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Habitats Regulations Assessment of England Coast Path proposals for **Mersea Island** on the:

Colne Estuary (Mid-Essex Coast Phase 2) Special Protection Area and Ramsar site, Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area and Ramsar site and Essex Estuaries Special Area of Conservation

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I) Introduction

This is a record of the Habitats Regulations Assessment ('HRA') undertaken by Natural England, on behalf of the Secretary of State 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 for Mersea Island on the following sites of international importance for wildlife: Colne Estuary (Mid-Essex Coast Phase 2) Special Protection Area and Ramsar site, Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area and Ramsar site and Essex Estuaries Special Area of Conservation.

England Coast Path proposals are within scope of a European Court judgment which was handed down in April 2018. Known colloquially as People over Wind, the judgment clarified how the impact of proposals on European protected sites is to be assessed. As a consequence, Natural England has reviewed the HRA previously undertaken and provided this updated HRA to the Secretary of State, to consider alongside the previously made proposals. This revised and updated version of HRA replaces the HRA element of the previously published Access and Sensitive Features Appraisal.

This assessment should be read alongside Natural England's related Coastal Access Report published on 28 June 2017 which fully describes and explains the access proposals for this stretch. The Overview explains common principles and background and the chapters explain how we propose to implement coastal access along each of the constituent lengths within the stretch. The published Access and Sensitive Features Appraisal (ASFA) also considered environmental aspects in detail (both European sites and SSSIs) but preceded the 'People over Wind' judgement.

https://www.gov.uk/government/publications/england-coast-path-on-mersea-island-comment-on-proposals

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. Main wildlife interests

Interest	Description
Non-breeding waterbirds	During the winter months, the Blackwater and Colne estuaries support an internationally recognised population of non-breeding waterbirds. The extensive areas of soft mud exposed at low tide, as well as grazing marshes, arable fields and grassland are the main

Interest	Description
	feeding areas. These protected birds also need suitable undisturbed places to roost at high tide.
Breeding waterbirds	The Blackwater and Colne estuaries are recognised for the following breeding waterbirds: pochard, little tern and ringed plover. These breeding waterbirds require suitable nesting habitats coupled with low disturbance levels to prevent egg abandonment, chilling and predation, plus safe areas for successful fledging.
Assemblages of wetland plants and invertebrates	The Blackwater and Colne estuaries' Ramsar sites support 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 sand/shingle and the borrow dykes and foldings (flat grass areas between the sea wall and borrow dyke) behind sea defences.
Saltmarsh and other intertidal and subtidal habitats	The Essex Estuaries SAC site cover a diversity of intertidal and subtidal habitats. These are of considerable importance in their own right and as essential supporting habitat for the SPAs and other wildlife. The extensive and diverse saltmarsh habitat is a qualifying feature of the Blackwater and Colne estuaries Ramsar sites, as well as the SAC. Other SAC features include extensive mudflats and sandflats and the Mediterranean and thermo-Atlantic halophilous scrubs.

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 the Coastal Access Scheme [1]. Note that, following a ruling by the Court of Justice of the European Union (Case C-323/17 – usually cited as People over Wind), we have issued a technical memorandum [2] concerning the application of this methodology where assessment under the Habitats Regulations is required.

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.

As part of updating this HRA, Natural England has contacted relevant stakeholders and interests to ask whether they are aware of any new substantive data or evidence relating to the European site conservation objectives that has become available since the proposals were submitted to Secretary of State and which might have a bearing on reviewing the HRA.

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 detailed local proposals have been to:

- 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, to develop proposals that take account of risks to sensitive nature conservation features and incorporate mitigation as necessary in our proposals
- to clarify when, where and how people may access the foreshore and other parts of the coastal margin on foot for recreational purposes
- to work with local partners to design detailed proposals that take account of and complement efforts to manage access in sensitive locations
- where practical, to incorporate opportunities to raise awareness of the importance of this stretch of coast for wildlife and how people can help efforts to protect it.

V) Conclusion

We have considered whether our detailed proposals for coastal access at Mersea Island might have an impact on the Colne Estuary (Mid-Essex Coast Phase 2) Special Protection Area and Ramsar site, Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area and Ramsar site and Essex Estuaries Special Area of Conservation. 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 some of 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 any of these sites. These measures are summarised in Table 2 below.

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

Risk to conservation objectives	Relevant design features of the access proposals
Disturbance of non-breeding waterbirds from recreational activities	■ A carefully aligned and well-maintained path that avoids more sensitive areas and enables people to enjoy and appreciate wildlife without adding to disturbance pressure over the site. ■ Restriction or exclusion of Coastal Access Rights where there is a risk of increased recreational activity in sensitive areas. ■ Additional measures including existing, new or replacement educational notices where necessary.
Disturbance of breeding waterbirds (terns and ringed plover) from recreational activities	■ A carefully aligned and well-maintained path that avoids more sensitive areas and enables people to enjoy and appreciate wildlife without adding to disturbance pressure over the site. ■ Restriction or exclusion of Coastal Access Rights where there is a risk of increased recreational activity in sensitive areas. ■ Additional measures including existing, new or replacement educational notices where necessary.
Disturbance of non-breeding waterbirds and breeding terns and ringed plover from construction works	■ Design, timing, and methods of construction to cause minimal disturbance. ■ Careful siting along existing well used routes or utilising existing manmade structures to avoid sensitive areas.
Damage to coastal habitats and associated rare wetland invertebrate or plant species following changes in access	■ A carefully aligned and well-maintained path that avoids areas of sensitive habitat. ■ Improvements to existing routes to reduce impacts on habitat in sensitive areas. ■ Restriction or exclusion of Coastal Access Rights where there is a risk of increased recreational activity in sensitive areas. ■ Additional measures including existing, new or replacement educational notices where necessary.
Loss of feature extent through installation of new access management infrastructure	■ Avoiding installing new infrastructure in areas of qualifying habitats.

The Access and Sensitive Features Appraisal [3] (ASFA) that accompanied the published proposals and subsequently reviewed and replaced where relevant by this HRA, had concluded a different requirement for the need for information boards to control public behaviour. The HRA recognises that there is a significant level of public use of the beach areas, and a lesser use of the sensitive intertidal areas. There are many existing information boards scattered around Mersea Island and as such this HRA has concluded that information boards are not required in mitigation of the proposals but will be a helpful and supportive tool to educate the public on how their current actions could be affecting the local wildlife. At establishment stage a further decision will be taken as to which boards may need updating and if any new locations will need educational information to help the public understand the area. Information boards are not mitigation within this HRA.

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 local volunteers contributing to the national Wetland Birds (WeBS) survey at Mersea Island: in particular Dougal Urquhart and Andy Field for their generous contributions of time and invaluable knowledge of the dynamics of local bird populations. Special thanks are also due to Charlie Williams, Chris Keeling, the RSPB and to other organisations and local experts whose contributions and advice have helped inform the 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 could impact on a site designated for its international importance for wildlife, called a 'European site', a Habitats Regulations Assessment must be carried out. Ramsar sites and proposed Ramsar sites, potential Special Protection Areas (pSPA), candidate Special Areas of Conservation (cSAC); and sites identified or required as compensatory measures for adverse effects on European sites are treated in the same way by UK government policy.

The conclusions of this assessment are approved by a member of Natural England staff who is not a member of coastal access programme team and who has responsibility for protected sites. 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 [1]. Note that, following a ruling by the Court of Justice of the European Union (Case C-323/17 – usually cited as People over Wind), we have issued a technical memorandum concerning the application of this methodology where assessment under the Habitats Regulations is required. In order to comply with this ruling the Secretary of State has asked Natural England to update the HRAs of any proposals that were not determined before April 2018.

A2. Details of the plan or project

This assessment considers Natural England's proposals for coastal access along the stretch of coast around Mersea Island that were published on 28 June 2017. Our proposals to the Secretary of State for this stretch of coast are presented in a report that explains 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 chapters, both separately and as an overall access proposal for the part of the stretch in question.

Our proposals for coastal access have two main components:

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

England Coast Path

A continuous walking route around the coast – the England Coast Path National Trail - will be established by joining up existing coastal paths and creating new sections of path where necessary. The route will be established and maintained to National Trail quality standards. The coastal path will be able to 'roll back' as the coast erodes or where there is significant encroachment by the sea such as occurs in the case of a deliberate breach of sea defences.

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 [1]. Where there are already public or local rights to do other things, these are normally unaffected and will continue to exist in parallel to the new coastal access rights. The exception to this principle is any pre-existing open access rights under Part 1 of the Countryside and Rights of Way Act 2000 (CROW) over land falling within the coastal margin: the new coastal access rights will apply in place of these.

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

Of particular relevance to this assessment is that most areas of saltmarsh and mudflat within the Blackwater and Colne estuaries is considered unsuitable for public access and will be excluded from the new coastal access rights at all times regardless of any other considerations. As above, this will not affect other forms of established use, such as wildfowling.

Promotion of the England Coast Path

The Coast Path will be promoted as part of the family of National Trails. On the ground, the path will be easy to follow, with distinctive signposting at key intersections and places people can join the route. Directional way markers incorporating the National Trail acorn symbol will be used to guide people along the route. The coastal margin will not normally be marked on the ground, except where signage is necessary to highlight dangers that might not be obvious to visitors or clarify to the scope or extent of coastal access rights.

Information about the Coast Path will be available on-line, including via the established National Trails website that has a range of useful information, including things for users to be aware of such as temporary closures and diversions. The route is depicted on Ordnance Survey maps using the acorn symbol. The extent of the coastal margin is also depicted, together with an explanation about coastal access, where they do and don't apply and how to find out about local restrictions or exclusions.

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 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 permissions 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

Please note: As Mersea Island is immediately adjacent to the Salcott to Jaywick stretch of the England Coast Path it shares the same European sites. The essential information related to these sites is repeated below, but some further detail of the wider sites is contained in the Salcott to Jaywick HRA: **salcott-jaywick-habitats-regulations-assessment.pdf**

Blackwater Estuary SPA and Ramsar site

The Blackwater Estuary SPA covers an area of 4395.15 hectares, making it one of the largest and most important estuaries in East Anglia and Essex's largest estuary. The Blackwater Estuary SPA is an integral component of the five phased Mid-Essex Coast SPAs, along with the Colne Estuary SPA, Dengie SPA, the Crouch and Roach Estuaries SPA, and Foulness SPA. The Mid-Essex Coast SPAs support a diverse range of species. These include internationally important populations of breeding birds, as well as internationally important assemblages of wintering waterfowl, present in both nationally and internationally important numbers. The Mid-Essex Coast comprises an extensive complex of estuaries and intertidal sand and silt flats, including several islands, shingle and shell beaches and extensive areas of saltmarsh.

The Blackwater Estuary SPA lies adjacent to the Colne Estuary to the north and Dengie Flats to the south and opens out from Maldon on to the Essex coast. The site hosts a wide diversity of habitats with large stretches of mudflats fringed by saltmarsh on the upper shores. Deposition of shingle and shell banks, offshore islands and exposed gravel beds can be found along the tidal flats. Behind the sea walls, important areas of coastal grassland occur. The surrounding terrestrial habitats - the sea wall, ancient grazing marsh and its associated fleet and ditch systems, plus semi-improved grassland - are also of high conservation interest.

The Blackwater Estuary is a site of significant international ornithological importance for overwintering birds, including raptors, geese, ducks and waders. The diversity of estuarine habitats provides good quality feeding areas for a diversity of waterfowl species. At high tide, the birds roost along the shoreline and salt marsh fringe. The site is also important in summer for breeding terns. The more sheltered inner reaches of the Blackwater Estuary, where the sediments are fine and muddy, appear to support the highest concentrations of feeding birds across the Mid-Essex suite of SPAs.

At low tide, a vast expanse of intertidal mud is exposed from shore to shore. This enriched mud is a feeding ground for a variety of molluscs, crustaceans and worms, and encourages the growth of the green algae *Ulva* spp. and seagrass *Zostera* spp. at the seaward edges of the saltings. Isolated patches of seagrass can be found in the Blackwater Estuary on the northern shore of Osea Island and on the foreshore at Goldhanger. Wildfowl and waders amass to exploit this rich food supply in large numbers. During severe winter weather the Blackwater Estuary (and the whole Mid-Essex Coast) can assume even greater national and

international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate and the abundant food resources available on the site.

The Blackwater Estuary contains the largest area of saltmarsh in Essex, representing the fifth largest area in Great Britain. The saltings serve as important high tide wader roosts and support a specialised flora grazed by brent geese.

The Blackwater Estuary Ramsar site covers the same area as the SPA but this designation includes non-avian as well as avian qualifying features. The site's varied habitat mosaic supports a diverse range of plants and invertebrates, including an outstanding assemblage of 16 nationally scarce plant species and a nationally important assemblage of invertebrates, with 16 Red Data Book and 94 notable and local species.

Colne Estuary SPA and Ramsar site

The Colne Estuary SPA covers an area of 2719.93 hectares, making it one of the smaller estuaries in East Anglia. The Colne Estuary SPA is an integral component of the five phased Mid-Essex Coast SPAs, along with the Blackwater Estuary SPA, Dengie SPA, the Crouch and Roach Estuaries SPA, and Foulness SPA. The Mid-Essex Coast SPAs support a diverse range of species. These include internationally important populations of breeding birds, as well as internationally important assemblages of wintering waterfowl. The Mid-Essex Coast comprises an extensive complex of estuaries and intertidal sand and silt flats, including several islands, shingle and shell beaches and extensive areas of saltmarsh.

The Colne Estuary SPA lies adjacent to the Blackwater Estuary to the west with Dengie Flats to the south and opens out from Brightlingsea and Mersea Island on to the Essex coast, where marine areas are covered by the Outer Thames Estuary SPA. The site hosts a wide diversity of habitats with large stretches of mudflats fringed by saltmarsh on the upper shores. Deposition of shingle and shell banks, offshore islands and exposed gravel beds can be found along the tidal flats, particularly at Colne Point. Behind the sea walls, important areas of coastal grassland occur. The surrounding terrestrial habitats - the sea wall, ancient grazing marsh and its associated fleet and ditch systems, plus semi-improved grassland - are also of high conservation interest.

