dog walking. Elsewhere around Brandy Hole there is evidence (from observations on site and from Strava) of low level informal local access taking place, such as along the seawall on the eastern edge and around the existing PROW by the southern edge.

II) Detailed design features of the access proposal

The proposed alignment for the coast path is described here as overall heading due west around Brandy Hole between South Fambridge and Hullbridge.

After following the sea wall west from South Fambridge the existing historical PROW continues west from a promontory of land out across the salt marsh – the proposed route instead diverts south here to follow the sea wall (currently without access rights beyond this point) , and continues south, then west, then south along the eastern edge of Brandy Hole until it reaches its southern edge (the sea wall largely disappears further south here as the route heads south and follows the edge of arable farmland where it borders the saltmarsh).

From here the route heads west again along a sea wall and then briefly follows an existing PROW before diverting west again between the edge of arable land and an area of rough grassland / scrub. It then heads north-west along a bund / sea wall with saltmarsh to the northeast and rough grassland / marsh to the southwest. At the end of the bund the route then follows the landward side of a hedge and fenceline roughly north then west around the edge of an arable field. It then diverts north along a short stretch of sea wall where it then re-joins the existing PROW that continues west into Hullbridge.

Waymarkers along the stretch and a fingerpost along the southern edge are proposed to clarify the route for walkers. Signage to inform coast path users of the S25a access restriction on the saltmarsh and mudflat is proposed along the bund and the seawall (elsewhere?) where the route is in immediate proximity to saltmarsh.

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

Overwintering and passage waterbirds

Proposals for new stretches of access could pose a significant risk to bird features using the saltmarsh for feeding and roosting if they regularly brought walkers / dogs within visual and audible proximity of the birds at levels / distances likely to cause disturbance. At Brandy Hole however the proposed route appears unlikely to do this, largely as the saltmarsh covers a significant area and is mostly inaccessible to walkers, thereby giving feeding and roosting birds sufficient separation from walkers and dogs.

On the eastern side (already used informally by locals) the seawall is largely separated from the saltmarsh by a wide, deep creek. On the western side walkers and dogs would be separated and screened from the saltmarsh and areas of grassland / transition habitat by both a hedge and a fence. On the southern side walkers are largely separated from the saltmarsh by a wide creek and areas of rough grassland.

The bund in the southwest corner is in direct contact with an open area of saltmarsh, though signage will point out the S25a access restriction, and anyone venturing beyond this would soon encounter

the network of creeks and would be unlikely to progress much further without local knowledge of the site. This relatively small corner of the site is not considered to be of key importance to bird features which generally favour the larger and remoter areas of the saltmarsh. Thought was given to whether areas such as this might increase in importance on particularly high tides (which would drive birds off most of the saltmarsh into the upper reaches), though again this was not considered to be of significance here as birds appear more likely to head north across the Crouch (Charlie Williams, pers obs), use higher 'islands' of fragmented old sea wall, retreat to large areas of surrounding agricultural land, or use the large area of grassland / transitional habitat on the west side of Brandy Hole (the wildfowler's fenced off HLS land) that cannot be readily accessed by walkers or dogs.

It should also be noted that for almost all of the proposed route around Brandy Hole the risk of disturbance through visual 'skylining' appears minimal as the surrounding land generally rises up sufficiently to screen the effects of an silhouettes caused by walkers. Furthermore, by providing a maintained access route around Brandy Hole this could draw some local use away from the remnant sections of PROW that run partway into the saltmarsh. Usage of this new stretch is moreover not predicted to be high as it does not provide a new local circular route, with path use expected to remain concentrated nearer to Hullbridge and South Fambridge.

Saltmarsh

As described above, the potential for coast path users to directly access the saltmarsh of Brandy Hole is quite limited, with the proposed route being separated from the vast majority of the saltmarsh area (and some of the grassland / transitional areas) by generally wide creeks to the east and southeast and a fence and hedge line in the west. Areas of rough grass and scrub to the south also serve to separate coast path users from the saltmarsh.

