Access and Sensitive Features Appraisal

Coastal Access Programme

This document records the conclusions of Natural England's appraisal of any potential for ecological impacts from our proposals to establish the England Coast Path in the light of the requirements of the legislation affecting Natura 2000 sites, SSSIs, NNRs, protected species and Marine Conservation Zones.

Maldon to Salcott (Blackwater Estuary)

30 March 2017

Contents

This appraisal should be read alongside Natural England's related Coastal Access Report in which the access proposal is fully described and explained

https://www.gov.uk/government/collections/england-coast-path-maldon-to-salcott

1. Our approach

Natural England's approach to protection of sensitive features under the Coastal Access Programme is set out in section 4.9 of Coastal Access: Natural England's Approved Scheme (Natural England 2013). We call our internal processes to support this approach 'Access and Sensitive Features Appraisal' or ASFA.

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

Evidence is also gathered as appropriate from a range of other sources which can include information and data held locally by external partners or from the experience of local land owners 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, nature conservation concerns are discussed early and constructive solutions identified.

The conclusions of our assessment are certified by both the member of staff responsible for developing the access proposal and the person responsible for authorising its conclusions with respect to ecological impacts. This ensures appropriate separation of duties within Natural England.

2. Scope

In this part of the document we define the geographic extent for the appraisal and the features that are included. Note that this appraisal is concerned with ecological, geological and geomorphological features; any other possible sensitivities, including landscape and historic features, are discussed in our coastal access report.

2.1 Geographic extent

The Maldon to Salcott stretch of the England Coast Path extends from Maldon's Promenade Park (TL 8622 0654) to the junction of Salcott Street and Mill Lane in Salcott-cum-Virley village (TL 9482 1367). The 43.4km stretch is sub-divided into five sections for ease of reference; the same geographic units are used in this document and the coastal access report.

Please refer to the Maldon to Salcott Natural England's report to the Secretary of State: Overview document and supporting chapters as below for mapping details.

2.1.1 Maldon to Heybridge Basin (TL 8622 0654 to TL 8717 0682, respectively)

Route sections MSC-1-S001 to MSC-1-S042 (Maps 1a to 1c, Chapter 1)

2.1.2 Heybridge Basin to Goldhanger (TL 8717 0682 to TL 9067 0848, respectively)

Route sections MSC-2-S001 to MSC-2-S032 (Maps 2a to 2c, Chapter 2)

2.1.3 Goldhanger to Tollesbury Wick Marshes (TL 9067 0848 to TL 9679 0932, respectively)

Route sections MSC-3-S001 to MSC-3-S013 (Maps 3a to 3e, Chapter 3)

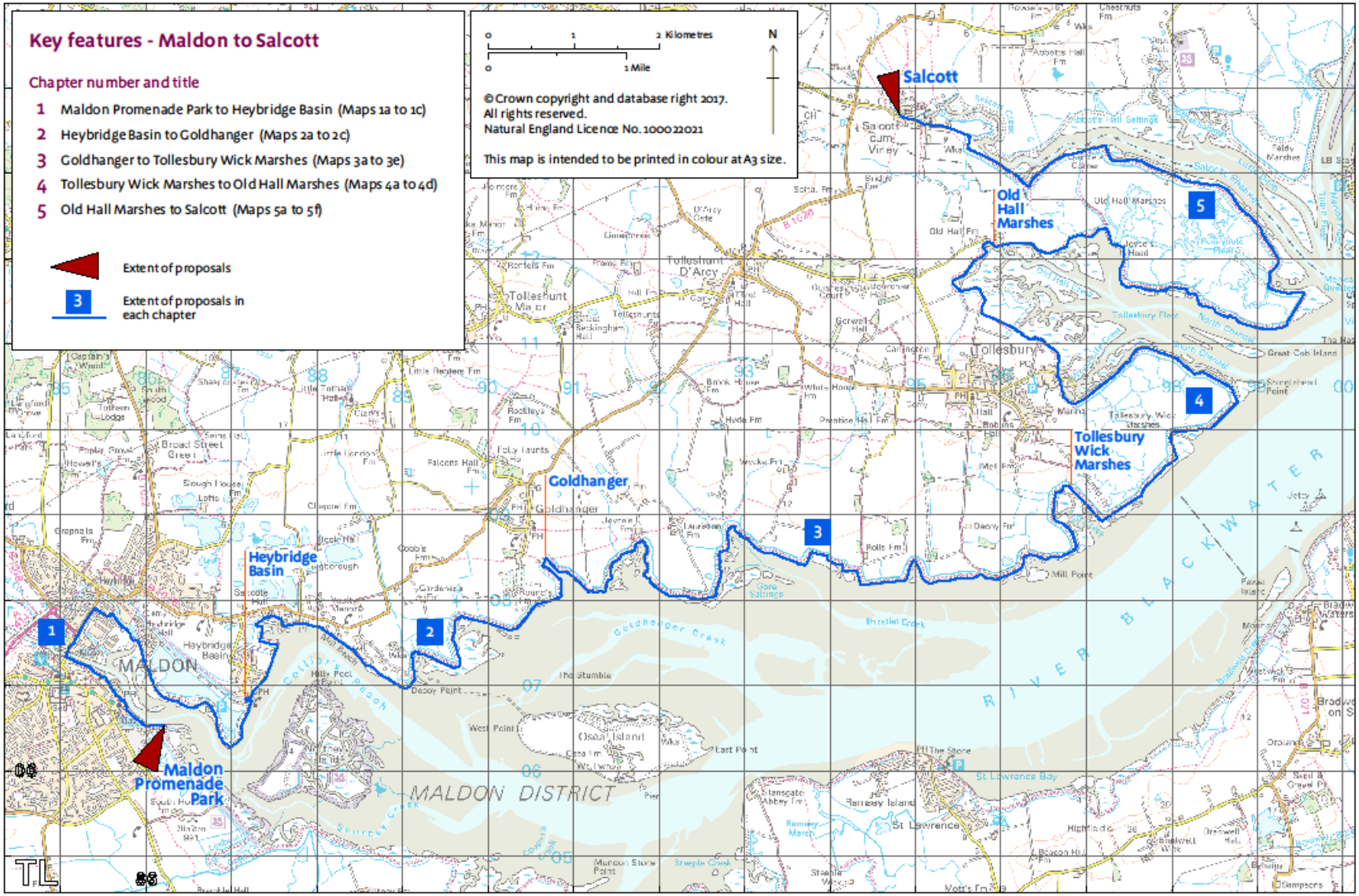
2.1.4 Tollesbury Wick Marshes to Old Hall Marshes (TL 9679 0932 to TL 9589 1218, respectively)

Route sections MSC-4-S001 to MSC-4-S018 (Maps 4a to 4d, Chapter 4)

2.1.5 Old Hall Marshes to Salcott (TL 9589 1218 to TL 9482 1367, respectively)

Route sections MSC-5-S001 to MSC-5-S010 (Maps 5a to 5f, Chapter 5)