The Colne Estuary is a site of significant international ornithological importance for overwintering birds, including raptors, geese, ducks and waders. The diversity of estuarine habitats provides good quality feeding areas for a diversity of waterbird species. At high tide, the birds roost along the shoreline and salt marsh fringe. The site is also important in summer for breeding birds.

At low tide, a vast expanse of intertidal mud is exposed from shore to shore. This enriched mud is a feeding ground for a variety of molluscs, crustaceans and worms, and encourages the growth of the green algae *Ulva* spp. at the seaward edges of the saltings. Wildfowl and waders gather to exploit this rich food supply in large numbers. During severe winter weather, the Colne Estuary (and the whole Mid-Essex Coast) can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate and the abundant food resources available in the site.

This site is one of five Mid-Essex Coast SPAs: Dengie (Mid-Essex Coast Phase 1), Colne Estuary (Mid-Essex Coast Phase 2), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Blackwater Estuary (Mid-Essex Coast Phase 4), Foulness (Mid-Essex Coast Phase 5). These sites were classified in a phased approach to recognise the ecological linkages between them. Each individual site has its own conservation objectives and conservation advice package.

Essex Estuaries SAC

The Essex Estuaries SAC is the second largest estuarine site on the east coast of England. It contributes to the essential range and variation of estuaries in the UK as the best example of a coastal plain estuary system on the British North Sea coast. Covering an area of 472 square kilometres, this relatively undeveloped estuary complex contains 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 intertidal mudflats and sandflats within the European marine site support a wide range of typical estuarine and marine communities on sediments ranging from the finer estuarine muds and muddy sands to coarser sands and gravels.

The Essex Estuaries SAC contains either fully and or partially: five distinct SPAs, seven SSSIs and one MCZ. This complex of designations demonstrates well the importance of the Essex Estuaries SAC, both nationally and internationally. A high proportion of the area within the Blackwater Estuary and Colne Estuary SPAs also lies within the SAC. The SPAs 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 SPAs generally do.

One fifth of the total area of British saltmarshes occurs in East Anglia, with the Essex Estuaries SAC containing a significant proportion of the UK saltmarsh resource. Saltmarshes are highly productive biologically, providing nutrients which support other features within the marine ecosystem, such as mudflats, sandflats and subtidal areas, and wildfowl which graze the shoots of saltmarsh flowers and grasses or feed on the seeds of saltmarsh plants. They have an important physical role too acting as a sediment store to the estuary system as a whole and in providing roosting sites for waders and wildfowl at high tide. They also have an important flood defence function, absorbing wave energy and forming a natural buffer between land and sea. This latter function helps to protect the marsh surface itself from erosion.

The following table provides a complete list of the qualifying features of the European Sites which could be affected by the access proposals.

Table 3. Qualifying features

Qualifying feature	Colne Estuary SPA	Colne Estuary Ramsar	Blackwater Estuary SPA	Blackwater Estuary Ramsar	Essex Estuaries SAC
A046a *Branta bernicla bernicla* Dark-bellied brent goose (non-breeding)	✓	✓	✓	✓	
A082 *Circus cyaneus*; Hen harrier (non-breeding)	✓		✓		
A141 *Pluvialis squatarola*; Grey plover (non-breeding)			✓	✓	
A149 *Calidris alpina alpina*; Dunlin (non-breeding)			✓	✓	
A156 *Limosa limosa islandica*; Black-tailed godwit (non-breeding)			✓	✓	
A162 *Tringa totanus*; Common redshank (non-breeding)	✓	✓			
A059 *Aythya ferina*; Pochard (breeding)	✓		✓		
A137 *Charadrius hiaticula*; Ringed plover (breeding)	✓		✓		
A195 *Sternula albifrons*; Little tern (breeding)	✓		✓		
Waterbird assemblage (non-breeding)[1]	✓	✓	✓	✓	
Wetland plant assemblage[3]		✓		✓	
Wetland invertebrate assemblage[4]		✓		✓	
Saltmarsh		✓		✓	
H1110 Sandbanks which are slightly covered by seawater all the time					✓
H1130 Estuaries[2]					✓

Qualifying feature	Colne Estuary SPA	Colne Estuary Ramsar	Blackwater Estuary SPA	Blackwater Estuary Ramsar	Essex Estuaries SAC
H1140 Mudflats and sandflats not covered by seawater at low tide					✓
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*)					✓

Notes:

[1] A waterbird assemblage is a qualifying feature of both the SPA and Ramsar sites. When classifying a waterbird assemblage as an SPA qualifying feature, the Ramsar Convention's Strategic Framework definition of 'waterbird' is used and as such we consider the two qualifying features synonymous. Current abundance and composition of the assemblage feature is taken into account in our assessment.

The '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 of the Blackwater Estuary and Colne Estuary assemblages are:

Blackwater Estuary: brent goose, shelduck, wigeon, gadwall, teal, pintail, shoveler, goldeneye, red-breasted merganser, (smew), cormorant, little egret, avocet, ringed plover, golden plover, grey plover, lapwing, knot, dunlin, ruff, black-tailed godwit, bar-tailed godwit, curlew, (green sandpiper), (spotted redshank), (greenshank), redshank, turnstone, black-headed gull.

Colne Estuary: mute swan, brent goose, shelduck, goldeneye, cormorant, little egret, avocet, ringed plover, golden plover, grey plover, lapwing, sanderling, dunlin, black-tailed godwit, curlew, (green sandpiper), (greenshank), redshank.

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

Latin names and international English names for bird species, as used in SPA Conservation Objectives, are given in the table above. Elsewhere in this HRA, shorter and more familiar

English vernacular names are used for some species (for example: brent goose, redshank, pochard).

[2] The following sub-features are cited as contributing to the SAC 'estuaries' feature: Atlantic salt meadows, intertidal coarse sediment, intertidal mixed sediments, intertidal mud, intertidal rock, intertidal sand and muddy sand, intertidal seagrass beds, subtidal coarse sediment, subtidal mixed sediments, subtidal mud, subtidal sand, subtidal seagrass beds. Each of those known to occur near this Coast Path stretch are considered in the assessment that follows.

[3] Nationally scarce vascular plant species, mainly of saltmarsh and brackish coastal habitats. The assemblages of the two Ramsar sites are not the same but have several species in common. [6] [7]

[4] Notable invertebrate species of saltmarsh and other coastal habitats, including scarce species with high habitat fidelity. The assemblages of the two Ramsar sites are not the same but have several species in common. [6] [7]

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.

Blackwater Estuary SPA Conservation Objectives

Colne Estuary SPA Conservation Objectives

Essex Estuaries SAC Conservation Objectives

For Ramsar sites, a decision has been made by Defra and Natural England not to produce Conservation Advice packages, instead focusing on the production of 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 Blackwater Estuary Ramsar site and the Colne Estuary 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 Blackwater Estuary Ramsar site can be viewed at: http://jncc.defra.gov.uk/pdf/RIS/UK11007.pdf

The Ramsar Information Sheet for the Colne Estuary Ramsar site can be viewed at: http://jncc.defra.gov.uk/pdf/RIS/UK11015.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 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.

Some of the qualifying features considered in this assessment occupy similar ecological niches and share ways in which they might be sensitive to the access proposals. To avoid repetition and improve the clarity of this assessment we have grouped the qualifying features as shown in Table 4.

Table 4. Feature groups

Feature group	**Qualifying feature(s)**
Birds breeding on shingle/sand	Ringed plover and little tern (both breeding)
Breeding pochard	Pochard (breeding)
Non-breeding waterbirds	Dark-bellied brent goose; grey plover; black-tailed godwit; dunlin; redshank; waterbird assemblages (all non-breeding)
Hen harrier	Hen harrier (non-breeding)
Subtidal sandbanks	Sandbanks which are slightly covered by seawater all the time (to include the sub-features of SAC Estuaries within this tidal zone)
Intertidal mudflats and sandflats	Mudflats and sandflats not covered by seawater at low tide (to include the sub-features of SAC Estuaries within this tidal zone)
Saltmarsh	*Salicornia* and other annuals colonising mud and sand; *Spartina* swards; Atlantic salt meadows (SAC Estuaries); Mediterranean and thermo-Atlantic halophilous scrubs.
Wetland plant assemblages	Wetland plant assemblages
Wetland invertebrate assemblages	Wetland invertebrate assemblages

The risk of significant effects alone is considered in the following table:

Table 5. Assessment of likely significant effects alone

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Birds breeding on shingle / sand	Disturbance of breeding birds	Birds and their nests in the vicinity of the Coast Path or in the coastal margin may be disturbed by recreational activities including walking and walking with a dog. Suitable nesting habitat (shingle and sand beaches) are often popular for recreation during the summer, which puts these species at increased risk.	The level of risk is higher at places where the access proposals are likely to place breeding birds at risk from recreational activities.	**Yes**
Birds breeding on shingle / sand	Loss of supporting habitat through installation of access management infrastructure	The supporting habitats of the qualifying features may be permanently lost due to the installation of new access management infrastructure.	No appreciable risk because the access infrastructure will not be located in breeding habitats.	**No**
Breeding pochard	Disturbance of breeding birds	Birds and their nests in the vicinity of the Coast Path or in the coastal margin may be disturbed by recreational activities including walking and walking with a dog. Breeding pochard are shy and nest in dense vegetation around freshwater or brackish waterbodies.	The level of risk is higher at places where the access proposals are likely to place breeding birds at risk from recreational activities.	**Yes**
Breeding pochard	Loss of supporting habitat through installation of access management infrastructure	The supporting habitats of the qualifying features may be permanently lost due to the installation of new access management infrastructure.	No appreciable risk because the access infrastructure will not be located in breeding habitats.	**No**

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Non-breeding waterbirds	Disturbance of feeding or resting birds	Birds feeding on or near the foreshore or grazing marsh or resting in the vicinity of a coastal path may be disturbed by recreational activities including walking and walking with a dog.	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 including undisturbed high tide roost sites and important feeding areas.	**Yes**
Non-breeding waterbirds	Loss of supporting habitat through installation of access management infrastructure	The supporting habitats of the qualifying features may be permanently lost due to the installation of new access management infrastructure.	No appreciable risk The ECP follows existing walked routes on dry habitats, not favoured by the non-breeding waterbirds.	**No**
Hen harrier	Disturbance of resting birds	Birds roosting in the vicinity of the Coast Path or in the coastal margin may be disturbed by recreational activities including walking and walking with a dog.	No appreciable risk There are no known regularly used roost sites on Mersea Island. The closest roost site is at Langenhoe Point, which is separated from Mersea Island by the Pyefleet Channel.	**No**
Subtidal sandbanks	Trampling or other physical damage from recreational activities	The subtidal habitats are below the low tide mark so coastal access rights will not apply here.	No appreciable risk. No impact as coastal access rights do not apply below mean low water.	**No**
Intertidal mudflats and sandflats	Trampling or other physical damage from recreational activities	Intertidal mudflats and sandflats are not sensitive to being walked on occasionally.	No appreciable risk. The proposed route is not aligned across intertidal flats at any point. The majority of intertidal flats are not within spreading room in the coastal margin because they are unsuitable for public access on foot and will be excluded by direction. These are	**No**

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
			naturally disturbed habitats (tidal inundation) and refresh on each inundation.	
Intertidal mudflats and sandflats	Loss of supporting habitat through installation of access management infrastructure	Intertidal habitat may be permanently lost due to installation of new access management infrastructure, leading to a reduction in habitat.	No appreciable risk The access infrastructure will not be located on this habitat.	**No**
Saltmarsh	Trampling or other physical damage from recreational activities	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.	The level of risk is low because the majority of the feature has access excluded and where there is access proposed at West Mersea this area is currently and historically used for low level recreation.	**Yes**
Saltmarsh	Loss of feature extent through installation of access management infrastructure	Areas of saltmarsh may be permanently lost due to the installation of new access management infrastructure (e.g. signage, bridges, gates, surfacing).	No appreciable risk. No new access management infrastructure is proposed on saltmarsh.	**No**
Wetland plant assemblages	Regular trampling of sensitive vegetation	The associated habitats of the qualifying features may be damaged due to trampling where people regularly walk away from established paths.	The level of risk is low. The nationally scarce species in the plant assemblages of the Blackwater Estuary and Colne Estuary Ramsar sites grow in a variety of coastal habitats including saltmarsh and transitions to vegetated sand/shingle, grazing marsh, seabanks, and the foldings	**Yes**

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
			immediately inland of them. These plant species vary considerably in their sensitivity to trampling or cutting.	
Wetland plant assemblages	Loss of habitat extent through installation of access management infrastructure	The supporting habitats of the features may be permanently lost due to installation of new access management infrastructure.	The level of risk is low. No major access infrastructure proposed that would damage habitat. Land lost to individual posts considered or 'spread of width of path' through trampling.	**Yes**
Wetland invertebrate assemblages	Damage to habitats supporting assemblage species caused by trampling.	The associated habitats of the qualifying features may be damaged due to trampling where people regularly walk away from established paths.	The level of risk is low. The invertebrates listed on Ramsar Information Sheets for the Blackwater Estuary and Colne Estuary Ramsar sites are a mix of species of grazing marsh, upper saltmarsh or sand/ shingle, and more 'generalist' species found in a variety of coastal habitats.	**Yes**
Wetland invertebrate assemblages	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.	The level or risk is low. No major access infrastructure proposed that would damage habitat. Land lost to individual posts considered or 'spread of width of path' through trampling.	**Yes**

Conclusion:

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

- Breeding ringed plover and little tern as a result of disturbance
- Breeding pochard as a result of disturbance

- Dark-bellied brent goose; grey plover; black-tailed godwit; dunlin; redshank; waterbird assemblages (all non-breeding) – as a result of disturbance
- *Salicornia* and other annuals colonising mud and sand; *Spartina* swards; Atlantic salt meadows (SAC Estuaries); Mediterranean and thermo-Atlantic halophilous scrubs as a result of trampling.
- Wetland plant assemblages as a result of trampling and loss of habitat extent
- Wetland invertebrate assemblages as a result of trampling and loss of habitat

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

- Ringed plover, little tern and pochard (all breeding) – as a result of loss of supporting habitat through installation of access infrastructure
- Dark-bellied brent goose; grey plover; black-tailed godwit; dunlin; redshank; waterbird assemblages (all non-breeding) – as a result of loss of supporting habitat through installation of access infrastructure
- Hen harrier (non-breeding)
- Sandbanks which are slightly covered by seawater all the time
- Mudflats and sandflats not covered by seawater at low tide
- Salicornia and other annuals colonising mud and sand; Spartina swards; Atlantic salt meadows (SAC Estuaries); Mediterranean and thermo-Atlantic halophilous scrubs as a result of habitat loss through installation of access infrastructure
- Estuaries' sub-features: intertidal coarse sediment, intertidal mixed sediments, intertidal mud, intertidal rock, intertidal sand and muddy sand, intertidal seagrass beds, subtidal coarse sediment, subtidal mixed sediments, subtidal mud, subtidal sand, and subtidal seagrass beds.