The bund in the southwest corner of Brandy Hole is the only location where the route directly borders a large open area of saltmarsh. Coast path users will be directed by signs and a clearly maintained route along the bund, and will be discouraged from accessing the saltmarsh with signage to inform them of the S25a restriction. It is very unlikely users would be attracted to venture out onto the saltmarsh here as there is nothing to obviously head for (the river is not visible from here being at least some 700 metres away), and even if attempted it is difficult to get more than 100m out beyond the network of creeks.

The proposed new access here does not bring coast path users into direct contact with saltmarsh habitats or encourage them out onto the saltmarsh, and is unlikely to pose any significant risk to saltmarsh features.

Vascular plant and invertebrate assemblages

For plants and invertebrates from the assemblages associated with saltmarsh and transitional habitats it can be concluded that there is no appreciable risk. As outlined above the route does not pass through these habitats, and access to them is restricted and/or rendered unlikely by physical obstacles and no obvious attraction of these areas to coast path users.

For plants and invertebrates from the assemblages associated with seawalls / foldings and associated ditches, pools and grassland areas, it is not considered there is any appreciable risk to these features arising from the proposals. The route and its infrastructure (comprising just a small number of signs / waymarkers) does not cause any damage to any existing grassland supporting habitat in good condition, and there is no direct interaction with ditches and pools (and it is unlikely that those adjacent to the route would attract coast path users). Additionally, the introduction of

some cutting to define the trail and some light to moderate trampling would help to diversify areas along the route currently dominated by dense sea couch, and potentially open up more habitat niches that may be used by assemblage species.

Conclusion

Taking into account a number of factors such as the minimal opportunities for or likelihood of interaction of coast path users with key habitats, the already in-built access restrictions on saltmarsh and mudflat for public safety, the scale of the saltmarsh and likely distances of bird features from the proposed route, the usage of the site by birds as part of the wider landscape, the current lack of suitable habitat conditions for seawall grassland / transition plant and invertebrate assemblage species along the route, and the expected low to moderate usage of the route (and this being lower during the key winter months), it has been concluded that the proposed route around Brandy Hole contains no appreciable risk to overwintering and passage waterbirds, saltmarsh, or vascular plant and invertebrate assemblage species.

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

As no appreciable risks to site integrity have been identified along the stretch as a whole and along the proposed new access at Brandy Hole – the potential for risk being already reduced by inherent design features – then there is no proposed mitigation required for nature conservation.

After considering the proposals in more detail it has been concluded that the proposed route between Wallasea Island and Burnham-on-Crouch contains no appreciable risk to overwintering and passage waterbirds, saltmarsh, or vascular plant and invertebrate assemblage species. If any unforeseen impacts do become evident in the future then the route would be re-assessed and means of avoidance / mitigation can be considered.

Conclusion:

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

- Disturbance of feeding or resting birds
- Trampling, and cutting to maintain the trail
- Loss of feature extent or of species' supporting habitat through installation of access management infrastructure

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

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

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

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 been wholly avoided by the incorporated or additional mitigation measures outlined in section D3. It is therefore considered that there are no residual and appreciable effects likely to arise from this project which have the potential to act in-combination with those from other proposed plans or projects. It has therefore been excluded, on the basis of objective information, that the project can have an adverse effect on site integrity in-combination with other proposed plans or projects.

D5. Conclusions on Site Integrity

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

Natural England has concluded that:

It can be ascertained, in view of site conservation objectives, that the access proposal (taking into account any incorporated avoidance and mitigation measures) will not have an adverse effect on the integrity of Outer Thames Estuary Special Protection Area (SPA), Crouch and Roach Estuaries SPA / Ramsar site and Essex Estuaries Special Area of Conservation (SAC) either alone or in combination with other plans and projects.