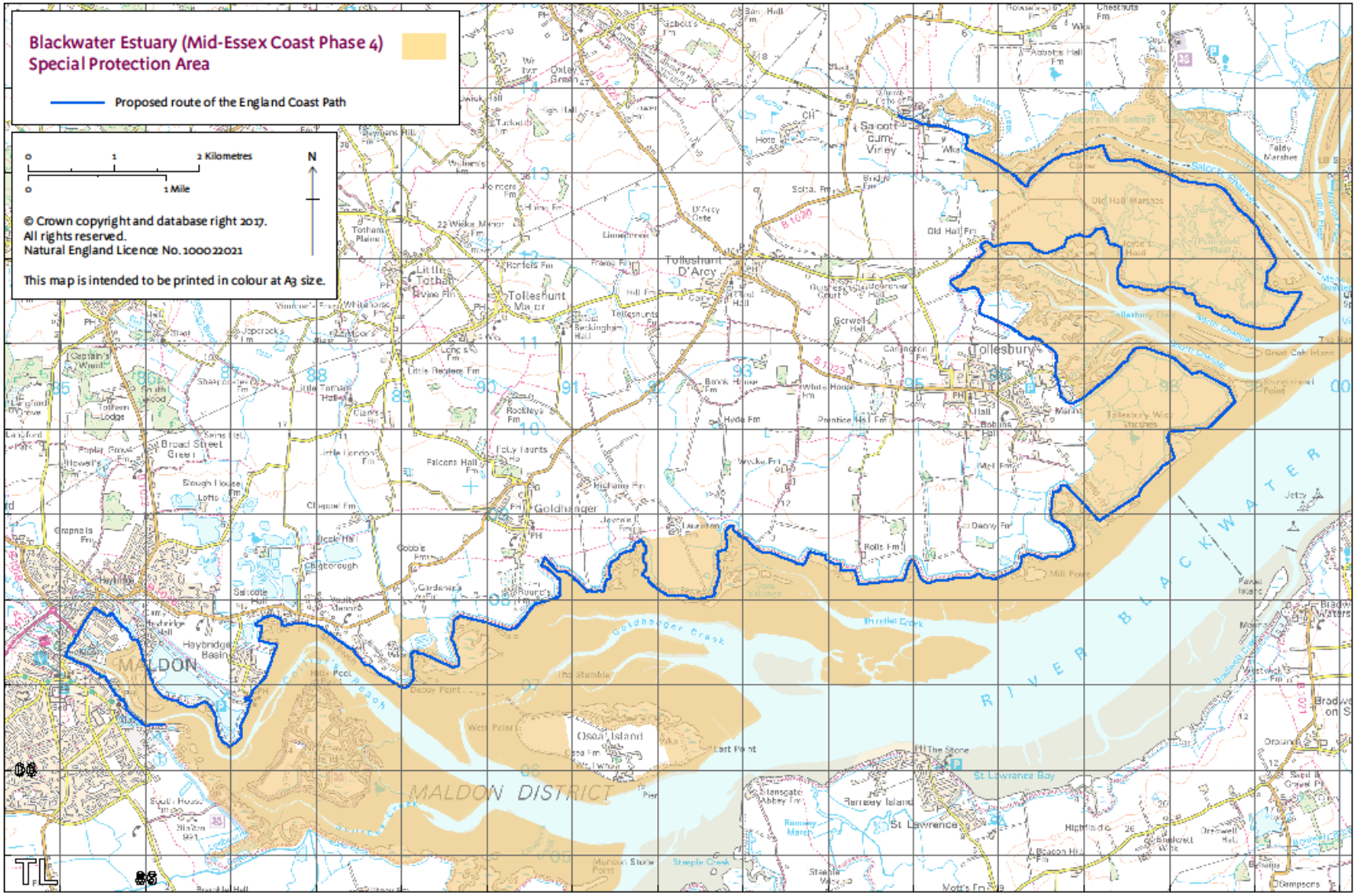
Key features



Coastal Access - Maldon to Salcott - Natural England's Proposals

Coastal Access: Emerging access proposals

Key designation - Blackwater Estuary Special Protection Area (SPA)

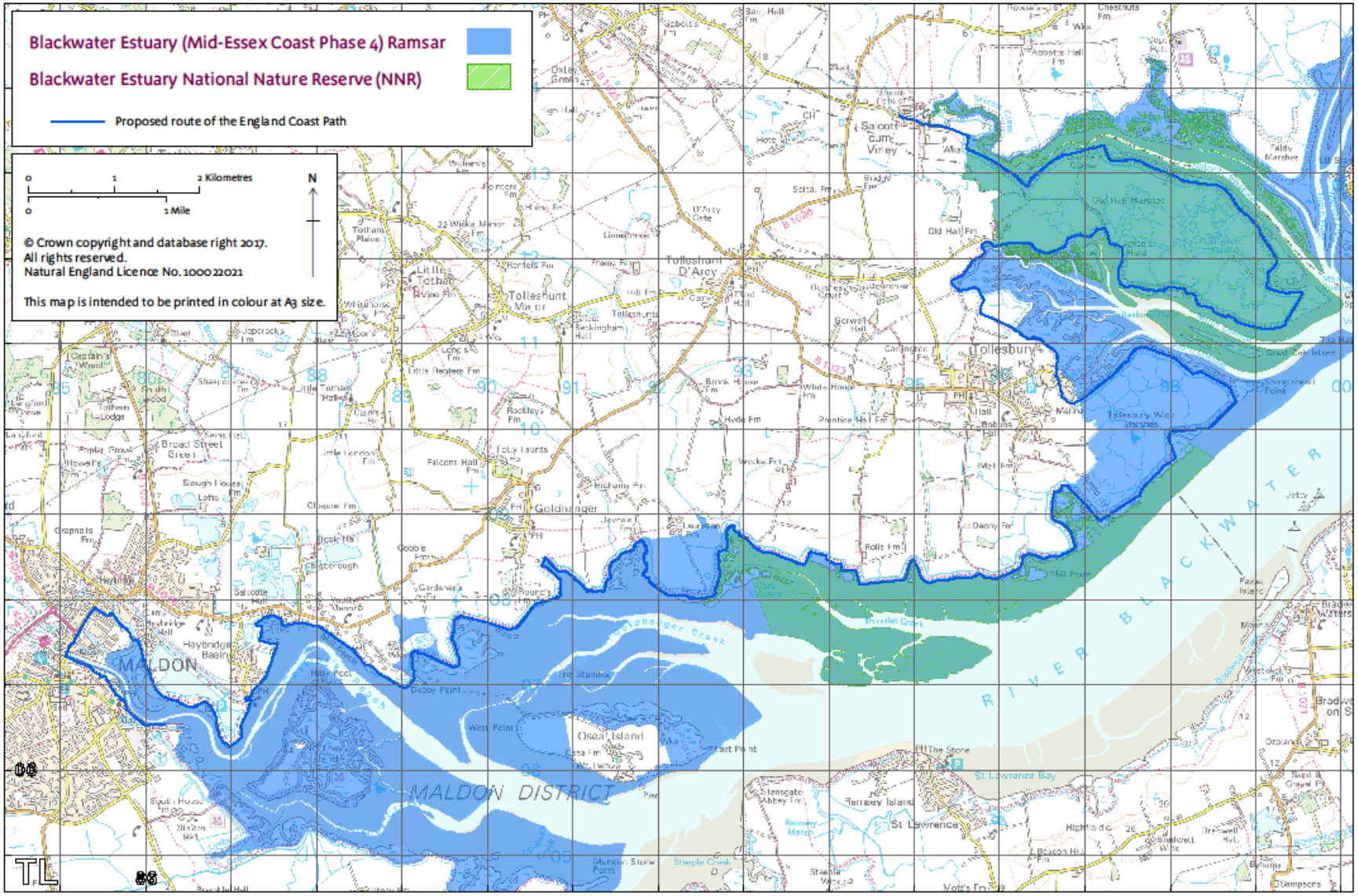


Key designation - Blackwater Estuary Special Protection Area (SPA)

Coastal Access - Maldon to Salcott - Natural England's Proposals

Coastal Access: Emerging access proposals

Key designations - Blackwater Estuary Ramsar and Blackwater Estuary NNR

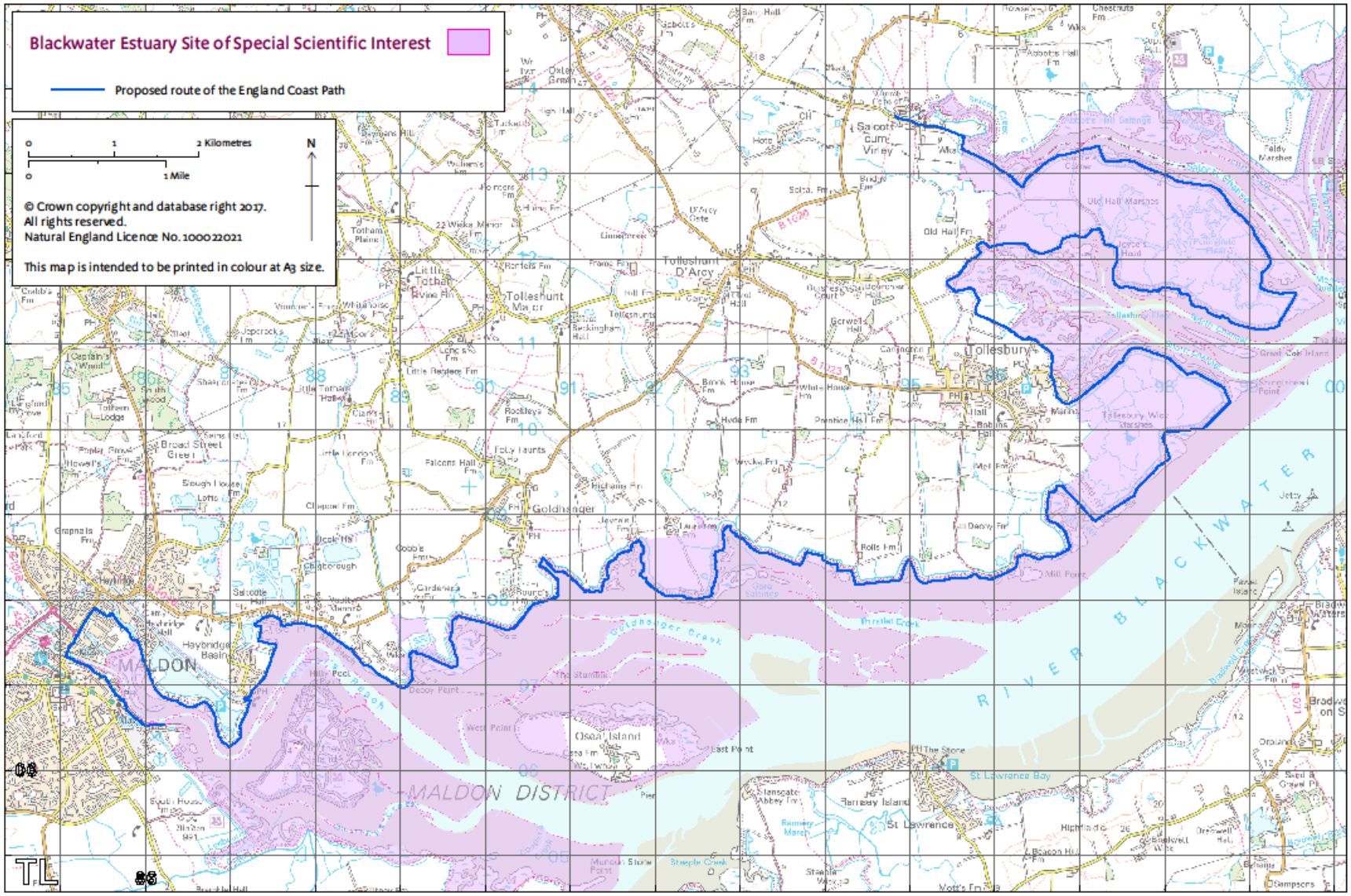


Key designations - Blackwater Estuary Ramsar and Blackwater Estuary NNR

Coastal Access - Maldon to Salcott - Natural England's Proposals

Coastal Access: Emerging access proposals

Key designation - Blackwater Estuary Site of Special Scientific Interest (SSSi)