Any appreciable risks identified that are not significant alone are further considered in section C2.2

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.

In C2.1 the qualifying features on which the access proposals might have an effect alone are identified – these are considered further in Part D of this assessment. For all other features, no other appreciable risks arising from the access proposals were identified that 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 Site(s):

- Ringed plover, little tern and pochard (all breeding) – as a result of loss of supporting habitat through installation of access infrastructure
- Dark-bellied brent goose; grey plover; black-tailed godwit; dunlin; redshank; waterbird assemblages (all non-breeding) – as a result of loss of supporting habitat through installation of access infrastructure
- Hen harrier (non-breeding)
- Sandbanks which are slightly covered by seawater all the time
- Mudflats and sandflats not covered by seawater at low tide
- *Salicornia* and other annuals colonising mud and sand; *Spartina* swards; Atlantic salt meadows (SAC Estuaries); Mediterranean and thermo-Atlantic halophilous scrubs as a result of habitat loss due to the installation of infrastructure

Estuaries' sub-features: intertidal coarse sediment, intertidal mixed sediments, intertidal mud, intertidal rock, intertidal sand and muddy sand, intertidal seagrass beds, subtidal coarse sediment, subtidal mixed sediments, subtidal mud, subtidal sand, and subtidal seagrass beds.

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 Sites '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 6. Scope of Appropriate Assessment

Environmental pressure	Qualifying Feature(s) affected	Risk to Conservation Objectives
Disturbance of breeding birds	Breeding waterbirds: ■ ringed plover ■ little tern ■ pochard	Repeated disturbance to breeding waterbirds during the breeding season following changes in recreational activities as a result of the access proposal, leads to nest trampling or abandonment and the resultant reduction in the breeding population.
Disturbance of feeding or resting birds	Non-breeding waterbirds: ■ dark-bellied brent goose; ■ grey plover; ■ black-tailed godwit; ■ dunlin; ■ redshank; ■ waterbird assemblage	Repeated disturbance to foraging or resting waterbirds during winter and on passage, 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.
Trampling or other physical damage from recreational activities	■ *Salicornia* and other annuals colonising mud and sand; ■ *Spartina* swards; ■ Atlantic salt meadows; Mediterranean (which includes Estuaries sub-feature) ■ thermo-Atlantic halophilous scrubs ■ Wetland plant assemblage	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 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

	■ Wetland invertebrate assemblage	composition of plant communities, and reductions in species' population size or distribution.
Loss of feature extent through installation of access management infrastructure	■ wetland plant assemblage ■ wetland invertebrate assemblage	The installation of access management infrastructure may lead to a permanent loss of extent within the site of habitats that support plant or invertebrate species that are qualifying features.

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

Since the publication of our proposals on 28th June 2017, the following information has become available and has informed the drafting of this assessment:

- Blackwater Estuary SPA Supplementary Advice Package [3]
- Colne Estuary SPA Supplementary Advice Package [4]
- Essex Estuaries SAC Supplementary Advice Package [5]
- Review of the wildlife refuge and breeding areas around Mersea Island

Note also that the most recent WeBS data has been used up to 2019-20 [8]

Breeding waterbirds

Of the three breeding species that are SPA qualifying features, two – ringed plover and little tern – share the same sparsely-vegetated coastal sand / shingle / shell nesting habitat, so are treated as one feature group in this HRA. Conservation advice for both SPAs defines their sensitive periods as May to August for little tern and April to September for ringed plover. These breeding species are more vulnerable to disturbance than the other SPA features because the nesting season largely coincides with the summer holiday period and their sand/shingle nesting habitat is often on or close to beaches popular for seaside recreation. This is particularly true along the Essex coast, where stretches of sand/shingle beach are limited, so they are often heavily used by the public.

Breeding populations of both species have suffered marked declines at national and county levels since the 1980s. The declines are thought to have been driven largely by increased disturbance due to recreational use of the coast, along with sea level rise (causing more frequent flooding of nesting areas during high spring tides) and increased predation [Ref 9]. As well as reducing breeding success directly, disturbance by humans or dogs can act synergistically with predation. This is because nests can be easier for predators to locate if adults are flushed off them repeatedly, and the unattended eggs or chicks may be more vulnerable.

On both SPAs (covering a much wider area than Mersea island itself), breeding ringed plover have declined markedly since classification: from estimated base-line populations in the late 1980s / early 1990s of around 50 pairs on each SPA [Ref 10, Ref 11] to 26 on the Colne and five on the Blackwater in 2007 (when a national survey was carried out), to just five pairs recorded from the Colne and none from the Blackwater in 2017 (though coverage was incomplete) [Ref 12]. Little tern has suffered a similarly dramatic decline on the Colne from a baseline population of about 40 pairs to between zero and eight pairs since 2013, few of which have reared young [Ref 12]. On the Blackwater the baseline population of little terns was only five pairs at SPA classification, not much above recent years. But in the interim the population rose to a maximum of 130 pairs in 2001 before crashing over the following few years [Ref 12]. Little terns nest colonially and rapid changes in the size and location of colonies are characteristic in Essex [Ref 9]. There are no recent records of little tern nesting on Mersea and they are therefore not considered in detail below.

Advice on conservation objectives for the Colne Estuary SPA sets ‘restore’ targets for both breeding ringed plover and little tern abundance; and advice on conservation objectives for the Blackwater Estuary SPA sets a ‘restore’ target for breeding ringed plover abundance and a ‘maintain’ target for breeding little tern abundance. Due to their recent declines and high susceptibility to disturbance, conservation advice for both these breeding species on the Colne and Blackwater Estuary SPAs defines the target for the attribute “disturbance due to human activity” as: “Reduce the frequency, duration and/or intensity of disturbance affecting roosting, nesting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed.”

On both SPAs, ringed plover and little tern nesting habitat is limited to a few areas mainly near the mouths of the estuaries, where strong tidal currents and wave action lead to coarser material accumulating on the shoreline, rather than fine silt. The nearest known sites to Mersea Island for nesting ringed plovers are on the small islands with sandy beaches to the south west of Mersea Island at Packing Marsh and historically nearby Cobmarsh Island. One or two pairs of nesting ringed plovers also attempt to nest each year at Mersea Stone spit in the East of Mersea, with young chicks being seen most years. No little terns have bred recently on the south western islands or on Langenhoe Point (north of Mersea Stone Spit). The most recent records are from 2016 when two pairs bred on Cobmarsh Island, however there were no fledged young.

The breeding ringed plovers at Mersea Stone spit are susceptible to tidal inundation. However, they are particularly vulnerable to human disturbance at Mersea Stone from the public that use this area year round as part of the country park and National Nature Reserve, are encouraged to explore the WWII infrastructure on the spit and undertake beach pastimes as well as shoreline fishing. Usage can increase a little from the passengers using the East Mersea to Brightlingsea Foot Ferry which operates between April to September and therefore coincides with the breeding season. But the area is extremely popular with the public and the ferry is unlikely to be a significant pressure. Breeding ringed plover are likely to abandon their nests if repeatedly displaced.

Detailed field studies have shown that levels of disturbance have a major impact on the species’ breeding density at coastal sites [13]. The current high level of use by walkers and their dogs is probably a major reason for the erratic occurrence and low numbers of ringed plovers attempting to nest on the Mersea Stone spit and the smaller areas of suitable

sand/shingle habitat elsewhere on Mersea Island. At Mersea Stone, pairs often make two or three nesting attempts in a season before rearing any young. Low rope fencing has been used, to some success, around occupied nests to provide some protection from disturbance and trampling without significantly restricting visitors' access.

Breeding pochard are less susceptible to disturbance than little terns or ringed plovers because they nest in dense vegetation around freshwater or slightly brackish waterbodies. The majority of the breeding population on both SPAs nest around fleets, ponds and ditches in the main areas of grazing marsh. From records in Essex Bird Reports [12], the species' stronghold in the two SPAs is not on Mersea Island but at the Old Hall Marshes RSPB reserve, and on Langenhoe Marshes, just north of Mersea Island. On Mersea island itself, suitable nesting habitat for pochard is rather limited but in 2018 two pairs bred in the borrowdyke near Mersea Stone adjacent to the popular path on the seawall in Cudmore Country Park, and another pair regularly breeds in the pond at Cudmore Grove Country Park. Broods of ducklings were seen in 2017 and 2018 in borrow dykes elsewhere, including near the Strood Channel and at Reeveshall Marsh.

Estimated baseline populations for breeding pochard at SPA classification are 39 and two pairs for the Blackwater and Colne respectively [10, 11]. But the latter is probably a considerable underestimate because unpublished records from the Fingringhoe Ranges MOD land were not included. Advice on conservation objectives for both SPAs sets 'maintain' targets for breeding pochard abundance.

Non-breeding waterbirds

One of the factors taken 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 boundaries of the Blackwater Estuary and Colne Estuary SPAs and Ramsar sites, both of which have non-breeding waterbird assemblages and dark-bellied brent goose as qualifying features. In addition, four wader species are non-breeding qualifying features: redshank on the Colne and grey plover, dunlin and black-tailed godwit on the Blackwater. Natural England has published Supplementary Advice on Conservation Objectives for all these features [10, 11].

With one exception, conservation advice on the non-breeding waterbird features of both SPAs sets 'maintain' (rather than 'restore') targets for population size, as numbers have not declined significantly since site classification 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. The exception is brent goose on the Colne Estuary where there has been a 27% decline since classification [11]. But from recent BTO analyses of trends in WeBS core count data ('WeBS Alerts') the numbers of brent geese overwintering on the Colne appear to be more or less tracking the regional and British trends, suggesting environmental conditions on the SPA remain relatively favourable for the species [14].

Nevertheless there are clear indications from the recent WeBS Alerts analyses that non-breeding waterbirds are faring less well on the Colne Estuary than on the Blackwater. For example, of the 30 species for which analyses have been carried out for both SPAs, 14

species (47%) show a decline of 50% or more between the winters of 1991/92 and 2016/17 on the Colne, compared to three (10%) on the Blackwater. Similarly the SPA waterbird assemblage on the Blackwater increased by 18% over that 25 year period, compared with a decline of 26% on the Colne [Ref 25]. These differences might partly be due to less consistent WeBS coverage on the Colne but that is unlikely to be the main reason because the BTO's analyses take the effect of missing values into account.

Restricting disturbance at major high tide roosts is important, particularly 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. Most waders and some wildfowl are considered more vulnerable to disturbance at high tide, when available habitat is greatly reduced and many birds roost on or just above the waterline. Locations of the main roosts around Mersea Island are summarised by Panter & Liley (2016) [15] and more recent summary maps have been produced by local WeBS recorders in 2020. Many of the major roost sites along this Coast Path stretch are on the seaward edge of the saltmarsh on the north coast of the island (adjacent to the Pyefleet and Strood Channels), and on large areas of farmland/grazing marsh landward of the trail, including Cudmore Grove Country Park. On the west side of the island there is an important roost near Ray Island in the Strood Channel and birds also roost on the islands off West Mersea. There is very little saltmarsh or other suitable roost habitat in the intertidal zone on the exposed south side of Mersea. Currently only one roost is identified here, on a raised sand/shingle area in front of the seawall south of Rewsalls Farm. Now the seawall east of this has breached it may provide additional roost sites nearby.

Functionally linked land (supporting habitat lying outside SPA boundaries) is important for several wader species, such as lapwing, golden plover and curlew, and especially important for brent geese. Historically, most brent geese fed in the intertidal zone on eelgrass (*Zostera* spp.) and green marine algae on intertidal mud, and on saltmarsh plants. However, there has been a widespread decline in eelgrass, which is now very rare in the Blackwater and absent from the Colne, so no longer a significant food source in these SPAs. Brent geese wintering on the east coast now appear to be largely dependent on winter wheat and barley, oil seed rape, grass fields and amenity grasslands. Both SPAs on this stretch include 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 [9]. There are many fields of open farmland/grazing marsh suitable for brent geese on Mersea Island, particularly at Reeveshall Marsh, Maydays Marsh, Wellhouse Farm in West Mersea, and Rewsalls and Fen Farm in the south of the island. The abundance of farmland on Mersea Island may explain why the winter peak 'international threshold' for brent geese is regularly exceeded just on Mersea Island on its own. However, some of these farms do manage the brent populations using their farms through licensed shooting [15].

The latest low tide survey (Calbrade et al. 2008) shows high concentrations of several species along the Pyefleet Channel, with some spread evenly along it (knot, dunlin) and others concentrated mainly around the eastern end (brent goose, ringed plover, golden plover, lapwing). On the Mersea Flats birds occur at lower densities but because of the much wider intertidal zone (over 1 km) the flats are still an important feeding area.