PART E: Permission decision with respect to European Sites

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

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

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

Certification

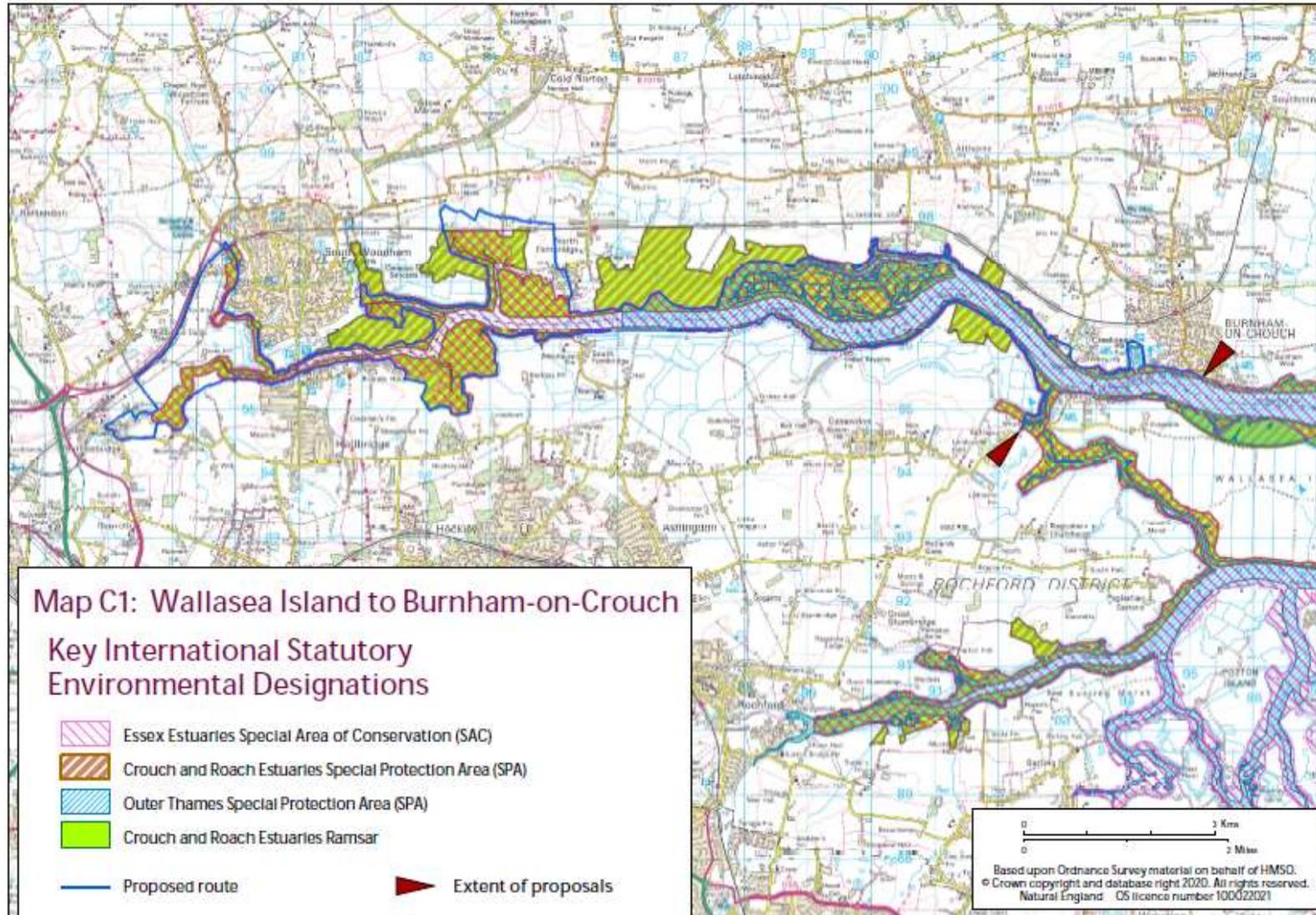
Assessment prepared by:	Dan Pedley	<i>Lead Adviser – Coast Path Assessment Unit</i>
Date:	16/12/2019	
HRA approved by:	John Torlesse pp 	<i>Senior officer with responsibility for protected sites</i>
Date:	15 January 2020	