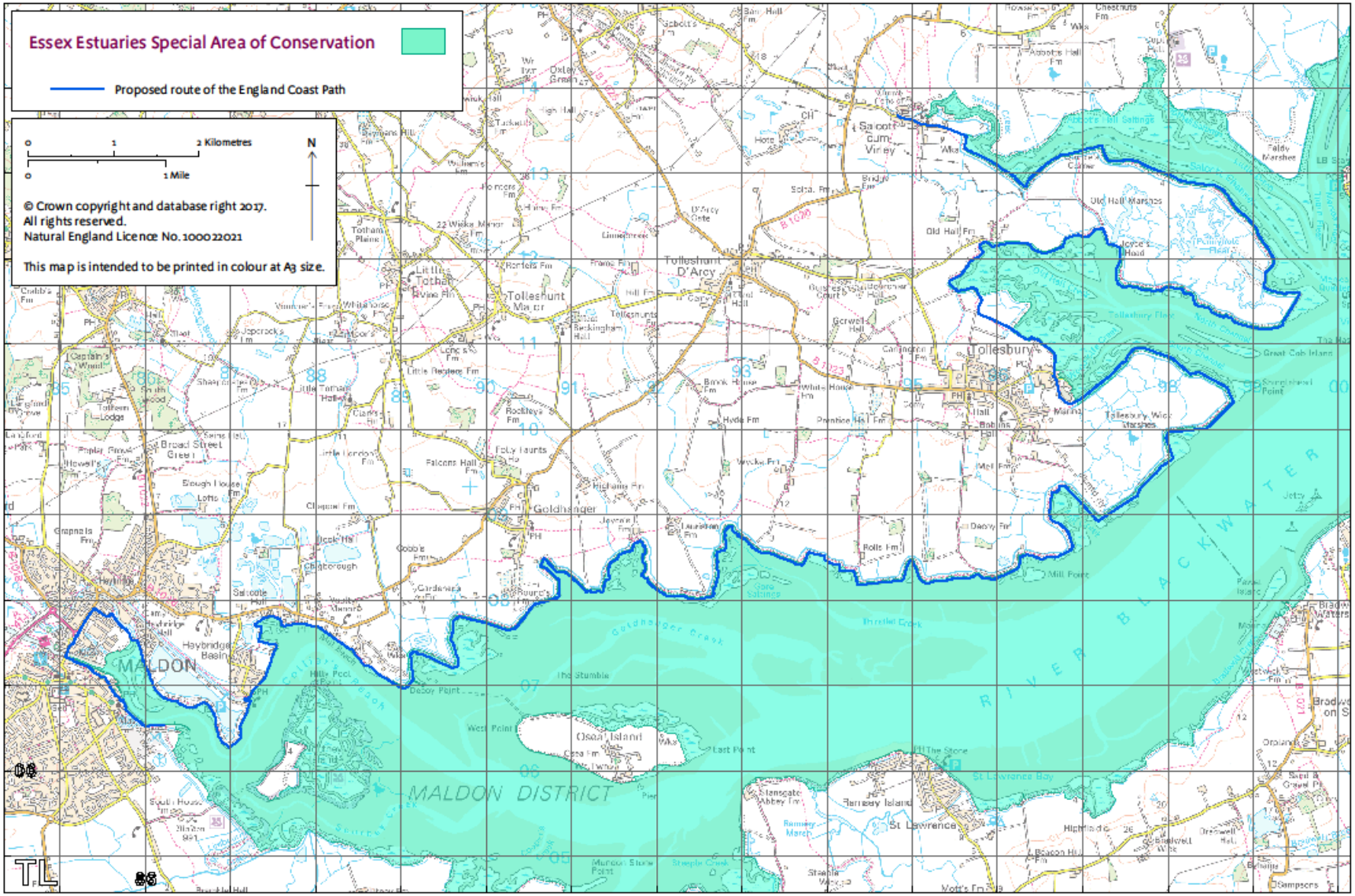


Key designation - Blackwater Estuary Site of Special Scientific Interest (SSSi)

Coastal Access - Maldon to Salcott - Natural England's Proposals

Coastal Access: Emerging access proposals

Key designation - Essex Estuaries Special Area of Conservation (SAC)

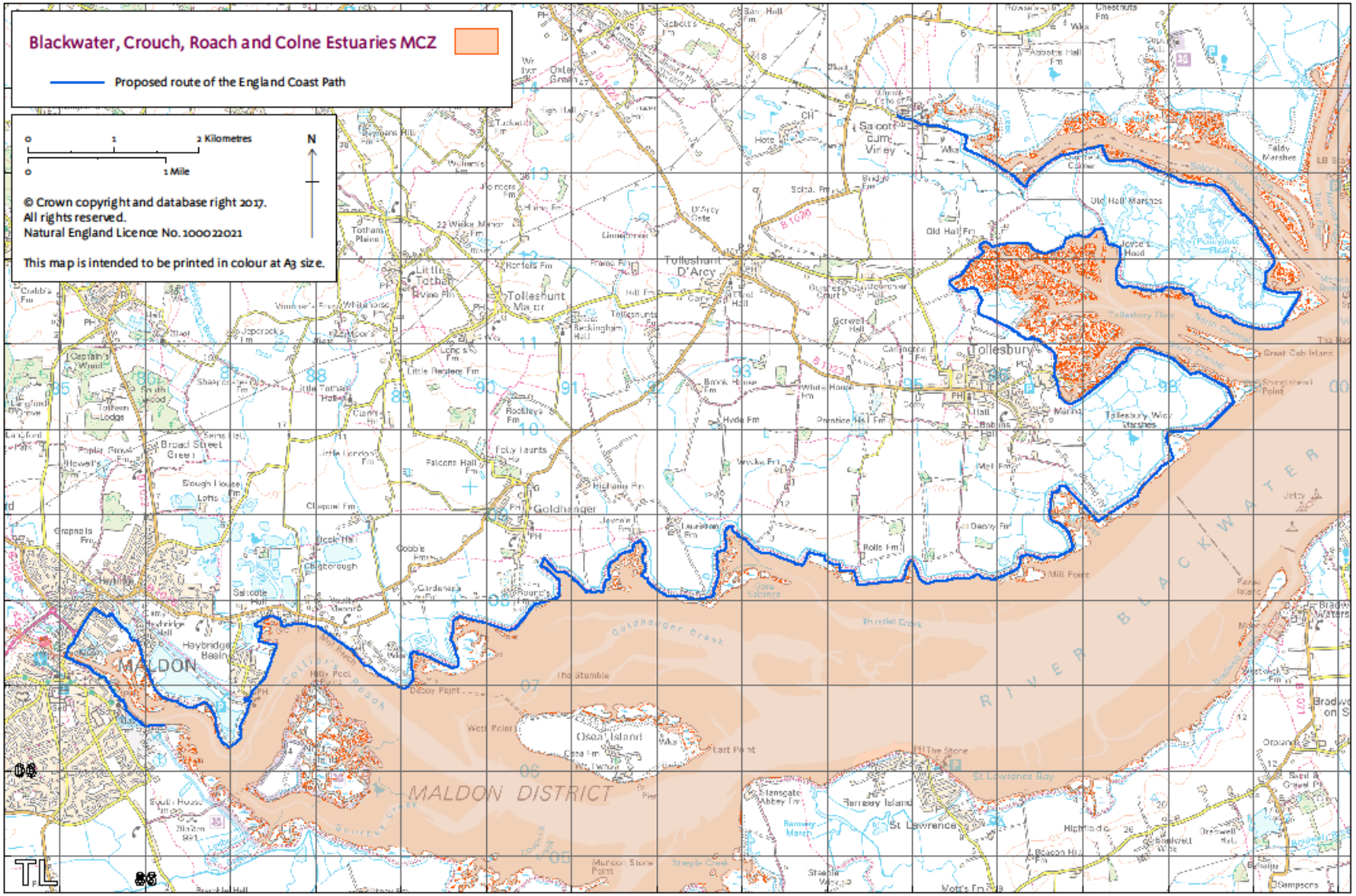


Key designation - Essex Estuaries Special Area of Conservation (SAC)