‘Farmland feeding’ species are generally more susceptible to land-based disturbance than those feeding and roosting more or less exclusively in the intertidal zone. But the Pyefleet and Strood Channels are quite narrow, so a relatively high proportion of their mudflats lie within 60 metres of the seawall and are particularly vulnerable to disturbance (Panter & Liley 2016). The eastern two of the three main high tide roosts along the Pyefleet Channel are also less than 100m from the seawall. Walkers or their dogs straying more than a few metres onto the saltmarsh would be likely to flush birds from these roosts.

Conservation advice on each SPA defines the months when significant numbers of each qualifying bird species are likely to be present in a typical year, based on analyses of WeBS data for the site. The various non-breeding bird features differ somewhat in their seasonal occurrence. For example, significant numbers of brent geese are present on the Blackwater from October to April, and on the Colne from October to March, whereas significant numbers of black-tailed godwit and redshank are present from August to April (on the Blackwater and Colne respectively), with some redshank staying on to breed. Peak numbers of these waders can occur in the autumn migration period, rather than during the winter. Advice is not provided on the seasonality of the two SPA’s waterbird assemblages, but as both include long-staying species like redshank and black-tailed godwit among their main component species, these assemblage features should probably be considered as potentially sensitive for a similar period.

Saltmarsh and wetland plant assemblages

In this HRA, the four Essex Estuaries SAC saltmarsh features are considered together as one feature group. Of these, H1320 ‘*Spartina* swards’ is rare along this Coast Path stretch and only occurs as individual plants or small clumps of *Spartina maritima* scattered among other species in mid to upper zone saltmarsh. There are records of *Spartina maritima* in the saltmarsh south of Pyefleet Channel in East Mersea, and in the marshes near Coopers Beach Caravan Park. (Stands of the invasive hybrid *Spartina anglica,* are not considered to be part of this SAC feature but in several places are becoming the main pioneer saltmarsh community.)

The other three SAC saltmarsh types are at least locally abundant along the stretch. The great majority of the saltmarsh is H1330 ‘Atlantic salt meadows’ which forms the majority of the saltmarsh around Mersea Island. Around Mersea Island, saltmarsh is mainly found along the Strood and Pyefleet channels. The largest area lies between the Strood causeway and Maydays Marsh about 2km to the east. The island’s southern shoreline is generally too exposed to wave action for saltmarsh to develop, though there are small areas near the western and eastern ends, at St Peter’s Meadow saltmarsh and Fen Farm respectively - in both cases protected behind sand/shingle ridges. H1310 ‘Salicornia and other annuals colonising mud and sand’ is pioneer saltmarsh growing lower down the intertidal zone beyond the seaward edge of H1330 and along channel and creek edges.

H1420 ‘Mediterranean and thermo-Atlantic halophilous scrubs’ (Mediterranean saltmarsh scrub) is much more localised. Along most of the stretch it only occurs as occasional small stands of shrubby sea blite *Suaeda vera* on upper or transitional saltmarsh such as at Mersea Stone Spit in East Mersea where it covers approximately 0.7ha, and St Peter’s Meadow/Monkey Beach in West Mersea where it covers about 0.4ha. A discontinuous band

a few metres wide runs along the shingle ridge next to the Fen Farm saltmarsh. Elsewhere, smaller scattered patches and isolated bushes occur on the seaward slopes of seawalls or on adjacent areas of driftline saltmarsh.

All four types of saltmarsh are more sensitive to trampling than many terrestrial vegetation communities. The effects include changes in vegetation structure and species composition, often resulting in a shorter, less diverse sward with more bare ground and greater susceptibility to erosion or colonisation by invasive *S.anglica*.

The relative susceptibilities to trampling damage of the different saltmarsh communities depend as much on where they grow as on the intrinsic sensitivity of their constituent species. Mediterranean saltmarsh scrub is probably the most at risk, simply because it is relatively rare and the largest stands are on quite firm substrates close to sand/shingle beaches popular with the public. Stands at East and West Mersea show obvious trampling damage, including multiple desire-line paths. Trampling damage currently affects a much smaller proportion of the extent of other SAC saltmarsh types. It mainly occurs in localised areas, often where coastal footpaths become very muddy after frequent use, so walkers skirt round them onto adjacent upper saltmarsh. But the resulting localised trampling damage is much easier to address than the major systemic threats to saltmarsh: sea-level rise and coastal squeeze.

Saltmarsh areas in the vicinity of Mersea Stone spit and St Peter's Meadow are quite heavily used by the public and show significant localised trampling damage. Other saltmarshes around the island do not but the strip of saltmarsh alongside the Reeveshall Marsh seawall shows similar damage caused by overgrazing

As in most other parts of the Essex coast, there has been a net loss of saltmarsh around Mersea Island over the last several decades as a result of 'coastal squeeze': sea-level rise is causing erosion but the saltmarsh cannot shift landward because of the presence of man-made flood defences. Estimates of net rates of loss differ between studies but from the most recent (Thomson et al. 2011) [16], the extent of saltmarsh around Mersea Island declined from 106.6 ha to 103.0 ha between 1997 and 2008 - a net loss of about 0.3% per year. This estimate largely excludes 'internal' erosion due to the gradual widening of minor channels within the marsh, which is apparent in many areas.

Ramsar Information Sheets for the Blackwater Estuary and Colne Estuary Ramsar sites list 15 and 12 nationally scarce species respectively in their wetland plant assemblages. Updated lists (taking into account new records, local extinctions and changes in national status) give totals of 16 and 18 nationally scarce species. Half of those are saltmarsh species and, like the communities they occur in, are quite sensitive to trampling. They include *Spartina maritima* and *Suaeda vera* (key component species of H1320 *Spartina* swards and H1420 Mediterranean saltmarsh scrub respectively) and six other nationally scarce species mainly found in the upper to mid zone of Atlantic salt meadows, 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 the sea defences. Several are mainly found where there is a relatively high content of sand or shingle. Of the Ramsar species that are also section 41 species, there are records of five species around Mersea Island.

Most of the remaining assemblage members cannot tolerate regular flooding with sea water and so are mainly restricted to areas inland of seabanks. The majority require brackish,

relatively open ground and 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. A few other assemblage species are mainly found further inland on brackish grazing marshes or in their ditch systems.

Wetland invertebrate assemblages

Information Sheets for the Blackwater Estuary and Colne Estuary Ramsar sites list 16 and 38 Red Data Book (RDB) species respectively in the sites' wetland invertebrate assemblages. The assemblages are similar (13 species are on both lists) and more recording effort for some invertebrate groups on the Colne is a possible reason for that site's longer list. But the greater area and variety of habitats on coarser sediments around the Colne is also likely to be a contributory factor, as its assemblage includes more species characteristic of sand/shingle. Recent surveys have found additional RDB and nationally scarce species in a variety of habitats on both sites.

Species of saltmarsh and transitional brackish marsh are the main component of both Ramsar site assemblages. They include species found on saltmarsh or moderately brackish grazing marsh. Other smaller components are species of freshwater habitats (reflecting the least brackish areas of grazing marsh) and early successional sand or chalk (reflecting the sand/shingle habitats).

Habitats that are particularly important for these scarce coastal invertebrates [17] include:

- Mid-upper zone and drift line saltmarsh, especially where it is sheltered and the vegetation is relatively species-rich and structurally complex and includes plants particularly important for invertebrates (such as sea wormwood, sea lavender, golden samphire, shrubby sea-blite and sea rush), and there are transitions to semi-natural freshwater or terrestrial habitats just inland.
- Grazing marsh, especially where there are a good variety of shallow ditches and fleets with abundant emergent vegetation, at a range of successional stages and with a range of salinities from freshwater to brackish.
- Vegetated sand or shingle, especially where there is a mixture of organic debris such as drift wood, leaf litter and seaweed along the strandline and, on higher ground, some patches of bare sand.
- Any habitat with abundant nectar sources, whether on saltmarsh, or on/inland of seabanks.

The most sensitive invertebrate habitats to recreational activities on Mersea Island are the upper saltmarsh/ drift litter layer and to a lesser extent the vegetated sand/shingle habitat including the drift litter layer. The invertebrate habitats associated with grazing marsh, mid saltmarshes and the brackish pools and ditches are less likely to be impacted by recreational activities as they are a lot wetter underfoot so less attractive to walkers. Well walked areas where there are existing and well used paths will generally be of little interest to these invertebrate features.

The value of coastal habitats for scarce invertebrates depends on the plant species they support and on their physical structure. Increased trampling of areas of upper saltmarsh or

vegetated sand/shingle could damage the habitats' invertebrate communities but is unlikely to be severe or large-scale enough to produce significant effects except in unusual circumstances. For example, significant damage might be caused if important areas of these habitats with limited or no previous access became heavily used as a result of new public access rights, or if new access infrastructure were installed, such as gates and signs, on key habitats there was a loss of habitat.

Other less direct effects of increased access might affect invertebrate communities significantly if they led to changes in the characteristics of important habitats on a large enough scale. For example, if increased recreational access led to demands to 'tidy up' sand/shingle areas by removing plants and organic strandline debris, or to allow vehicle access, that would damage invertebrate as well as plant communities. Or if new access rights required changes to the way vegetation on and behind seabanks is managed - such as changes in grazing or cutting - that might also be damaging in some circumstances.

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

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

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

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

In this section of the assessment we describe our overall approach to address the potential impacts and risks from the access proposals.

Disturbance of breeding waterbirds

The potential for changes in coastal access to increase disturbance to the three breeding bird SPA qualifying features on this stretch (ringed plover, little tern and pochard) is more localised than for the non-breeding bird features.

For ringed plover and little tern the potential for interaction with humans is highest in the vicinity of their sand/shingle nesting habitat. Moreover, recreational disturbance is considered to have been one of the main contributory factors in these species' declines, both on the Essex coast and more widely. We have therefore paid particular attention to them where the nesting habitats exist. The main area of suitable nesting habitat around Stone Point on the east of Mersea Island is considered in detail below (see D3.2D).

For breeding pochard the main breeding/nesting areas are likely to be inland from the proposed route, as the habitats they prefer for nesting are grassland, reeds and other dense emergent or fringe vegetation where they create a depression in the longer vegetation as a

nest. As the coast path generally stays very close to the landward side of the mean high water mark around the island, there is little of the preferred nesting habitat that is affected directly by the access proposals. Small pockets may exist in isolated locations between the trail and mean high water but the habitat extent is too small to support nesting pairs. The ECP creates no publicly accessible land inland of the trail over habitats associated with nesting pochard and generally follows existing walked routes around the coastline. There is no specific design requirement of the access proposals to address possible risks to nesting pochard.

Disturbance of feeding or resting water birds

The design of the England Coast Path, on generally walked route around the island, on land close to the water's edge has met the design brief for the ECP as laid out in the Parliamentary Approved Scheme, which focuses on a route designed and maintained to a high level for public access. This inherent design feature itself has ensured those users undertaking the onward journey on a waymarked route have limited chance for interaction with the areas sensitive to disturbance as they are geographically separated.

A second design feature, inherent in the Scheme guidance and replicated along much of this coastline of the Greater Thames estuary is to apply an exclusion of the coastal access rights over saltmarsh and flat deemed unsafe for the public to access. This design feature targeted at public safety has the benefit of further separating the areas sensitive to disturbance from the areas accessible by the public.

Excluding access to the flats and saltmarsh, favoured feeding and resting areas of wintering waterbirds, would not only protect waterbirds from disturbance but protect supporting habitat and the wetland invertebrate assemblage from trampling.

These conservation interests will need to be addressed separately in those areas where the S25A of CROW exclusion is not applied and the public therefore have a right of access on foot through the Marine and Coastal Access Act. These specific and geographically limited areas are found around St Peter's Well meadow in West Mersea.

Furthermore in key areas this legal basis of no access to areas of coastline away from the alignment of the trail will have the message further strengthened through information boards promoting the ECP and the wildlife interests of Mersea Island. There will also be a degree of informal control through the presence of wardens and rangers at the existing nature reserves and country parks.

Bird Aware Essex Coast https://birdaware.org/essex/ is Essex's strategic, landscape scale response to tackling increased visitor pressure on the coast, arising from new residential development. Bird Aware Essex Coast will be funded by contributions from house builders and covers the coast from the Stour & Orwell Estuaries to the Thames Estuary. This area includes the following SPAs: Stour & Orwell; Hamford Water; Colne; Blackwater; Dengie; Crouch & Roach; Foulness; Benfleet & Southend Marshes; and Thames Estuary and Marshes (north bank only). It has been set-up to develop a strategy to accommodate increasing housing growth in the area, whilst protecting sensitive features.
The scheme is still in its relatively early stages, and the Supplementary Planning Document (SPD) was published in May 2020, including the following statement (2.14): "The Essex coast RAMS aims to deliver the mitigation necessary to avoid the likely significant effects from the 'in-combination' impacts of residential development that is anticipated across Essex; thus, protecting the Habitats sites on the Essex coast from adverse effect on site integrity." The total mitigation budget from 2019 to 2038 is almost £9 million (SPD 4.5).

As the S25A is not mitigation but an inherent design feature, the information boards are also a design feature aimed to educate and inform the public about their rights of access at the site level. These rights will also be available to reference through websites, such as the Open Access Website.

At a stretch level, in addition to communication and the indirect protection that the S25A of CROW exclusion affords the qualifying features, the following factors will ensure that for the greatest majority of the stretch the potential risks identified will not materialise:

- The trail and associated coastal access margin are aligned to where it is deemed the least impactful on designated features. A large proportion of the proposed trail is aligned with existing public footpaths along the seabank for the greatest length of the trail and on already walked informal routes elsewhere.

- The saltmarsh and flat is unattractive and rarely accessed by the public especially when there are beaches to visit. The use of these muddy areas is also highly seasonal, with the public least like to venture into the intertidal environment during the colder winter months, the time of year when the bird life is most susceptible to disturbance. The tidal cycle and short winter days also further reduce the risk of interaction.