References to evidence

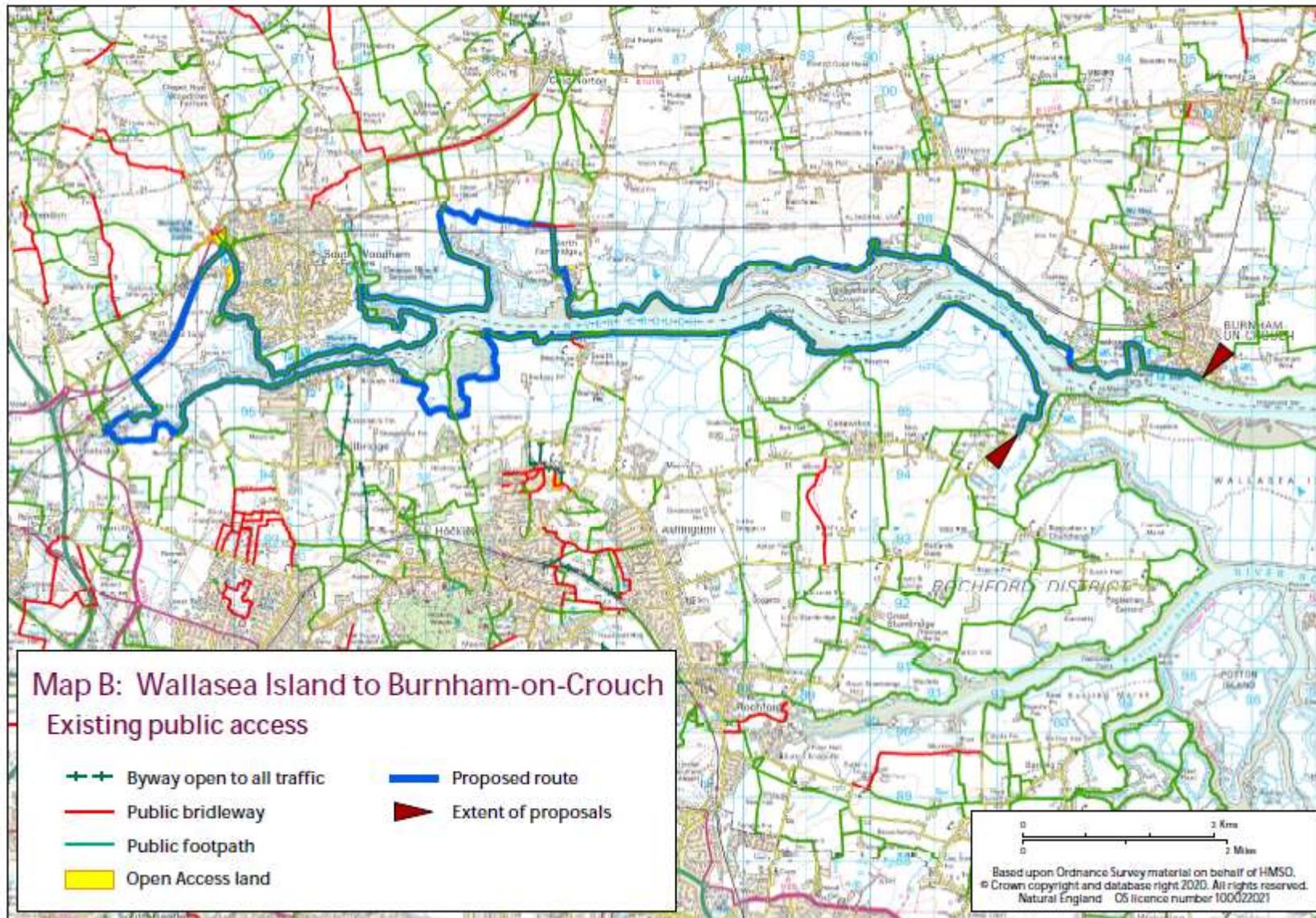
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Appendices