Coastal Access - Maldon to Salcott - Natural England's Proposals

Coastal Access: Emerging access proposals

Key designation - Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone (MCZ)



Key designation - Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone (MCZ)

2.2 Designated sites

Natural England has determined that the proposed line of the England Coast Path (Maldon to Salcott) and its associated Coastal Margin is located within or adjacent to, and has the potential to affect, a number of sites designated under national and international legislation for their nature conservation interest. These sites are:

Designated Site	Maldon to Heybridge Basin	Heybridge Basin to Goldhanger	Goldhanger to Tollesbury Wick Marshes	Tollesbury Wick Marshes to Old Hall Marshes	Old Hall Marshes to Salcott
Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)	✓	✓	✓	✓	✓
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar Site (RAMSAR)	✓	✓	✓	✓	✓
Blackwater Estuary Site of Special Scientific Interest (SSSI)	✓	✓	✓	✓	✓
Essex Estuaries Special Area of Conservation (SAC)	✓	✓	✓	✓	✓
Blackwater Estuary National Nature Reserve (NNR)			✓	✓	✓
Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone (MCZ)	✓	✓	✓	✓	✓

The above sites are within scope of this document. The Blackwater Estuary NNR will not be detailed separately as all interest features are within the Blackwater Estuary SSSI.

2.3 Context

The Essex Estuaries comprise a complex of European designations: the Essex Estuaries SAC and five mid-Essex coast SPAs (Blackwater Estuary, Colne Estuary, Crouch and Roach Estuaries, Dengie and Foulness) covering a total area of 46,110 square km.

The extensive intertidal mudflats and sandflats are one of the most important areas in the UK for overwintering waterbirds, supporting large flocks that move between sites. The estuaries are also of international importance for several breeding bird species. Four different salt marsh features of European importance are represented as well as large areas of grazing marsh.

Essex has the longest coastline of any English county and in Essex the Natural England Coastal Access Programme comprises ten stretches of between 20 and 79 km. Each has a different timetable for delivery.

Our approach to sensitive features is to treat each stretch as an independent project but taking account of in-combination effects between stretches. In this way we will consider the full possible impact of the coast path on this complex of sites.

The following table provides an overview of the stretches of the England Coast Path affecting the Essex Estuaries and Natural England's timetable:

Designated site	**England Coast Path stretch (and status)** **P = in progress; E = estimated start 2017-18**
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	Salcott to Jaywick (P) Mersea Island (P) Burnham-on-Crouch to Maldon (P)
Blackwater Estuary (Mid-Essex Coast Phase 4) RAMSAR	Salcott to Jaywick (P) Mersea Island (P) Burnham-on-Crouch to Maldon (P)
Blackwater Estuary SSSI	Salcott to Jaywick (P) Mersea Island (P) Burnham-on-Crouch to Maldon (P)
Essex Estuaries SAC	Salcott to Jaywick (P) Mersea Island (P) Burnham-on-Crouch to Maldon (P) Wallasea Island to Burnham-on-Crouch (E) Southend to Wallasea Island (E)
Blackwater Estuary NNR	Salcott to Jaywick (P)
Blackwater, Crouch Roach and Colne Estuaries MCZ	Jaywick to Harwich (P) Salcott to Jaywick (P) Mersea Island (P) Burnham-on-Crouch to Maldon (P) Wallasea Island to Burnham-on-Crouch (E) Southend to Wallasea Island (E)

2.4 Designated features

Avian Features – of the designated sites listed in 2.2	**Blackwater Estuary SPA**	**Blackwater Estuary RAMSAR**	**Blackwater Estuary SSSI**	**Essex Estuaries SAC**	**Blackwater, Crouch, Roach and Colne Estuaries MCZ**
A156 black-tailed godwit (*Limosa limosa islandica*) (Non-breeding)	✓	✓	✓		
A059 pochard *Aythya ferina* (Breeding)	✓		✓		

Avian Features – of the designated sites listed in 2.2	**Blackwater Estuary SPA**	**Blackwater Estuary RAMSAR**	**Blackwater Estuary SSSI**	**Essex Estuaries SAC**	**Blackwater, Crouch, Roach and Colne Estuaries MCZ**
A046a dark-bellied brent goose (*Branta bernicla bernicla*) (Non-breeding)	✓	✓	✓		
A149 dunlin (*Calidris alpina alpina*) (Non-breeding)	✓	✓	✓		
A141 grey plover (*Pluvialis squatarola*) (Non-breeding)	✓	✓	✓		
A082 hen harrier (*Circus cyaneus*) (Non-breeding)	✓				
A195 little tern (*Sterna albifrons*) (Breeding)	✓		✓		
A137 ringed plover (*Charadrius hiaticula*) (Breeding)	✓		✓		
bearded tit (*Panurus biarmicus)* (Breeding)			✓		
Waterbird assemblage: cormorant *(Phalacrocorax carbo)*, shelduck *(Tadorna tadorna)*, teal *(Anas crecca)*, pintail *(Anas acuta),* red-breasted merganser *(Mergus serrator),* avocet *(Recurvirostra avosetta)*, grey plover *(Pluvialis squatarola)*, lapwing *(Vanellus vanellus),* ruff *(Philomachus pugnax),* curlew *(Numenius arquata)*, dunlin *(Calidris alpina),* redshank *(Tringa totanus)*, bean goose (*Anser fabalis rossicus*), little egret (*Egretta garzetta*), smew (*Mergus albellus*), golden plover (*Pluvialis apricaria*), knot (*Calidris canutus*), bar tailed godwit (*Limosa lapponica*), green sandpiper (*Tringa ochropus*), greenshank (*Tringa nebularia*) and turnstone (*Arenaria interpres*)	✓	✓			
Bird Aggregations (non-breeding): curlew (*Numenius arquata*), gadwall (*Anas strepera*), goldeneye (*Bucephala clangula*), redshank (*Tringa totanus*), shelduck (*Tadorna tadorna*), spotted redshank (*Tringa erythropus*) and teal (*Anas crecca*)			✓		
Non-Avian Features – of the designated sites listed in 2.2	**Blackwater Estuary SPA**	**Blackwater Estuary RAMSAR**	**Blackwater Estuary SSSI**	**Essex Estuaries SAC**	**Blackwater, Crouch, Roach and Colne Estuaries MCZ**
H1330 Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)*				✓	
H1130 Estuaries				✓	

Non-Avian Features – of the designated sites listed in 2.2	**Blackwater Estuary SPA**	**Blackwater Estuary RAMSAR**	**Blackwater Estuary SSSI**	**Essex Estuaries SAC**	**Blackwater, Crouch, Roach and Colne Estuaries MCZ**
H1420 Mediterranean and thermo-Atlantic halophilus scrubs *(Sarcocornetea fruticosi)*. (Mediterranean salt marsh scrub)				✓	
H1140 Mudflats and sandflats not covered by sea water at low tide (Intertidal mudflats and sandflats)				✓	
H1310 *Salicornia* and other annuals colonising mud and sand				✓	
H1110 Sandbanks which are slightly covered by sea water all the time (Subtidal sandbanks)				✓	
H1320 *Spartina* swards *(Spartinion maritimae)*. (Cord-grass swards)				✓	
SD2 *Cakile maritima-Honkenya peploides* strandline community			✓		
Nationally important rare invertebrate assemblages		✓	✓		
Lowland ditch systems			✓		
Vascular plant assemblages (ancient grazing marshes and associated fleet and ditch systems)			✓		
A2.4 Intertidal mixed sediments					✓
Native oyster *(Ostrea edulis)* beds					✓
Native oyster *(Ostrea edulis)*					✓

3. Baseline conditions and ecological sensitivities

In this part of the document we identify any of the features mentioned above that are potentially sensitive to changes in access, and rule out from further consideration those that are not.