- The trail will be well maintained and easy to follow

As a rule of thumb, we consider any recreational activity on foot by people and dogs at 200 meters or less of resting and feeding birds to be a potential cause of visual disturbance. It is recognised that this is not a precise figure, for example larger wader species tend to fly at greater distances (Collop et al. 2016). The figure is also influenced by many other factors such as existing use by the public, seasonality, the activity being undertaken, size of flock and nervousness of individuals within. A design feature of the proposals is the combination of the S25A restriction that means access in not proposed to areas exposed as the tide falls and there is a 200m perimeter around much of the island beyond which there is no enhanced public access. The trail itself as a circular walked route restricts user and their dogs to a limited corridor and delineates an onward journey reducing the risk of disturbance as walkers will tend to pass by, much as they do already on much of this route that is on public rights of way. The new sections of access proposed by this project take the route further inland and away from the zone of influence. This circular trail, defined by a small corridor will not allow expansion for the potentially more disturbing leisure activities that require space to be undertaken.

It should be reiterated here that the above listed design features mean that there is the potential for the ECP proposal to have a positive consequence, i.e. a reduction in the threats to the qualifying features of the European sites from informal non-permissive access.

Trampling or other physical damage from recreational activities

There is only one location where a large area of sensitive intertidal habitat that is not subject to an exclusion of coastal access rights through Section 25A of the CROW Act. This is on the area of St Peters meadow in West Mersea. This is reviewed in detail in section D3.2B. At this location we have assessed any existing patterns of recreational use and predicted changes that are likely to take place as a result of the proposals.

Our default is to propose a route that avoids sensitive habitats altogether. In many cases we select an existing route which is part of the site fabric rather than part of the habitat we seek to protect. This limits the scope for damage to sensitive habitat by channelling the heaviest use away from it. In some cases it will also allow damaged saltmarsh to recover by offering a more attractive alternative to an existing path across it.

The design features of a trail generally on existing walked routes and the exclusion of coastal access rights over the majority of the saltmarsh and flats that has benefits of reducing disturbance to the wintering birds also has the same consequential positive benefit for the avoidance of trampling and other physical damage to the sensitive plant and invertebrate communities. The S25A access exclusion is year round, so protects these habitats during more sensitive growth stages in the spring and their associated invertebrate interest year round.

Loss of feature extent through installation of access management infrastructure

An outcome of the choice of route alignment is that the vast majority of the infrastructure can be installed without any risk of direct habitat damage either due to the location of the infrastructure or during establishment works.

Disturbance during installation works has not been identified as a potential likely significant effect. This is because there are few major works associated with the establishment of the trail around Mersea Island, and those required are along existing walked routes where there is a potential interaction with the important wildlife of the area. The works are generally minor in nature (installing individual posts) and require no heavy machinery or prolonged period of time on site. The operatives installing these structures present no more disturbance than those walkers on the trail already considered within this document and those that legitimately access many areas around this coastline already.

There is a cluster of more major works to be undertaken, namely the installation of footbridges near the road crossings for the Colchester Road and the East Mersea Road where the trail arrives on/leaves the island over The Strood tidal causeway. This area is busy with traffic and popular with holiday makers, especially when the causeway is flooded on higher tides. Operatives in this area, although outside of the site boundaries could potentially cause a disturbance but this would be no more than the existing levels from the confluence of the road systems and usual off site highway maintenance and farming operations.

Method statements by the local authority managing the works, in conjunction with NE, will ensure that any risk is avoided by, for example, stipulating safe routes for vehicle access, requiring the use of hand tools where more control is necessary and specifying timings for work to avoid the bird wintering and nesting periods.

The establishment of the trail will see existing infrastructure being retained, some being removed or replaced with similar and new infrastructure will be installed.

Much of the new infrastructure will not be within SPA or Ramsar site boundaries and that which is will be positioned so as to not lead to loss of sensitive habitat.

One of the new footbridges will be placed just on the boundary of the European sites but does not affect any habitat related to the special features. An area of farmland hedgerow and small scale scrub and a field access with some road planings.

The majority of the infrastructure will be either on the seabank, on areas of improved grassland or on compacted or surfaced tracks along existing access routes, where current

legal use has reduced the likelihood of interest features existing. New posts although placed on non-sensitive habitat within the designated sites, will in effect lead to a loss of area. The total loss of area however has been calculated as negligible.

The establishment works will be undertaken by Essex County Council, themselves a section 28G body and required to ensure they have undertaken reasonable steps to conserve and enhance the special features of sites of special scientific interest (SSSIs) (to include SPA, Ramsar etc). The works necessary to improve access will be reviewed as part of the establishment process and Natural England assent will be required, providing a further check on the impacts on the important wildlife and habitats of the area.

The mitigation measure outlined in Table 7 below allows the conclusion that there will be no loss of feature or supporting habitat beyond this figure as a result of this proposal, nor will the establishment works create a disturbance risk.

In addition, compliance with the mitigation measures outlined in Table 7 will ensure that surrounding sensitive habitat will not be damaged nor other qualifying features impacted during establishment works.

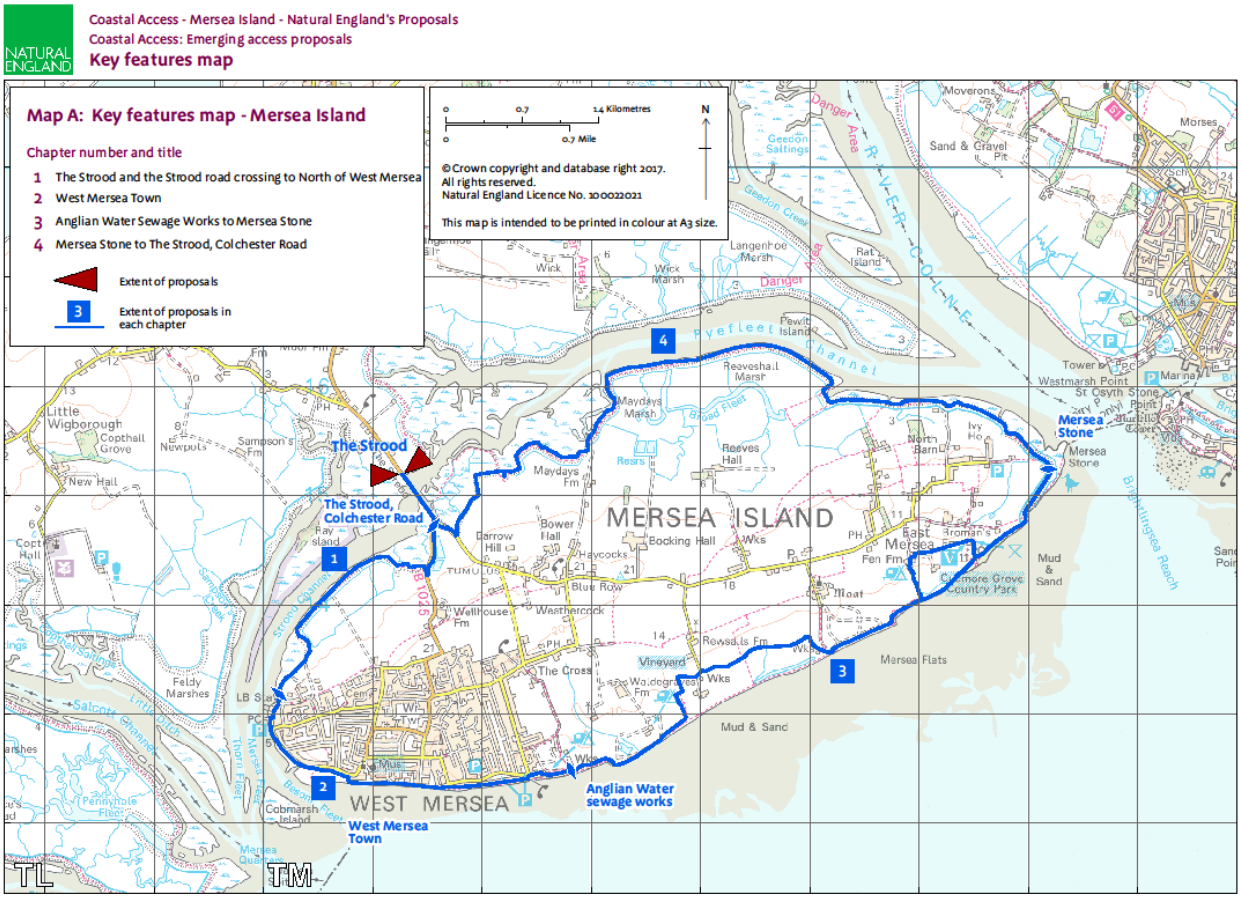
Table 7 summarises procedures designed into the project proposal to remove risks associated with infrastructure and its construction.

Table 7. Establishment works - mitigation measures

Site design	■ Local Authority to design establishment works access routes, storage areas and site facilities to minimise disturbance and other impacts on qualifying features and protect supporting habitat and invertebrate sensitive habitat. ■ Operator to conduct operations out of sight of roosting and feeding areas where possible. ■ Local Authority to obtain all necessary permissions and approvals
Timing of works	■ Local authority to plan schedule to limit disturbance risk. (most likely works to be undertaken during late summer) ■ Local Authority to specify a period of low sensitivity at each construction site, based on likely departure and arrival dates of waterbird species that use it. ■ Operator to limit construction activities to daylight hours at all times of year. ■ Operator to limit the period of time the works take
Method	■ Operator to use hand tools where practicable. ■ As some works are to be undertaken on existing public rights of way, any temporary diversion (formal or informal) must consider site sensitivities, preferably directing the public further away from sensitive features – i.e. generally inland from the existing route (where local conditions allow). ■ Local Authority to ensure any on site operatives are aware of the site sensitivities and legal basis for need to protect site features and to adhere to design brief.

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

In this part of the assessment we consider the coast on Mersea Island as a series of shorter lengths corresponding to the coastal access reports for the stretch where establishing the England Coast Path and associated coastal access rights might impact on Qualifying Features of a European site. Each length of coast is considered in a separate subsection (D3.2A, D3.2B etc). In each subsection we explain how the detailed design of our proposals in the relevant report or reports takes account of possible risks.



The qualifying features occurring at each of these shorter lengths of coast are shown in Table 8 below.

Table 8. Summary of key locations

Coastal Access Report	Relevant risks			
	Disturbance of breeding waterbirds	Disturbance of feeding or resting water birds	Trampling or other physical damage from recreational activities	Loss of feature extent through installation of access management infrastructure
1.The Strood and the Strood road crossing to north of West Mersea		✓	✓	✓
2. West Mersea Town	✓	✓	✓	✓
3. Anglian Water sewage works to Mersea Stone	✓	✓	✓	✓
4. Mersea Stone to The Strood, Colchester Road	✓	✓	✓	✓

To inform our assessment of risk, we have reviewed how relevant sections of coast are currently used for recreation, how this might change as a result of known factors (such as planned housing), and how the established patterns and levels of access might be affected by our proposed improvement to access. The predictions we have made from this work are informed by available information, including reports commissioned to support development of the local plan, on-line mapping and aerial photography, travel and visitor information, site visits and input from local access managers. The findings of this work are incorporated into the assessments below.

D3.2A The Strood and the Strood road crossing to north of West Mersea

Access proposals
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/622134/mersea-island-chapter-1.PDF

Access Baseline:

This proposed section of ECP is the shortest on Mersea Island but one of the most popular in current use.

This section of the route uses existing Public Rights of Way (PRoW) for the majority of the section and will create new access to the east of the Colchester Road in the northern part to create a new walked line off the main road where traffic is a safety concern.

There is a junction between the alignment around the island and the link across the Strood to the mainland and the adjoining Salcott to Jaywick stretch of the England Coast Path. The route uses the pavement along the western side the road across the tidal causeway on The Strood, although a pavement exists on both side of this road. The Strood forms the boundary of the two SPA relevant to this stretch where they abut in the Strood/Pyfleet channel. The pavement is at the same level as the road and therefore subjected to the same tidal inundations preventing access during the highest tides (twice every day for about a week once a month).

New formal access will be created in the following situations;

- At Wellhouse Farm to provide a safe route from one section of the seawall leading south to West Mersea and the access point onto the seawall leading east along the north of the island.
- Approximately 150m of Public Footpath at Firs Chase will have surface improvements to encourage walkers to use the path rather than stray onto the saltmarsh where trampling may occur.

Seaward spreading room

A Section 25A exclusion will therefore be applied to all saltmarsh and mudflat.

Existing levels of use:

The main access on to this stretch is on pavements and seawalls as far as the town of West Mersea where one circular route is available using an existing PRoW north of Firs Chase caravan park. Access at the northern end is available from the road where a series of small layby offer parking for at least 20 vehicles.

This is a very popular stretch for walkers – especially dog walkers from the town of West Mersea and features in a series of short local circular walks promoted by the local authorities, https://www.visitcolchester.com/dbimgs/Mersea%20Walks.pdf

Local use accounts for the majority of visits to this section of the path. Colchester Borough Council found that the majority of users (70%) interviewed at The Strood lived on Mersea Island and had travelled less than 5 miles to make their visit.

Public transport onto the island is limited and the majority of visitors from further afield will arrive by car and park in and around the town of West Mersea, at Cudmore Grove or the caravan parks on the south coast offering public parking.

Local residents (from Coast Road Cottages north of Dabchicks Sailing club) report up to 200 walkers a day pass by their homes on Coast Road at peak times of the year in the summer.

People access the sandy areas of the beach and may use the saltmarsh at Firs Chase when it is dry (observed during site visits and noted by local residents).

Land based activities undertaken on this section are walking, birdwatching photography, dog walking and running and online video's evidence the area being used informally by personal pleasure craft and inflatables.

There is little to attract a walker off the seawall down steep slippery slopes into mud.

Mersea Island is a popular destination for staying visitors. Most of the visitor accommodation is along the southern side of the island in caravan parks and holiday lets. At its height during the summer, based on the available visitor accommodation, it is estimated that the influx of visitors more than doubles the local resident population of 7,000. This means there is a strong seasonal fluctuation in access levels between the summer holiday period and other times of year.