Map 1: Overview of stretch and international designated sites



Map 2: Overview of stretch, proposed route and existing access

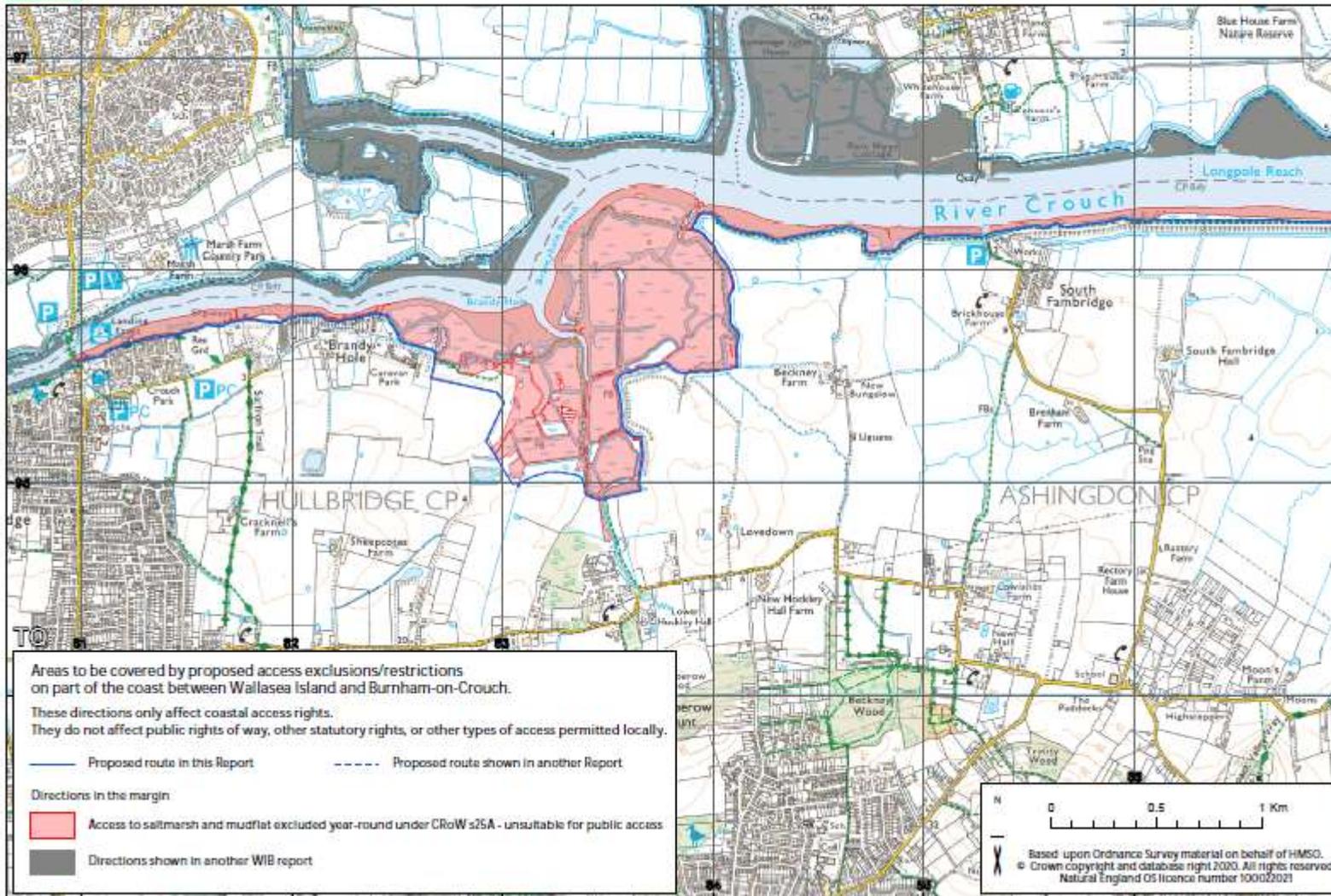


Map 3: Overview of proposed route, existing access and restrictions at Brandy Hole (see D3.2A)
 (Add WIB Map E1b)



Coastal Access - Wallasea Island to Burnham-on-Crouch - Natural England's Proposals

Map WIB E1b: Directions to exclude/restrict access - as proposed for area covered by Report WIB 1



Map WIB E1b: Directions to exclude/restrict access - as proposed for area covered by Report WIB 1

Map 4: Aerial view of Brandy Hole saltmarsh.

Blue = existing access; Yellow = proposed new access, Green = proposed route along existing access.