3.1 Overwintering and passage waterbirds

Composition of feature group
Cormorant *(Phalacrocorax carbo)*, shelduck *(Tadorna tadorna)*, teal *(Anas crecca)*, pintail *(Anas acuta),* red-breasted merganser *(Mergus serrator),* avocet *(Recurvirostra avosetta)*, grey plover *(Pluvialis squatarola)*, lapwing *(Vanellus vanellus),* ruff *(Philomachus pugnax),* curlew *(Numenius arquata)*, dunlin *(Calidris alpina),* redshank *(Tringa totanus)*, bean goose (*Anser fabalis rossicus*), little egret (*Egretta garzetta*), smew (*Mergus albellus*), golden plover (*Pluvialis apricaria*), knot (*Calidris canutus*), bar tailed godwit (*Limosa lapponica*), green sandpiper (*Tringa ochropus*), greenshank (*Tringa nebularia*), turnstone (*Arenaria interpres*), gadwall (*Anas strepera*), goldeneye (*Bucephala clangula*) and spotted redshank (*Tringa erythropus*).
Current conservation status and use of the site
The Blackwater Estuary supports internationally or nationally important numbers of non-breeding water birds as listed as SPA, Ramsar or SSSI features in Table 2.4. The large majority of the species in this feature group are waders and wildfowl, though it also covers other water birds such as divers, grebes, herons and cormorant. These water bird species feed on mudflats and other intertidal habitats and roost at high tide on salt marsh and to a lesser extent inland of the sea walls on grazing marshes, other grasslands and arable fields. WeBS low tide counts for the Blackwater (BTO) show high concentrations of black-tailed godwit on the mud flats north of Northey Island into Heybridge and south to Lawling Creek. While some waterbirds stay mainly in the intertidal zone, brent geese will also spend a significant amount of time feeding on grassland or arable fields inland of the sea wall (SPA functionally linked land).
Ecological sensitivities to changes in access
Non-breeding water birds may be sensitive to disturbance that interrupts them whilst feeding during the autumn or spring migration periods on the exposed tidal mud-flats or when at roost on the salt marsh fringes closest to the sea at high tide. Disturbance is reduced where salt marsh acts as a buffer increasing the distance between the path and the exposed mud where birds are feeding. There are small beaches in some sections of the path which are regularly used by the public. On a rising tide these beaches may create pinch points where birds will be forced into close proximity with the public. Salt marsh also acts as a buffer increasing the distance between sea wall footpaths and birds feeding on mud at low tide. In areas where salt marsh is severely eroded or non-existent a 'pinch point' is created where birds feeding on mud at low tide are pushed ever closer to the seawall by the rising tide. Where there are broad expanses of exposed intertidal mud in this section, birds may feed undisturbed at a distance from the sea wall path. Disturbance at main roost sites (normally the outer edge of salt marsh) is likely to be especially significant because the birds' energy expenditure may be increased both directly (particularly if they are repeatedly flushed) and indirectly (if disturbance forces birds to roost further from their preferred feeding areas). Walkers or their dogs straying more than a few metres onto the salt marsh may flush birds from high tide

roosts.

Conclusion: Due to ecological sensitivities to changes in access this feature group of overwintering and passage waterbirds is **ruled in** for further consideration in this appraisal.

3.2 Breeding ringed plover and little tern

Current conservation status and use of the site

Little terns and ringed plover are both ground nesters on bare or sparsely vegetated sand, shingle or shell banks on the edge of saltings or offshore islands in the Blackwater estuary.

Numbers of breeding pairs of little tern have declined by 27 per cent in the past 25 years. In the Blackwater estuary in Essex breeding has only been occasional with odd pairs nesting on islands and shingle spits in the Mersea quarters with 8-11 pairs recorded at Tollesbury and occasional breeding further to the west at Maldon in recent years (Wood 2007). Little terns generally arrive at their nesting areas from late April to early May and numbers of adults and young peak around July/early August, with most leaving for their West African wintering grounds by mid-September. An extended breeding season begins early March onwards to May and there can be up to three broods so flightless young may still be present in August. Recreational disturbance is a factor in reducing breeding success (Wood 2007). Populations are dynamic and the birds will freely relocate to new sites; favoured little tern nesting habitat is ephemeral and subject to dynamic change (e.g. storm events) while more stable sites may be lost to encroaching vegetation. Little tern are currently identified as a species of conservation priority. They are 'amber' listed in Birds of Conservation Concern (2015 update) protected under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) and in the EC Birds Directive – listed in Annex 1 and as a migratory species.

Ringed plover have an extended breeding season beginning late March onwards to early September. The species' British breeding population declined by c.37% between 1984 and 2007 (Balmer *et al.* 2013). In Essex, available evidence suggests a decline of c.50% - to 100-200 pairs - between the early 1980s and the early 2000s (Wood 2007). Between 1987 and 1991, shortly before the four mid-Essex Coast SPAs were classified, the four sites were estimated to support an average of 135 pairs of ringed plovers. There has been no recent survey of these SPAs' breeding populations but records summarised in Essex Bird Reports suggest that the number of pairs breeding in the Blackwater estuary has remained well below 50 in recent years. As a breeding species the ringed plover is a Species of European Conservation Concern.

Ecological sensitivities to changes in access

Ringed plover and little tern nest on shingle beaches and shell ridges in the Blackwater estuary. Shingle beaches and shell banks are attractive to walkers but are vulnerable to trampling and disturbance/and or predation by dogs. Little tern and ringed plover are both sensitive to increased access to their nesting areas and are also vulnerable to high tides and adverse weather conditions (Wood 2007). Little tern forage closer to their nest sites and nearer the shoreline than other tern species. However, it would probably take a significant increase in access on the coastal margin to affect their foraging sufficiently to reduce breeding success. Ringed plover nest in similar sites to little tern, their habitat preference making them vulnerable to disturbance (Wood 2007).

Conclusion: Due to ecological sensitivities to changes in access breeding ringed plover and little tern are **ruled in** for further consideration in this appraisal.

3.3 Overwintering dark-bellied Brent geese

Current conservation status and use of the site

Historically most Brent geese fed on sea grass *(Zostera spp.)* and the green marine algae *(Enteromorpha)* or on salt marsh plants. However, there has been a widespread decline in sea grasses and Brent geese now appear to be largely dependent on winter wheat and winter barley, oil seed rape, grass fields and amenity grasslands. British Trust for Ornithology (BTO) data for Brent geese show a medium alert (WeBS Alerts 2009-10).

At Tollesbury, there is grazing pasture for Brent geese within 1.5km of the SPA (functionally linked land).

Ecological sensitivities to changes in access

Dark-bellied Brent geese feeding on farmland are more wary and more easily put up than when on mudflats (Owens 1977). The maximum as well as the mean distance at which geese were disturbed increased with increasing flock size. A number of studies have also concluded that larger flocks of birds are warier and more easily disturbed than smaller flocks because there is a greater chance of larger flocks containing "jumpy" individuals which are liable to startle the rest of the flock (Owens 1977). Owens also noted that at the beginning of winter Brent geese were put to flight by a higher proportion of people approaching to within 50-200m than in late winter and that they were more easily disturbed on fields behind the sea wall than on the saltings. However, Natural England staff have observed that in some locations Brent geese appear to tolerate walkers and dogs where borrow dykes appear to act as an effective barrier suggesting that some birds learn to recognise safe feeding areas (Keeling, C. pers. obs. 2016).

Conclusion: Due to ecological sensitivities to changes in access overwintering dark-bellied brent geese are **ruled in** for further consideration in this appraisal.

3.4 Black-tailed godwit

Current conservation status and use of the site

Two races of the black-tailed godwit occur in Britain as a rare breeding species, passage migrant, and as overwintering populations. The Icelandic race *islandica* breeds on subarctic tundra and moorland and winters in estuarine habitats along the Atlantic coast form Britain to Morocco. The continental race *limosa* breeds on temperate moorlands and grasslands and winters primarily south of the Sahara. A small population of *limosa* also breeds in Britain.

During the 1970s there was an apparent decline in populations of *islandica* both on passage and overwintering in Essex but numbers have increased significantly in recent years (Wood 2007). An amelioration of climate in Iceland has resulted in increased breeding success and greater numbers wintering in Essex with the Blackwater being the fourth most important site in Britain. The black-tailed godwit has increased significantly in Essex from the end of the 20thCentury through to the 21st Century due to factors operating principally outside the county.

When classified in 1993, this site supported an internationally important over-wintering population of black-tailed godwits made up of 755 individuals representing 15.8% of the British population and 1.1% of the East Atlantic Flyway population [5559]. The current population of this species overwintering within the site is estimated at 2,863 individuals, based on the 5 year peak mean 2009/10 to 2013/14, which is a

significant increase from 755 individuals the time of classification in 1993 [4179] [5559]. This does not reflect global trends of the species, which illustrate that black-tailed godwits are declining.

Ecological sensitivities to changes in access

Any activities causing disturbance during the autumn or spring migration periods or over the winter can affect feeding rates and increase their energy expenditure (Panter & Liley 2016). Disturbance in mid/late winter - when temperatures are low, day lengths short and food resources depleted - is probably more likely to contribute to mortality than at other times of year. In autumn newly-arrived long-distance migrants with depleted fat reserves may also be susceptible.

Disturbance in spring while migrants are feeding-up before leaving for their arctic breeding grounds may also be damaging because breeding success is linked to early arrival and the birds' condition on arrival. Disturbance of the main roost sites is likely to be especially significant because the birds' energy expenditure may be increased both directly (particularly if they are repeatedly flushed) and indirectly (if disturbance forces birds to roost further from their preferred feeding areas). Birds may also be disturbed when feeding on exposed mud at low tide by humans and dogs. Salt marsh may act as a buffer between the path and exposed mud at low tide but in areas where salt marsh is severely eroded or non-existent a 'pinch point' is created where birds feeding on mud at low tide are pushed ever closer to the seawall and footpath by the rising tide.

Conclusion: Due to ecological sensitivities to changes in access black-tailed godwit are **ruled in** for further consideration in this appraisal.