Colchester Borough Council Emerging Local Plan states that the Borough's population has grown by 15.6% between 2001 and 2014

Low level increase in levels of use on the Trail

The area is a visitor destination all year round with a strong seasonal increase in visitor numbers during the summer months.

Overall, we predict there could be a low increase in the level of use of this section of the coast path as a result of our proposals.

The reasons for this are:

- We have proposed several improvements to the existing path, including better signage, improvements to the surface and drainage of the PRoW on Firs Chase saltmarsh and a new off-road route east of Colchester Road. Although these improvements will make the route more attractive and convenient for local users it is unlikely that it will significantly increase the number of visitors over the current high baseline use. It will make the Trail more convenient and easier to use, but many users will be those currently forging their own desire line routes to avoid problems in the current network.
- Walks on the island are promoted by local and nationally by walking and tourism websites. As part of the network of National Trails access will increase to the England Coast Path. The majority of new users will be seasonal (summer, longer day better weather walkers, attracted to open facilities that are otherwise closed out of season – such as camp sites and accommodation). With a strong current baseline this project will not increase usage by a significant degree, with a proportion of those new visitors being one time visitors passing through to complete the National Trail sections.

Negligible change in levels and patterns of use within the coastal margin

The majority of the Coastal Margin along this section of coast comprises mudflats and the saltmarsh at the northern and southern ends of this subsection. We have proposed that no new access rights are created over these areas on the grounds that they are unsuitable for public access. Note that use of the saltmarsh by permission of the owner of the caravan site at Firs Chase will be unaffected by the proposed exclusion.

Improvements to the path surface at Firs Chase will reduce the current tendency for informal diversions to develop over the saltmarsh.

Landwards of the trail, the Coastal Margin will only include small areas of land between the path and borrow dyke or adjacent field margin where agreed with the landowner. This means that the extent of spreading room along this section of the route will be limited to small areas on either side of the trail.

These areas are already easily accessed from the existing path, however; there may be a small increase in use, for example by walkers stopping to rest on the small beach at the southern end of this section or in the folding north of Firs Chase saltmarsh.

Environmental Baseline:

Because this section includes the crossing of The Strood causeway it has the potential to impact on features of both the Colne SPA and the Blackwater SPA. The areas is characterised by the typical estuarine habitats of the Essex coast, with its mix of river sediment flats and saltmarsh, the island itself offering some protection on the mainland facing side from the effects of storms coming in from the open sea.

The saltmarsh is most extensive at the northern and southern ends of this subsection. In the north it provides roost sites at high tide for overwintering and passage wildfowl and waders. At low tide the exposed mud provides substantial feeding habitat for wading birds. A further consideration is the role of saltmarsh as a buffer between the exposed mud and the existing footpath following the sea wall, helping to reduce disturbance levels for wintering wildfowl and waders when feeding on exposed mud.

Risk Analysis:

Risk	Analysis
Disturbance of breeding waterbirds	The habitat suitable for breeding ringed plover and little tern is not found along this section. Risk is not created by this project. NO RISK.
Disturbance of feeding or resting water birds	There is no access to the saltmarsh and flat from this project. Users of the Trail alignment walking on the existing public rights of way have the potential to cause disturbance. There is a seasonal interaction, with the main risks to feeding and resting birds being in the winter months, when the user numbers of the trail are at their lowest. The increase of users from this project above those utilising the existing network is negligible during the winter. Risk is not created by this project. NO RISK.

Trampling or other physical damage from recreational activities	The broad habitat type found along this section is the saltmarsh and the intertidal habitats. The saltmarsh and flats have no access proposed by this project, NO RISK.
Loss of feature extent through installation of access management infrastructure	Fewer than 3 waymark posts are required along this stretch, on the line of the existing walked route on the seawall and as such unlikely to be areas with sensitive vegetation. A site survey will be undertaken as part of the construction design to guide the precise location. NEGLIGIBLE RISK

D3.2B West Mersea Town

Access proposals
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/622135/mersea-island-chapter-2.PDF

Access Baseline:

This section of the route uses public rights of way (PRoW) and highway for the majority of the section.

There is no new walked route being created, however the proposals will formalise some well used informal routes. There will be modest trail improvements such as signage and way marking to guide the public on their onward journey.

The trail uses public rights of way and footways as far as St Peter's Meadow (MSI-2-S001 to MSI-2-S023) from where it follows existing walked lines and PRoW on the beach.

The proposed route from Monkey Beach to Seaview Caravan Parks (MSI-2-S029 to MSI-2-S036) follows the PRoW on the beach for most of the beach sections, creating new access slightly higher up the beach where high tides may cover the existing PRoW.

New formal access will be created in the following situations;

- where the existing PRoW on the beach is frequently inundated at high tide and a new access route is created above the mean high water (MHW) line
- where existing, informal walked routes are formalised
- where the pavement through the town is privately owned

Seaward spreading room

The creation of Coastal Margin (new access) will encompass fishing sheds, oyster fishermen's sheds, boatyards, a dock, and sailing clubs and restaurants. The area comprises Village Greens, a public pontoon, restaurants and car parks. It is heavily used already and the public can judge areas more suitable for access easily from the existing access patterns. Some of these land types are excepted and will not have access.

The saltmarsh and mudflats will all be excluded using section 25A. This exclusion will continue along the section from its start beyond the saltmarsh where house boats are moored, to the creek dividing St Peter's Meadow saltmarsh. However areas that are designated as Village Green will not be excluded from the Coastal Margin and remain accessible to the public.

Some land types and land use activities, such as buildings and curtilage, and gardens will be excepted land categories where the access rights do not apply.

A year round Section 24 land management direction will apply to the Oyster Sheds on Coast Road and Section 24 direction will apply to Peter Clarks Boatyard to restrict access at certain times when hazardous operations take place.

Existing levels of use:

There is good access to this entire stretch as it passes through the town of West Mersea and along a public beach. There are a number of small public car parks available in the town and many establishments also have their own customer parking.

West Mersea is a popular destination for tourists and locals with several restaurants and bars, boat yards and sailing clubs.

Activities taking place on this stretch include visitors using the beach, walkers, birdwatchers, photographers, runners, windsurfers, dog walkers, sailors and canoeists amongst others.

The beach seaward of the trail has been accessible for many years. The beach has many beach huts and is used year round.

St Peter's Meadow and Monkey Beach (saltmarsh, shingle beach and green space) are part of the village green and are currently fully accessible by right, but not necessarily conducive to access (wet reed bed, thorny and spiteful vegetation). A boardwalk along the line of the public right of way across the marshes was built some 10 years ago to reduce the impact of trampling on the saltmarsh and in early 2022 is closed for restoration.

The levels and patterns of access are unlikely to be changed under the ECP proposals.

The boat yards, car parks, pontoon, slipways and Stonehill hard (Village Green) are accessed daily by boat launches, fishermen, workers, local and tourists. This is a busy town hub throughout the year with its mix of residences, businesses and leisure facilities.

The mudflats are flooded at high tide. Despite being relatively hard mud in places there is little appeal to walkers to venture out to the water's edge as the mud is sticky and there are areas of soft mud/sand.

Visits may take place at any time however there is a large seasonal fluctuation with large numbers of visitors in the summer. There are a number of popular events through the summer that bring several thousand visitors to the town.

There is a trend of increasing tourist numbers on Mersea Island and visitor numbers in the summer are said to double the local resident population of 7,000. Most of the visitor accommodation is along the southern side of the island in caravan parks and holiday lets.

Negligible increase in levels of use on the Trail

Since West Mersea town is already a popular destination for visitors as well as maintaining a year round residential population and with commercial and leisure businesses we do not expect that our proposals will make a noticeable difference to the overall visitor numbers.

In places we propose to improve signage and way marking of the coast path through the town and this may lead to some small scale change in patterns of use as people walking along the shore and through the town will be more likely to follow the route we have suggested than other existing paths.

No increase in levels of use on the Margin for the stretch as a whole. There is no reason to believe there will be any noticeable change in access levels or patterns to the town beach or foreshore as a result of our proposals.

No new access rights will be created to the mudflat and saltmarsh west of St Peter's Meadow and we do not expect there will be any change in use of this area that remains uninviting to the significant majority of visitors

Access to St Peter's Meadow will be unaffected by our proposals.

See the Report for full details of restrictions and exclusions.

Environmental Baseline:

This section is within the Blackwater Estuary SPA and Ramsar site, and the Essex Estuaries SAC. The boundaries for all three cover the intertidal areas off the main shorefront of the town, to include the areas fronted by many of the water-based businesses such as the boatyards and oyster fisheries/restaurants with their outdoor seating. They cover the St Peter's Well and Monkey Beach village green area, then the boundary stops for any further intertidal designation.

The Section 25A restriction will apply to the saltmarsh and flat areas that are not currently legally publicly accessible as a village green.

The saltmarsh and flat immediately adjacent to the town do not hold significant numbers of wintering birds and offer no roost sites, no doubt in part due to the proximity of the businesses and the popularity of the area, and the houseboat moorings within the saltmarsh. Also in some parts the areas are not expansive being around 100m from the low water mark to the hightide zone that reaches the coastal frontages of the businesses and the public road. The islands off this coastal zone offer the greatest opportunity for undisturbed feeding and roosting.

St Peters Meadow is a small area of salt marsh covering less than a hectare and is subject to some trampling despite being wet under-foot. A survey transect carried out in 2015 (Abrehart Ecology 2016) [18] found four nationally scarce species: golden samphire, perennial glasswort, small cord-grass & shrubby sea-blite. A boardwalk crosses the saltmarsh in the line of the public right of way at the western end linking the mainland to the spit of beach that has formed beyond the saltmarsh.

The shingle beach flora is currently considered to be in unfavourable condition due to trampling in addition some marked tracks across the saltmarsh are visible where people have chosen not to use the boardwalk

Risk Analysis:

Risk	Analysis
Disturbance of breeding waterbirds	The habitat potentially suitable for breeding ringed plover and little tern is found on the beach at St Peter's Well. This is an extremely popular beach area, adjacent to the main town and overlooked by businesses and residential properties and forms part of the village green accessible area. Coastal access rights will not increase visitor pressures as access is already tolerated and the expected increase from the ECP is insignificant. The commencement of public access rights would allow for an access restriction to be formalised if any voluntary arrangements to protect nest sites needed strengthening. Risk is not created by this project. NO RISK. (possible benefit)
Disturbance of feeding or resting water birds	There is no access to the saltmarsh and flat from this project expect for the village green accessible area at St Peter's Well. Users of the Trail alignment walking on the existing public rights of way and pavements of the town have the potential to cause disturbance. There is a seasonal interaction, with the main risks to feeding and resting birds being in the winter months, when the user numbers of the trail are at their lowest. The increase of users from this project above those utilising the existing network, the businesses and leisure facilities of this bustline seaside

	town is negligible during the winter. Risk is not created by this project. NO RISK.
Trampling or other physical damage from recreational activities	There are two broad habitat types, the saltmarsh and the habitats of sand/shingle. Except for the publicly accessible village green the saltmarsh has no access proposed by this project, NO RISK. The sand/shingle vegetation is found on the beach fronting the saltmarsh at St Peters well. This is an extremely popular area, part of the village green and coastal access rights will not increase visitor pressures as access is already tolerated. The expected increase from the ECP is insignificant. The vegetation is in many areas dense and thorny or wet reedbed and uninviting. The commencement of public access rights could allow for an access restriction to be formalised if any voluntary arrangements needed strengthening, if this was acceptable with the village green access rights. Risk is not created by this project. NO RISK. (possible benefit)
Loss of feature extent through installation of access management infrastructure	No access infrastructure is to be erected within the boundary of the SPA, Ramsar etc. NO RISK

D3.2C Anglian Water sewage works to Mersea Stone

Access proposals
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/622137/mersea-island-chapter-3.PDF

Access Baseline:

A number of walked lines, formal and informal, already exist along this stretch.

The proposed route for the England Coast Path is along the existing PRoW on the seawall and beach for much of this section, and formalises other walked lines in between.

Rollback

The entire subsection will have rollback proposed due to the dynamic nature of the coast and the rates of erosion seen along this subsection.