3.5 Breeding pochard

Current conservation status and use of the site

Pochard breed in reed-fringed ditches and borrowdykes. They have bred successfully at Old Hall Marshes with numbers approaching nationally important levels.

Ecological sensitivities to changes in access

There is potential disturbance from unrestrained dogs entering reed fringing borrow dykes where pochard may potentially breed but unlikely to be significant. Walkers on the sea wall crest are unlikely to affect pochard breeding success.

Conclusion: Due to the geographic separation of the main habitats and the proposed alignment of the England Coast Path the impacts of access on pochard is **ruled out** from further consideration in this appraisal.

3.6 Non-breeding hen harrier

Current conservation status and use of the site

Numbers of overwintering hen harriers have declined in line with national breeding populations but remain an important part of the overall bird assemblage on the Blackwater Estuary. They are occasionally spotted hunting over Tollesbury Wick Marshes and Old Hall Marshes. They favour roost sites in inaccessible salt marsh or scrub.

Ecological sensitivities to changes in access
Hen harriers hunt widely over farmland and salt marsh, only one roost site is known for this stretch of the Blackwater estuary at RSPB Old Hall Marshes. Conclusion: Due to the geographical separation of feeding and roost sites and the proposed alignment of England Coast Path hen harrier is **ruled out** from further consideration in this appraisal.

3.7 Breeding bearded tit

Current conservation status and use of the site
Bearded tit breeds in nationally significant numbers in the reed bed at RSPB Old Hall Marshes – the largest in Essex. They are shy and secretive birds favouring the impenetrable habitat of larger reed beds.
Ecological sensitivities to changes in access
Due to the geographic separation of the favoured habitat from the alignment of the England Coast Path any disturbance by walkers or dogs is unlikely to manifest itself. Conclusion: Due to lack of sensitivity to changes in access bearded tit is **ruled out** from further consideration in this appraisal.

3.8 Herbaceous salt marsh vegetation types

Composition of feature group
H1310 *Salicornia* and other annuals colonising mud and sand, H1320 *Spartina* swards, H1330 Atlantic salt meadows including SM13 *Puccinellia maritima* salt marsh community and SM14 *Halimione portulacoides* salt marsh community.
Current conservation status and use of the site
Vulnerable to erosion and fragmentation west of Tollesbury to Goldhanger. In some areas middle and upper salt marsh zones are increasingly dominated by *Spartina anglica*.
Ecological sensitivities to changes in access
Salt marsh vegetation may be vulnerable to trampling. Increased usage by members of the public is likely to exacerbate erosional processes. Conclusion: Due to ecological sensitivities to changes in access herbaceous salt marsh vegetation types are **ruled in** for further consideration in this appraisal.

3.9 Estuaries

Composition of feature group
H1330 Estuaries
Current conservation status and use of the site
This is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach rivers. Essex Estuaries SAC contains a very wide range of characteristic marine and estuarine sediment communities and some diverse and unusual marine communities in the lower reaches, including rich sponge communities on mixed, tide-swept substrates.
Ecological sensitivities to changes in access
Physically separated from the proposed England Coast Path route alignment and the diversity in scale of the component micro-habitats, public access is unlikely to significantly impact on the ecological features. Conclusion: Due to lack of ecological sensitivities to changes in access "Estuaries" are **ruled out** for further consideration in this appraisal.

3.10 Mediterranean salt marsh scrub

Composition of feature group
H1420 Mediterranean and thermo-Atlantic *halophilus* scrubs (*Sarcocornetea fruticosi*). (Mediterranean salt marsh scrub).
Current conservation status and use of the site
Distribution is limited to upper salt marsh zones on shingle or shell banks.
Ecological sensitivities to changes in access
Mediterranean salt marsh scrub may form a barrier between the trail and the shingle beach or shell banks which are often favoured for recreational activities. These important habitats are subject to trampling by groups seeking access to beaches by breaking down established salt marsh scrub. Conclusion: Due to ecological sensitivities to changes in access Mediterranean salt marsh scrub is **ruled in** for further consideration in this appraisal.

3.11 *Honkenya peploides – Cakile maritima* strandline community

Composition of feature group
The presence of a variety of strandline debris at various levels on shell banks, upper salt marsh and the sea wall is important in providing a variety of topographical and microclimatic features. Strandline communities support nationally scarce and Red Data Book invertebrates associated with strandline debris e.g. *Haplodrassus minor*, a rove beetle *Philonthus punctus* and a horse fly *Atylotus latistriatus*.

Current conservation status and use of the site
Present to varying degrees on the upper tidal limit of beaches and shell banks, providing habitat for shoreline invertebrates and feeding resource for turnstone and ringed plover.
Ecological sensitivities to changes in access
The strandline community would be sensitive to changes in access that lead to increased trampling. Conclusion: Due to ecological sensitivities to potential changes in access *Honkenya peploides – Cakile maritima* strandline community is **ruled in** for further consideration in this appraisal.

3.12 Vascular plant assemblage (nationally scarce salt marsh species)

Composition of feature group
24 species within the vascular plant assemblage of salt marsh in the Blackwater estuary are listed as nationally scarce.
Current conservation status and use of the site
Vulnerable to erosion of salt marsh and the loss and fragmentation of salt marsh zonation.
Ecological sensitivities to changes in access
Salt marsh vegetation is vulnerable to trampling. Increased usage by members of the public is likely to exacerbate erosional processes as the footfall may damage the plants that knit the sediment together, leading to increased erosion, or by physically eroding the sediment itself, such as collapsing edges under foot. Conclusion: Due to ecological sensitivities to changes in access this salt marsh vascular plant assemblage is **ruled in** for further consideration in this appraisal.

3.13 Invertebrate salt marsh assemblage

Composition of feature group
Salt marsh provides structural habitats with a similarity to heathland (e.g. for the unique Essex colour form of the crab spider *Philodromus histrio*). Golden Samphire and Shrubby Seablite are also important species found in salt marsh in the Blackwater Estuary that support dependent species (e.g. the RDB3 picture-winged fly *Myopites eximius* on Golden Samphire).
Current conservation status and use of the site
The invertebrate fauna is well represented and includes at least 16 Red Data Book species. In descending order of rarity these are: Endangered: a water beetle *Paracymus aeneus*; Vulnerable: a damselfly *Lestes dryas*, the flies *Aedes flavescens, Erioptera bivittata, Hybomitra expollicata* and the spiders *Heliophanus auratus* and *Trichopterna cito*; Rare: the beetles *Baris scolopacea, Philonthus punctus, Graptodytes bilineatus* and *Malachius vulneratus*, the flies *Campsicnemus magius* and *Myopites eximia*, the moths *Idea ochrata* and *Malacosoma castrensis* and the spider *Euophrys browningi*.

Ecological sensitivities to changes in access
Increasing fragmentation of salt marsh (due to erosion), west of Tollesbury to Goldhanger, is likely to have a significant adverse impact on invertebrate communities that will be exacerbated by trampling. Conclusion: Due to ecological sensitivities to potential changes in access this invertebrate salt marsh assemblage is **ruled in** for further consideration in this appraisal.

3.14 Mudflats/sandflats not covered at low tide

Composition of feature group
Essex Estuaries represent the range of variation of this habitat type (H1140) found in south-east England and includes extensive intertidal mudflats and sandflats of the Blackwater Estuary (among others). The area includes a wide range of sediment flat communities, from estuarine muds, sands and muddy sands to fully saline, sandy mudflats with extensive growths of *Zostera* spp. on the open coast.
Current conservation status and use of the site
Mudflats/sandflats not covered at low tide provide a feeding resource for birds and staging posts between feeding areas and high tide roosts.
Ecological sensitivities to changes in access
Unlikely to be attractive to walkers often appearing uninviting and potentially dangerous and normally accessed only by bait diggers and boat users. Birds may be disturbed when feeding on exposed mud at low tide; there is also an increased likelihood of impact at locations where there is no salt marsh increasing the distance between the birds and the seawall. Conclusion: Due to ecological sensitivities to potential changes in access this habitat type is **ruled in** for further consideration in this appraisal.

3.15 Sandbanks which are slightly covered by sea water all the time

Composition of feature group
Sandbanks which are slightly covered by sea water all the time (H1110) consist of sandy sediments that are permanently covered by shallow sea water, typically at depths of less than 20m below chart datum (but sometimes including channels or other areas greater than 20m deep). The habitat comprises distinct banks (i.e. elongated, rounded or irregular 'mound' shapes) which may arise from horizontal or sloping plains of sandy sediment. Where the areas of horizontal or sloping sandy habitat are closely associated with the banks, they are included within the Annex I type.
Current conservation status and use of the site
Shallow sandy sediments are typically colonised by burrowing fauna of worms, crustaceans, bivalve molluscs and echinoderms. Mobile epifauna at the surface of the sandbank may include shrimps, gastropods molluscs, crabs and fish. Many of these species are exploited by birds as an important feeding resource.

Ecological sensitivities to changes in access
By definition these habitats lie in sub-tidal waters and are therefore inaccessible to walkers so can be **ruled out** of further consideration in this appraisal.