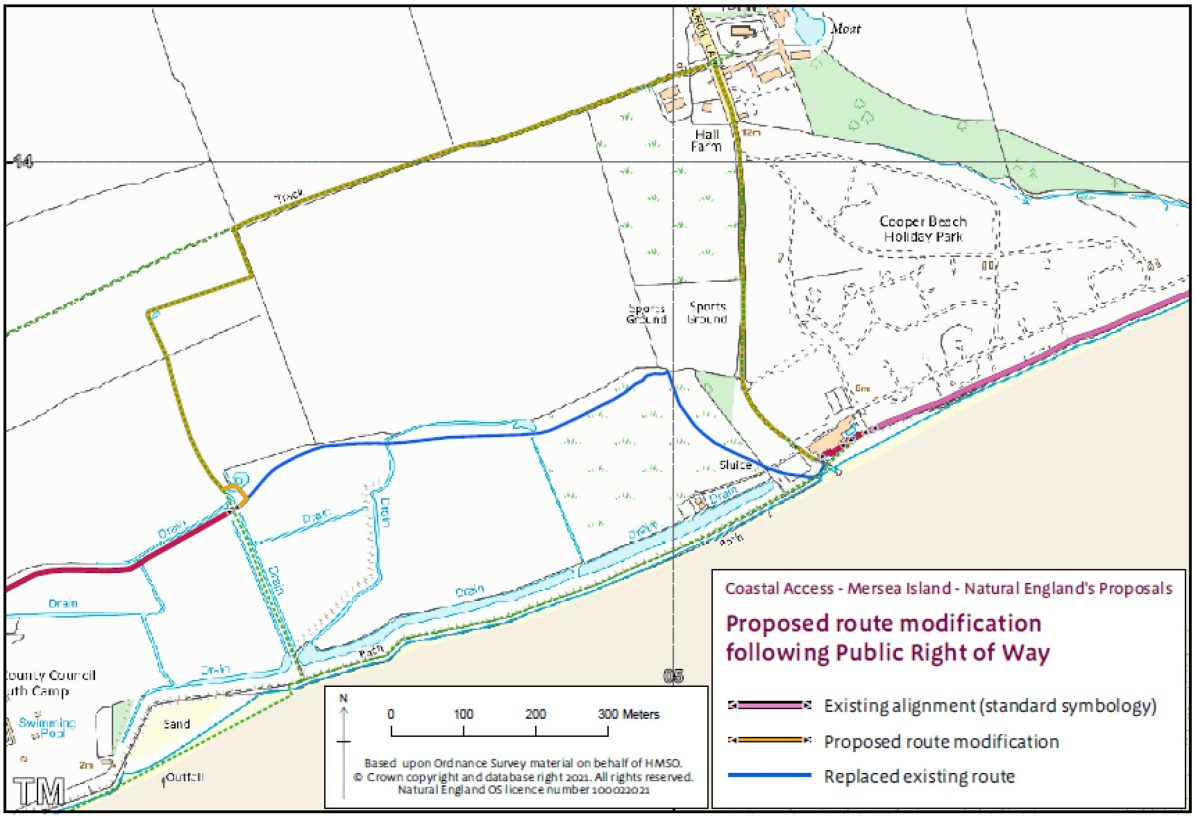
New access

New access is created as follows;

- Inland of the low cliffs between Waldegraves Caravan Park and the Youth Camp, along a field edge.
- From Rewsalls Lane to the public right of way that runs north south on the eastern boundary of the youth camp and sailing lake. The new access is inland of these developments.
- Between Coopers Beach Caravan Park past Fen Farm to the tarmac'd path at Cudmore Grove Country Park. The path will pass higher up the beach than the existing PRoW in several places, then through the 'Dog Walking Field' at Fen Farm onto the cliffs at Cudmore Grove. As a result the new route will cross areas of shingle and sand.

Changed access since published proposals

A variation report will accompany the published proposals to propose a revised alignment on this section of the England Coast Path. This HRA considers this revised alignment as the original proposed route is no longer available having been proposed on a seawall that has collapsed and resulting in tidal inundation of the land that was once behind. The changed access proposal creates a more inland alignment than previous, aligned for the majority of the distance on existing public rights of way. It will run on the original proposed alignment, with some new access as described above from Rewalls Lane to the public right of way. It then takes a more inland route on higher ground on arable fields and farm tracks to join the access road for Coopers Beach holiday park in the area of East Mersea church. On this section through the farmed land users of the route are shielded from the developing habitat that is being reclaimed by the sea by tall, 2m wide established hedgerows.



The Youth Camp will be excluded using a Section 24 exclusion, for land management purposes.

Between the boundary of the Youth camp and the area being newly inundated a new leisure business, Mersea Boating Lake, has been recently developed, including the creation of a large (c2ha) lake not showing on OS maps.

Optional Alternative Route

At Fen Farm the route will cross a small creek which drains the area of saltmarsh and reed bed behind a shingle ridge. The shingle and beach shape are very dynamic and the creek alters location frequently. At very high tide events it may be too wide to step over and too deep to step across.

It was considered appropriate to secure an Optional Alternative Route around the landward side of the caravan parks. Walkers can use the north-south PRoW on the western side of Fen Farm Caravan Park, walk through the landward edge of the Away resorts and enter Cudmore Grove at a new entrance point before returning to the cliff top to pick up the coast path again.

The coast path follows the beach south of Fen Farm – although not on the line of the PRoW which is now some way out to sea. New access will be created across the 'dog walking field' of Away Resorts Caravan Park and on to the cliffs at Cudmore Grove. Spreading room will only be created seaward of this strip.

Cudmore Grove Country Park is a well-managed site belonging to Essex County Council. It is a popular visitor destination for walkers, families, and naturalists alike and a number of events take place there throughout the year. The public has access to much of the Country Park but is not allowed onto the grazing marsh fields, to prevent disturbance to waterbirds. The route will formalise an existing walked line along the top of the cliffs at the western end of the park and follow the existing PROW through the eastern part (which falls with designated areas). By siting the route on the cliff top rollback can be triggered by future changes to the shoreline.

Seaward of the trail is mostly beach and mudflat. The mudflat is flooded at high tide as far as the seawall in most places.

Seaward spreading room

The mud on the mudflats contains shingle in places making it more accessible than in other parts of the island. However it contains pockets of softer, sticky mud, where channels are covered and bait diggers pits have been filled in. The top layer of softer mud has been eroded over recent years to expose the heavier London Clays.

Section 25A exclusion on mudflats

The mudflat has been assessed and will be excluded using Section 25A on the grounds of its unsuitability for access from the Anglian Water sewage works, just east of West Mersea town (see maps in Section 5), where mud and gravel presence ends to Mersea Stone.

Good existing access over much of the route. New access will be created for the remainder in response to changes to the coastline as a result of erosion.

The main access points for this section are Public Rights of Way joining at the Anglian Water Sewage Works, the Youth Camp, Rewsalls Farm, Coopers Beach, and Fen Farm and Cudmore Grove Country Park at the eastern edge of this section. However many of these rights of way do not service much of a local population as they do not link to towns or villages and with the exception of Cudmore Grove they don't offer public car parking. Most access is from the residents of the static caravan parks who may undertake a local walk or exercise their dog and are perhaps generally unintrusive during the winter months. The Island can double its population in summer and this is concentrated at the caravan parks along this coastline, where each caravan can reasonably accommodate a family, new to the area, seeking new experiences and exploring. This creates a significant seasonality to the possible impacts from access.

In addition to the rights of way, there is also direct access to the foreshore from the various caravan parks along the coast.

There are existing Public Rights of Way (PRoW) running parallel with the coast along all of this stretch connecting the various caravan parks to West Mersea town and Cudmore Grove Country Park.

Activities undertaken on this section are walking, birdwatching photography, dog walking, running and bait digging as well as the classic beach holiday pursuits (sunbathing, sandcastles, beach games). Some cyclists and horse riders use the public footpath network.

The mudflats are flooded at high tide, and form part of the Colne Estuary National Nature Reserve. Despite being relatively hard mud in places there is little appeal to walkers to venture out as the mud is sticky and there are areas of soft mud/sand where bait diggers have back-filled holes. Some shoreline fishing takes place.

Much of the access in this stretch follows existing walked routes or existing rights of way. Many of which followed the same line a few metres apart. Overall a well used area where many users are not constrained to following the line of a path, but wander along the beach before returning on a similar meander. Change of usage on the whole subsection is considered to be small, main increase from those using the Coast Path to walk the island circuit or to find a way to bridge gaps in the eroded network to access nearby public facilities (clubhouse/bar at Coopers Beach, play area at Cudmore Park).

The established routes along the beach and seawall/cliff top is well used and little change in use is expected. Where possible, walkers tend to use the higher parts of the beach and favour this over the vegetated land when the public path is slightly inland.

This may not result in much change in usage, however, as the current observed behaviour is to walk as high up the softer substrate of the beach as possible at high tide rather than along the compacted and bound vegetated areas just inland from the beach.

For the new section of changes access proposal, this may see an increase in use as a means of continuing in a westwards direction from the population hubs of the caravan parks. It will create a link directly to the vineyard/brewery/tearoom tourist attraction at Rewsalls Farm and to the Mersea Boating Lake with its leisure activities and facilities. As the dilapidated seawall further deteriorates the area of land it protected that is now flooded on high tides will gradually merge into an expanse of tidal mud, cutting off a foreshore route for casual walkers. This may make the ECP alignment more popular. This may be during the summer season as the local population is significantly enhanced and the visits to these attractions peak for the summer season.

An Optional Alternative Route (OAR) will be created on the landward side of the Fen Farm and Away Resorts caravan parks, (using some existing public rights of way and a new access route through the landward side of the Away Resorts caravan park). This OAR will be available at times when the high tide prevents walkers from walking on main ECP trail along the beach in front of (seaward) of the caravan sites, saltmarsh and reedbed habitat. Use of this route will be higher when visitor numbers to the area are higher in the summer months but will have some localised use when winter storms reshape the beach and at times of exceptional high tides. It is also only likely to be used by those wishing to undertake an onward journey to get to somewhere else, rather than by those who are wandering around the beach and meandering back whence they came when they meet an obstruction.

No increase in levels of use on the Margin

The land seaward of the proposed route of the trail from Rewsalls Farm to Coopers Beach Holiday Park will become part of the coastal margin and subject to coastal access rights. This is a mix of arable land (excepted), buildings and curtilage (excepted) and the newly forming and existing intertidal zone. This may encourage some people to access this area, however as the experience from the wider intertidal zone reflects, the public are unlikely to utilise this area just because coastal access rights exist over it. The area is unattractive to the casual user, the majority being summer visitors looking for tourist pastimes rather than walking across intertidal mud. The limited means of accessing this wider area will also reduce the numbers who would try. The principal population resource will be from the caravan parks on the eastern side, where the clubhouse bar and restaurant is immediately adjacent to the area. Works to the seawall have created a point feature viewing area the public may utilise to gain views of the expanse, but as with the majority of the intertidal mud, few will venture into it.

Current usage of the mudflats by experienced bait diggers and occasional dog walkers is unlikely to be affected by our proposals.

Environmental Baseline:

The extensive intertidal mudflats seaward of the Trail along much of this section are important feeding and resting areas for passage and overwintering waterbirds. In the 1993/94 winter, birds using the Mersea Flats at low tide were counted and the numbers compared with totals for the whole of the Colne Estuary at the time. The flats held 80% of the knot and golden plover on the whole estuary, 70% of the cormorants, over 40% of the bar-tailed godwit and sanderling, and over 20% of four other wader species (Ecosurveys Ltd 1994, cited in Black 2012).

Around low tide, the width of the exposed flats allows birds to feed undisturbed by people and dogs walking along the beach. But at some states of the tide only a relatively narrow width of mud is above water, so birds must feed closer to the beach and are vulnerable to disturbance. This risk is increased because there is no saltmarsh between the Trail and the flats, and in places the mud is firm enough for people and dogs to walk out some distance. There is only one known high tide roost adjacent to the flats: on a raised area of sand/shingle near the Youth Camp.

The grazing marsh at Cudmore Grove Country Park supports concentrations of farmland feeding waterfowl including brent geese and wigeon and smaller numbers of other wildfowl. It is also an important high tide roost area.

In contrast, the grazing marsh between Cooper's Beach and the Youth Camp (outside the designated site boundaries) was until recently ungrazed and of limited interest to wintering bird populations. However the seawall has recently collapsed in several locations, and water enters the previously landward area at hightides creating new and developing conditions for a new intertidal zone and fringe habitat. The sites' future interest is not known as it is in a transition phase. As an early succession zone, but outside of the designated area, it is highly likely to present as functionally linked land, particularly as it is relatively secluded and even with a static caravan park and its clubhouse (bar, restaurant, evening entertainment) adjacent the area would appear to be undisturbed by holiday makers and residents.

For about 800m - between Cooper's Beach caravan park and the western boundary of Cudmore Grove Country Park there is a strip of shingle and sand with strandline and saltmarsh scrub communities and some areas that could otherwise be suitable for breeding ringed plover if it was not on a public right of way or utilised as a public beach.

Records suggest two small areas of saltmarsh habitat along this stretch. One block lies seaward of the shoreline properties at Fen Farm (static) Caravan Park and occupies an area of lower ground fronted by a raised shingle beach before opening into the wide expanse of the intertidal mudflats. Except on extreme high tides, this areas of saltmarsh is inundated by water entering a shallow inlet creek at the eastern end that feeds water around and into the rear. It is important as a remnant area of saltmarsh flora and habitat for invertebrates, but due to its small size, location and tidal inundations is not significant for overwintering birds. The other recorded block of saltmarsh habitat is noted to the southern fringe of the Mersea Stone spit. This spit is an active coastal form and saltmarsh is becoming replaced with shingle and no longer appears to be a significant feature in the area previously recorded. (personal observation March 2022).

The beaches and intertidal zone are part of the Colne Estuary National Nature Reserve.

Risk Analysis:

Risk	Analysis
Disturbance of breeding waterbirds	The substrate suitable for breeding ringed plover and little tern is found along this stretch, but its extent and location is likely to be a significant limitation. This is an extremely popular beach area, much of which is within the NNR, adjacent to the seasonal caravan parks and coastal access rights will not increase visitor pressures as access is already tolerated and the expected increase from the ECP is insignificant. The commencement of public access rights would allow for an access restriction to be formalised if any voluntary arrangements needed strengthening. Risk is not created by this project. NO RISK. (possible benefit)
Disturbance of feeding or resting water birds	There is no access to the saltmarsh and flat from this project. Users of the Trail alignment walking on the existing public rights of way and seashore have the potential to cause disturbance. There is a seasonal interaction, with the main risks to feeding and resting birds being in the winter months, when the user numbers of the trail are at their lowest. The increase of users

	from this project above those utilising the existing network is negligible during the winter. Risk is not created by this project. NO RISK. The revised alignment between the youth camp and Coopers beach holiday park passes within functionally linked land utilised by brent geese. The Trail generally follows an alignment that screens users behind a tall, thick hedge (effective in winter) along an existing right of way in arable fields (land used by geese when favoured crop in rotation, so not every year). Where not screened, the route is on an existing right of way that passes in the centre of one of the fields. As a winter interaction, with low levels of ECP users at this time a negligible risk is being created by this project. NO RISK
Trampling or other physical damage from recreational activities	There are two broad habitat types, the saltmarsh and the habitats of sand/shingle. The saltmarsh/flat has no access proposed by this project, NO RISK. The sand/shingle vegetation is found along the beachfront. This is an extremely popular area, much within the NNR, fronting the caravan sites and coastal access rights will not increase visitor pressures as access is already tolerated. The expected increase from the ECP is insignificant. The commencement of public access rights would allow for an access restriction to be formalised if any voluntary arrangements needed strengthening. Risk is not created by this project. NO RISK. (possible benefit)
Loss of feature extent through installation of access management infrastructure	Fewer than 5 waymark posts are required along this stretch, on the line of the existing walked route and unlikely to be areas with sensitive vegetation. A site survey will be undertaken as part of the construction design to guide the precise location. NEGLIGIBLE RISK

D3.2D Mersea Stone to The Strood, Colchester Road

Access proposals
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/622139/mersea-island-chapter-4.PDF

Access Baseline:

This stretch will use existing public rights of way for the majority of the subsection and secures new access for a 900m section where a permissive footpath will be replaced by new access on the seawall at the western end, and a small section of walked route on the eastern end will be formalised. This will create continuity with the rest of this section.