3.16 Lowland ditch systems

Current conservation status and use of the site
The lowland ditch systems of the Blackwater Estuary includes networks of freshwater to brackish ditches draining areas of grazing marsh and also brackish to strongly saline borrowdykes just behind sea walls that drain into the estuaries, usually through flap sluices. These ditches provide supporting habitats for unusual aquatic invertebrates and plants, waterbirds, and other notable wildlife such as water voles. Such habitats are particularly prevalent at Tollesbury Wick Marshes and Old Hall Marshes where relict grazing marsh is present in the immediate hinterland.
Ecological sensitivities to changes in access
Sensitivities to disturbance of waterbirds using grazing marshes and their associated ditch systems are considered above. Those considerations aside, ditches and their other fauna and flora are unlikely to be sensitive to potential changes in access. Conclusion: Due to the geographic separation of these habitats and the alignment of the England Coast Path and seaward spreading room changes in access lowland ditch systems are **ruled out** from further consideration in this appraisal.

3.17 Intertidal mixed sediments

Composition of feature group
Mixed sediments comprise unsorted pebbles, gravels, sands and mud, and they may also include rocks and a few large boulders. This type of shoreline tends to occur in more sheltered locations, and is not found where there is strong wave action. With such a broad range of seabed types on a single shoreline, the animal and plant communities are very diverse. Brown and green seaweeds can live on the larger rocks, and barnacles may also be abundant on any hard surfaces. Animals living on or in the sand and mud or between the pebbles include many worms such as ragworms, mud shrimps and sandhoppers, cockles and other bivalve shells, as well as the spire shell snail.
Current conservation status and use of the site
The distribution of intertidal mixed sediments in the Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone (MCZ) tends to be further into the channels of the estuary. References: (JNCC 2014) and (MCZ conservation advice 2015).
Ecological sensitivities to changes in access
Due to the habitats' location the general public are unlikely to interact with these areas. There are no

ecological sensitivities to potential changes in access therefore intertidal mixed sediments are **ruled out** from further consideration in this appraisal.

3.18 Native oyster and native oyster beds

Current conservation status and use of the site
These features are set to recover under the MCZ. Natural England is delivering a management plan for these features with many stakeholders including the Kent & Essex Inshore Fisheries and Conservation Authority (IFCA). Native oysters as a species are found sporadically throughout the MCZ, and some points are recorded relatively close to the proposed route. However, it is likely that these points recorded are individual oysters, as native oysters and beds are found in 2 to 5m of water depth and therefore it is unlikely that native oysters could live for very long outside of the intertidal area.
Ecological sensitivities to changes in access
Native oysters need to be in an area where they are at the very least partially submerged regularly to survive. Therefore, we can **rule out** any potential impact of the proposed route on native oysters or native oyster beds in the MCZ, because the native oyster's ideal habitat is inaccessible to walkers. References: (Jackson 2007) and (MCZ conservation advice 2015).

4. Potential for interaction

In this part of the document we identify places where sensitive features are present *and* there could, or will not, be an interaction with proposed changes in access.

4.1 Maldon to Heybridge Basin

Outline of changes in access
The proposed England Coast Path route will follow existing public rights of way and areas of existing public access (such as parks) and includes some pavement walking within the built up areas. Some parts of the sea wall footpath will be improved underfoot with a light top-dressing on worn areas. An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail to mean low water. Where the path is aligned along the top of a sea wall, the edge of the margin will be the top landward edge of the sea wall crest. As identified in Map F of the Overview salt marsh and mudflats will be covered by a direction under s25A of the Countryside and Rights of Way Act (2000) excluding access all year-round as they are unsuitable for public access. This exclusion will not affect the route itself. The majority of this section is through the urban area of Maldon Town and the highly popular visitor attraction of Promenade Park. The England Coast Path will define a linear route within an existing busy location.
Potential for interaction (or lack of it)
Potential for interaction with all ecological sensitivities listed as in scope in section 3 of this report. Of particular consideration is the disturbance of water birds and physical damage to salt marsh community habitats.

4.2 Heybridge Basin to Goldhanger

Outline of changes in access
The proposed route will follow the existing sea wall crest public footpath for this entire section. Some parts of the sea wall footpath may be improved underfoot as part of normal ongoing maintenance operations. An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail to mean low water. Where the path is aligned along the top of a sea wall, the edge of the margin will be the top landward edge of the sea wall crest. As identified in Maps G and H of the Overview salt marsh and mudflats will be covered by a direction under s25A of the Countryside and Rights of Way Act (2000) excluding access all year-round as they are unsuitable for public access. Although within the default coastal margin, Osea Island (and its mile-long causeway) will be subject to a s24 direction under the CROW Act to exclude the public's right of access (Map E of the Overview). These exclusions will not affect the route itself. The main visitor attraction on this Section is Heybridge Basin. Here there are carparks and several tourist

attractions, including pubs and tearooms and the Basin lock that make this a popular place to visit. The proposed England Coast Path trail will follow existing public rights of way along this entire stretch with no significant changes in access.

Potential for interaction (or lack of it)

Potential for interaction with all ecological sensitivities listed as in scope in section 3 of this report. Of particular consideration is the disturbance of water birds and physical damage to salt marsh community habitats.

4.3 Goldhanger to Tollesbury Wick Marshes

Outline of changes in access

The proposed route will follow the existing sea wall crest public footpath for this entire section. Some parts of the sea wall footpath may be improved underfoot as part of normal ongoing maintenance operations.

An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail to mean low water. Where the path is aligned along the top of a sea wall, the edge of the margin will be the top landward edge of the sea wall crest.

As identified in Maps I and J of the Overview salt marsh and mudflats will be covered by a direction under s25A of the Countryside and Rights of Way Act (2000) excluding access all year-round as they are unsuitable for public access. This exclusion will not affect the route itself.

The proposed England Coast Path trail will follow existing public rights of way along this entire stretch with no significant changes in access.

Potential for interaction (or lack of it)

Potential for interaction with all ecological sensitivities listed as in scope in section 3 of this report. Of particular consideration is the disturbance of water birds and physical damage to salt marsh community habitats.

4.4 Tollesbury Wick Marshes to Old Hall Marshes

Outline of changes in access

The proposed route will follow the existing sea wall crest public footpath for this entire section. Some parts of the sea wall footpath may be improved underfoot as part of normal ongoing maintenance operations.

An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail to mean low water. Where the path is aligned along the top of a sea wall, the edge of the margin will be the top landward edge of the sea wall crest.

As identified in Maps K and L of the Overview salt marsh and mudflats will be covered by a direction under s25A of the Countryside and Rights of Way Act (2000) excluding access all year-round as they are unsuitable for public access. This exclusion will not affect the route itself.

Access is to be excluded from 1st May to 15th August each year in the coastal margin on the shingle spits at Tollesbury Wick Marshes: Blockhouse Bay (TL 981 098) and Shinglehead Spit (TL 989 104). This is proposed

under s26(3)(a) of the CROW Act and supports current management for the Essex Wildlife Trust site as it will prevent impact through trampling and direct disturbance of bird nesting sites during the breeding season (see Map O of the Overview). Interpretation panels will be installed to explain the need for this. This exclusion will not affect the route itself. Wardening at Tollesbury Wick Marshes Nature Reserve encourages visitors to observe any local restrictions.

The proposed England Coast Path trail will follow existing public rights of way along this entire stretch with no significant changes in access.

Potential for interaction (or lack of it)

Potential for interaction with all ecological sensitivities listed as in scope in section 3 of this report. Of particular consideration is the disturbance of water birds and physical damage to salt marsh community habitats.

4.5 Old Hall Marshes to Salcott

Outline of changes in access

The proposed route will follow the existing sea wall crest public footpath for this entire section. Some parts of the sea wall footpath may be improved underfoot as part of normal ongoing maintenance operations.

An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail to mean low water. Where the path is aligned along the top of a sea wall, the edge of the margin will be the top landward edge of the sea wall crest with the exception of a section of landward coastal margin to be made available by the RSPB (see map 5a, chapter 5).

As identified in Maps N and M of the Overview salt marsh and mudflats will be covered by a direction under s25A of the Countryside and Rights of Way Act (2000) excluding access all year-round as they are unsuitable for public access. This exclusion will not affect the route itself.

Access is to be excluded from 1st May to 15th August each year in the coastal margin on the shingle spits at Quarters Spit (TL 995 114) (see Map P of the Overview). This is proposed under s26(3)(a) of the CROW Act and supports current management for the RSPB site as it will prevent impact through trampling and direct disturbance of bird nesting sites during the breeding season. Interpretation panels will be installed to explain the need for this. This exclusion will not affect the route itself. Wardening at Old Hall Marshes Nature Reserve encourages visitors to observe any local restrictions.

The proposed England Coast Path trail will follow existing public rights of way along the majority of this stretch. A short section of new access right will be created along the sea wall at Salcott (route section MSC-5-S004). This is currently the walked line. No significant change in access is proposed.