A new, clearly visible, access point from East Mersea Road onto/off the seawall will be created, which will reduce the numbers of walkers accessing the saltmarsh to the north of this point.

There will be modest trail improvements such as scrub clearance, resurfacing, signage, way marking and consideration given to the need to enhance existing educational information boards.

The coastal margin seaward of the trail, composed of saltmarsh and mudflat, will be excluded using a Section 25A direction due to its unsuitability for public access.

Good existing access

There is an existing public footpath along most of the seawall and where no formal access exists public use is tolerated.

The main access points for visitors to this part of the coast is from the car park at Cudmore Grove Country Park, which has over 27,000 visitors per annum (Country Park Manager, pers. comm.) and for those that have used the laybys near the Strood, although the access to this stretch on the eastern side of the roads is much less utilised than that to the western side and the journey to West Mersea.

The adjoining footpath at the western end of this subsection extends out into the intertidal saltmarsh and flats. Whilst the rights still exist, and will be unaffected by the S25A direction, the route is almost impossible to follow (being intertidal and on soft substrate). Two PRoWs join the seawall – one at Reeveshall Marsh at the end of Shop Lane and one at Golf House at the eastern end of the island.

There are limited opportunities for circular walks in this part of the island other than at the eastern end, close to the Country Park, which limits the amount of users on the existing network. The area is also lacking in significant development and settlement with a limited local population that would be using the existing network.

This section is the least used on Mersea Island and few walkers are seen on this stretch.

Activities undertaken on this section are walking, birdwatching photography, dog walking some cycling and running. Very few people detour from the path. The saltmarsh and associated mudflats are flooded at high tide and threaded with deep creeks, making them unattractive to walkers.

There are wildfowling activities on the broad saltmarsh at the western end close to the Strood and occasional samphire picking.

There is a strong seasonal pattern of visits to Mersea Island, and visitor numbers in the summer are said to double the local resident population of 7,000. Most of the visitor accommodation is along the southern side of the island in caravan parks and holiday lets and so has little or no impact on the north of the island.

Small increase in levels of use on the Trail

The established path along the seawall is mostly in good condition and is well signposted. It is clear to follow. A short section of walked route at the western end will be formalised onto the sea wall.

It is expected there will be a small increase in the number of people using the coastal path, due to it becoming a National Trail. The section of path from Mersea Stone to the Strood is likely to remain the least visited on Mersea, as the long (6km) un-interrupted linear walk will only appeal to a limited number of long distance walkers.

Circular walks are available at the eastern end of this section, close to the Cudmore Grove Country Park. This is already one of the major attractions on the island and our access proposals are unlikely to make a noticeable difference to visitor numbers here.

The England Coast Path proposals are not likely to significantly alter the current level and pattern of use of the paths and foreshore on the north of the island above or beyond the expected low level of local growth in tourism being promoted by the local council. This tourism increase will be seasonal

No increase in levels of use on the Margin.

Along most of this section the seawall is adjacent to the saltmarsh and flats all of which is considered unsuitable for access and will have Section 25A exclusions.

The Mersea Stone shingle spit, which is already heavily used by the public, will not have a section 25A exclusion as it is not saltmarsh of flat. This area is popular with visitors to the Country Park and has a right of way within part of it. A set of steps from the low level seawall encourage visitors to wander out on to the spit and many walk around the soft substrate/beach. A small WW2 structure creates an interest feature to draw visitors away from the beach. The vegetation in the centre of the spit is uninviting for access (being thorny and dense). The spit is an active landform, extending out into the estuary over recent years and is part of the Colne Estuary National Nature Reserve. Walking, beach pastimes and foreshore fishing take place around the spit, whilst it also hosts the landing point for the popular summer season Brightlingsea Ferry. Use of the spit is year round, peaking in the warmer months when the island population increases.

The Park management does, from time to time, erect low rope fencing to protect nest sites.

Environmental Baseline:

Between Mersea Stone and the Strood the route runs along the top of seawalls beside the Pyefleet Channel. The adjacent saltmarsh and mudflat are important roosting and feeding areas for passage and overwintering waterbirds at all states of the tide. Just inland of the trail, open farmland with arable fields, grazing marsh, ditches and a fleet provide supporting habitat for farmland and freshwater feeding waterbirds and other sensitive bird features. At the eastern end of this section the Mersea Stone spit supports plant and bird features associated with sand and shingle, while landward there is an important area of grazing marsh at Cudmore Grove Country Park.

The spit is an active landform, changing shape and extent. It also forms part of the Colne Estuary National Nature Reserve. It experiences high levels of public access and the wildlife features of the spit tend to be those that tolerate a level of public access and the environmental pressures of a coastal existence. The main interests are the spits floristic interest and associated invertebrates.

Risk Analysis:

Risk	Analysis
Disturbance of breeding waterbirds	The habitat suitable for breeding ringed plover and little tern is found on the Mersea Stone spit. This is an extremely popular beach area, within the NNR and coastal access rights will not increase visitor pressures as access is already tolerated and the expected increase from the ECP is insignificant. There is currently some effort to fence any nesting attempts to protect them from the public and dogs. The commencement of public access rights would allow for an access restriction to be formalised if the voluntary arrangements needed strengthening. Risk is not created by this project. NO RISK. (possible benefit)
Disturbance of feeding or resting water birds	There is no access to the saltmarsh and flat from this project. Users of the Trail alignment walking the seawall on the existing public rights of way have the potential to cause disturbance. There is a seasonal interaction, with the main risks to feeding and resting birds being in the winter months, when the user numbers of the trail are at their lowest. The increase of users from this project above those utilising the

	existing network is negligible during the winter. Risk is not created by this project. NO RISK.
Trampling or other physical damage from recreational activities	There are two broad habitat types, the saltmarsh and the habitats of sand/shingle. The saltmarsh has no access proposed by this project, NO RISK. The sand/shingle vegetation is found on the Mersea Stone spit. This is an extremely popular area within the NNR and coastal access rights will not increase visitor pressures as access is already tolerated. The expected increase from the ECP is insignificant. There is currently some effort to fence any nesting attempts and this may reduce pressure on the vegetation and inverts. The commencement of public access rights would allow for an access restriction to be formalised if the voluntary arrangements needed strengthening. Risk is not created by this project. NO RISK. (possible benefit)
Loss of feature extent through installation of access management infrastructure	Fewer than 5 waymark posts are required along this stretch, on the line of the existing walked route on the seawall and unlikely to be areas with sensitive vegetation. A site survey will be undertaken as part of the construction design to guide the precise location. NO RISK A small sleeper bridge to be erected within the boundary of the SPA, on existing degraded habitat adjacent to a main road and where there is current informal access. NO RISK

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

Table 9. Assessment of adverse effect on site integrity alone

Risk to conservation objectives	Qualifying features affected	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained?	Residual effects?
The access proposals adversely impact ground nesting birds	Ringer Plover Little Tern	Route chosen for Trail avoids nesting habitat. Coastal margin allows for access to nesting habitats, but this will not increase above baseline Coastal access rights allow for formal restrictions if deemed necessary	Yes. No increase in impact above baseline (possible benefit in application of restrictions)	No
The access proposals adversely impact non-breeding birds.	dark-bellied brent goose; grey plover; black-tailed godwit; dunlin; redshank; waterbird assemblage	Route chosen for Trail avoids key feeding areas and roosts. Seasonal interaction and no significant increase above baseline Access to intertidal zones restricted Revised route screened from functionally linked land, seasonal use, existing access rights and crop rotation dependent.	Yes No access made available to intertidal zone. Limited chance for adverse interaction within one specific area of functionally linked land (other areas unaffected by proposals	No
The access proposals modify how the site is used for	*Salicornia* and other annuals colonising	Route chosen to avoid saltmarsh and sensitive habitats of the foreshore,	Yes The route avoids saltmarsh almost entirely and	No

recreation, causing trampling of qualifying features that reduces their extent and distribution	mud and sand; *Spartina* swards; Atlantic salt meadows; Mediterranean (which includes Estuaries sub-feature) thermo-Atlantic halophilous scrubs Wetland plant assemblage Wetland invertebrate assemblage	access to intertidal zones restricted Path enhancements at key locations reduce damage to saltmarsh by existing users creating their own diversions around problem areas. Areas of sand/shingle habitat and associated invertebrates will not have any formal access restrictions, but these areas attract a significant high baseline use and the ECP will not increase this.	associated measures will reduce existing, localised wear along some paths that already cross it. The route follows existing walked lines on some areas of sand/shingle shoreline habitat on an exposed open coast, subject to coastal processes and pressures. In some locations the trail alignment takes a more inland route, relieving pressure on these habitats caused by the public forging their own routes through in the absence of a formal line	
The installation of access management infrastructure within the site causes damage to the structure and function of qualifying natural habitats (which also provide habitat	wetland plant assemblage wetland invertebrate assemblage	Proposed works include limited surface improvements, installation of a short sleeper bridge, and additional waymarking. Many works outside the boundary of the notified sites, and where within, they are in the landward boundary in habitats already impacted by human development.	Yes The access management infrastructure will be located within the established path corridor and will help ensure the route is easy for walkers to use and follow, which in turn will reduce or limit trampling pressure away	No

for other qualifying features)			from the designated path. At point locations for the installation of posts the local vegetation will be reviewed to ensure no rare and scarce plants are at risk. If they are a more suitable location will be identified.	

Conclusion:

The above risks (Table 9) 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.

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

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

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

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

D5. Conclusions on Site Integrity

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

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

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 around Mersea Island 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.

References to evidence

1. NATURAL ENGLAND. 2013. Coastal Access Natural England's Approved Scheme 2013. Published by Natural England Catalogue Code: NE446 http://publications.naturalengland.org.uk/publication/5327964912746496?category=50007

2. England Coast Path Coastal Access Scheme: Technical Memorandum http://publications.naturalengland.org.uk/file/4968161906786304

3. Blackwater Estuary SPA Supplementary Advice Package https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009245&SiteName=blackwater&SiteNameDisplay=Blackwater+Estuary+(Mid-Essex+Coast+Phase+4)+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=8

4. Colne Estuary SPA Supplementary Advice Package https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009243&SiteName=colne&SiteNameDisplay=Colne+Estuary+(Mid-Essex+Coast+Phase+2)+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=6

5. Essex Estuaries SAC Supplementary Advice Package https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK0013690&SiteName=essex%20estuar&SiteNameDisplay=Essex+Estuaries+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=

6. Colne Estuary Ramsar Information Sheet https://jncc.gov.uk/jncc-assets/RIS/UK11015.pdf

7. Blackwater Estuary Ramsar Information Sheet https://jncc.gov.uk/jncc-assets/RIS/UK11007.pdf

8. Frost, T.M., Calbrade, N.A., Birtles, G.A., Hall, C., Robinson, A.E., Wotton, S.R., Balmer, D.E. and Austin, G.E. 2021. Waterbirds in the UK 2019/20: The Wetland Bird Survey. BTO/RSPB/JNCC. Thetford. https://app.bto.org/webs-reporting/numbers.jsp

9. WOOD, S. 2007. The Birds of Essex. London: Christopher Helm.

10. NATURAL ENGLAND. 2019a. Conservation Advice for Marine Protected Areas: Blackwater Estuary (Mid-Essex Coast Phase 4) SPA – UK9009245 https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9009245&SiteName=blackwater&SiteNameDisplay=Blackwater%20Estuary%20(Mid-Essex%20Coast%20Phase%204)%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=8&HasCA=1

11. NATURAL ENGLAND. 2019b. Conservation Advice for Marine Protected Areas: Colne Estuary (Mid-Essex Coast Phase 2) SPA – UK9009243 https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9009243&SiteName=colne&SiteNameDisplay=Colne%20Estuary%20(Mid-

Essex%20Coast%20Phase%202)%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=6&HasCA=1

12. ESSEX BIRDWATCHING SOCIETY. 2002 – 2019. Essex Bird Reports 2000 to 2018. Annual reports published by Essex Birdwatching Society.

13. Liley, D. & Sutherland, W.J. 2007. Predicting the population consequences of human disturbance for Ringed Plover Charadrius hiaticula: a game theory approach. Ibis 149 (Suppl. 1): 82– 94.

14. WOODWARD, I.D., FROST, T.M., HAMMOND, M.J., & AUSTIN, G.E. (2019). Wetland Bird Survey Alerts 2016/2017: Changes in numbers of wintering waterbirds in the Constituent Countries of the United Kingdom, Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs) and Areas of Special Scientific interest (ASSIs). BTO Research Report 721. BTO, Thetford. www.bto.org/webs-reporting-alerts

15. PANTER, C. & LILEY, D. 2016. Distribution of key bird species and access infrastructure along the Essex Coast Special Protection Areas (SPAs). Footprint Ecology. Unpublished report and maps for Natural England.

16. Thomson, S., C. Reid, and S. Boyes. "Essex Coastal SSSIs: Assessment of changes in extent of saltmarsh over the period 1997 to 2008." The Institute of Estuarine and Coastal Studies for Natural England, Hull (2011).

17. KIRBY, P. 2001. Habitat Management for Invertebrates: a Practical Handbook. Sandy, Beds: RSPB.

18. ABREHART ECOLOGY. 2016. Essex Estuaries SAC: Saltmarsh quality monitoring along permanent vegetation transects. Unpublished report for Natural England.