Potential for interaction (or lack of it)

Potential for interaction with all ecological sensitivities listed as in scope in section 3 of this report. Of particular consideration is the disturbance of water birds and physical damage to salt marsh community habitats.

5. Assessment of any possible adverse impacts and mitigation measures

In this part of the document we look in more detail at sections of coast where there could be an interaction between the access proposal and sensitive features. We discuss possible risks to sensitive features and explain how these have shaped the design of our proposals and/or led to the inclusion of specific mitigation measures.

Please refer to Maps E through to P in the Maldon to Salcott Natural England's Report to the Secretary of State: Overview for details regarding the exclusions in each section listed below.

5.1 Maldon to Heybridge Basin

5.1.1 Ecological sensitivity

This section of the coast path can be divided between the urban fringe of Maldon and Heybridge Basin which may be well used by the public and then longer stretches only accessible from Goldhanger or longer walks up to a kilometre following footpaths from the B1026. The public footpath between Maldon and Heybridge is surfaced and provides easy access. Wintering wildfowl and waders are particularly sensitive to disturbance when feeding on the exposed tidal mud-flats or when at roost on the salt marsh fringes closest to the sea at high tide. There are broad expanses of exposed at mud in this section allowing birds feeding on the mud to feed at a distance from the path for a distance in excess of approx. 200m.

5.1.2 Proposed improvements to accessibility

No physical works are planned through the England Coast Path programme as the proposed route will align with existing public footpaths. The England Coast Path logo will be added to signage at appropriate locations to assist walkers in their onward progress.

As shown in Map F of the Overview the majority of the salt marsh and mudflats in the coastal margin will be subject to a s25A CROW direction as it is deemed unsuitable for public access.

In some places, a right of access may be created to parts of the coastal margin that are currently private land. Such new opportunities for access are subject to national and local restrictions and do not apply to areas of excepted land. Along this section of coast the main excepted land includes all buildings and their curtilage captured between the line of the proposed route and the Mean Low Water mark.

5.1.3 Access assessment

Current situation	Predicted change
Maldon Promenade Park is the focal point for access on this section as there are good facilities, such as car parks, toilets and cafes. It attracts over 300,000 visitors per annum with peaks during public bank holidays and the summer there are good facilities (car parks, toilets, cafes, etc.). Local rights of way that form the trail are currently well	Small increase in walkers anticipated along the trail from those undertaking the onward journey along the coast path. No change to the current *de facto* level of use of margin (beaches) as these areas are already utilised by the public and the Coastal Access rights will not provide extra accessibility to these areas.

used.	

5.1.4 Possible adverse impacts

All birds in the waterbird assemblage may be sensitive to disturbance when feeding on the exposed tidal mud-flats at low tide in this section of path. Birds are already subject to disturbance at this section but it is possible that large expanses of mud allow birds to feed at a distance from walkers.

5.1.5 Mitigation measures included in the access proposal to address any possible impacts

New Information boards explaining the importance of the wildlife of the area are proposed at a number of key locations (e.g. Promenade Park and Heybridge Basin).

Natural England believes that the majority of salt marsh and mudflat areas are not suitable for public access and propose that it will be necessary to exclude access to the majority of the coastal margin.

5.1.6 Conclusion

We have fully considered ecological sensitivities in this area, alongside the current and predicted access levels. We have concluded that the absence of a significant increase in use coupled with the s25A CROW direction on public access delivers all necessary mitigation.

5.2 Heybridge Basin to Goldhanger

5.2.1 Ecological sensitivity

This section of path is surfaced and easily accessed. Caravan parks at Goldhanger suggest that this section may well used, particularly during the holiday season. Birds are sensitive to disturbance when feeding on the exposed tidal mud-flats at low tide but in this area, large expanses of mud exposed at low tide may allow birds to feed at a distance from walkers. The salt marsh at Decoy Point is heavily eroded or lost entirely at this location due to coastal processes combining with a level of visitor pressure.

5.2.2 Proposed improvements to accessibility

No physical works are planned through the England Coast Path programme as the proposed route will align with existing public footpaths. The England Coast Path logo will be added to signage at appropriate locations to assist walkers in their onward progress.

As shown in Maps G and H of the Overview the majority of the salt marsh and mudflats in the coastal margin will be subject to a s25A CROW direction as it is deemed unsuitable for public access. Osea Island and its mile-long causeway will be subject to a year-round s24 direction under the CROW Act excluding public access (see Map E of the Overview).

In some places, a right of access may be created to parts of the coastal margin that are currently private land. Such new opportunities for access are subject to national and local restrictions and do not apply to areas of excepted land. Along this section of coast the main excepted land includes all buildings and their curtilage captured between the line of the proposed route and the Mean Low Water mark.

5.2.3 Access assessment	
Current situation	**Predicted change**
Very popular visitor attraction at Heybridge Basin (maritime heritage, pubs, tearooms, sailing club, car parking). Peak months Easter to autumn. Several holiday home sites around Mill Beach open year-round, but marked reduction in visitor numbers after September until June. Rights of Way that will form the Trail are currently well used.	Small increase in walkers anticipated along the trail from those undertaking the onward journey along the coast path. No change to the current *de facto* level of use of margin (beaches) as these areas are already utilised by the public and the Coastal Access rights will not provide extra accessibility to these areas.

5.2.4 Possible adverse impacts
There is evidence of existing pressure on birds using this section of the estuary (disturbance from people and dogs) and adverse effects of informal access to the salt marsh (trampling of vegetation).

5.2.5 Mitigation measures included in the access proposal to address any possible impacts
Apart from the identified public beach areas at Mill Beach (TL 884 073) and Goldhanger (TL 908 080), all other intertidal areas in the seaward coastal margin (salt marsh and mudflat) are deemed unsuitable for public access and therefore no further mitigation is required.

5.2.6 Conclusion
We have fully considered ecological sensitivities in this area alongside the current and predicted access levels. We have concluded that the absence of a significant increase in use coupled with the s25A CROW direction on public access delivers all necessary mitigation.

5.3 Goldhanger to Tollesbury Wick Marshes

5.3.1 Ecological sensitivity
The mudflats and salt marsh areas host significant numbers of the water bird assemblage. Waders and wildfowl are particularly sensitive to disturbance when feeding on the exposed tidal mud-flats or when at roost on the salt marsh fringes closest to the sea at high tide. Disturbance is reduced where salt marsh acts as a buffer increasing the distance between the path and the exposed mud where birds are feeding. There are small beaches near Goldhanger which are regularly used by the public. On a rising tide these beaches may create pinch points where birds will be forced into close proximity with the public. There are high tide mixed species roosts during the winter months on salt marsh at Decoy Point (TL 898086) Joyce's Farm (TL917084) Lauriston Farm -Gore Saltings (TL923083) Rolls Farm (TL942085) Mill Point (TL965083) and Mill Creek (TL 969088) The roosts are normally at the outer fringe of salt marsh which are often cut through by channels and ditches making access hazardous. There are possible pinch points where birds may be forced into close proximity with the path between Decoy Point (TL 898086) and Joyce's Farm (TL917084), at Rolls Farm (TL942085) and Mill Point (TL965083). The salt marsh and estuarine community aggregation is susceptible to physical damage from trampling and collecting of specimens or

clearing of strandline debris.

5.3.2 Proposed improvements to accessibility

No physical works are planned through the England Coast Path programme as the proposed route will align with existing public footpaths. The England Coast Path logo will be added to signage at appropriate locations to assist walkers in their onward progress.

As shown in Maps I and J of the Overview the majority of the salt marsh and mudflats in the coastal margin will be subject to a S25A CROW direction as it is deemed unsuitable for public access.

In some places, a right of access may be created to parts of the coastal margin that are currently private land. Such new opportunities for access are subject to national and local restrictions and do not apply to areas of excepted land. Along this section of coast the main excepted land includes all buildings and their curtilage captured between the line of the proposed route and the Mean Low Water mark.

5.3.3 Access assessment

Current situation	Predicted change
Moderate usage mainly by locals (including dog walkers, swimmers, ramblers), very limited village on-road parking, parking conflicts with residents' access especially during the summer months. Rights of Way that will form the Trail are currently reasonably well used.	Small increase in walkers anticipated along the trail from those undertaking the onward journey along the coast path. No change to the current *de facto* level of use of margin (beaches) as these areas are already utilised by the public and the Coastal Access rights will not provide extra accessibility to these areas.

5.3.4 Possible adverse impacts

There is evidence of existing pressure on both birds using this section of the estuary (disturbance from people and dogs) and adverse effects of informal access to the salt marsh (trampling of vegetation).

5.3.5 Mitigation measures included in the access proposal to address any possible impacts

Apart from the established publically accessible beach areas at Higham Farm EA Floodgate (TL 9122 0811) and an unnamed south-facing spit (TL 9138 0813), all other intertidal areas in the seaward coastal margin (salt marsh and mudflat) are deemed unsuitable for public access and therefore no further mitigation is required.

5.3.6 Conclusion

We have fully considered ecological sensitivities in this area alongside the current and predicted access levels. We have concluded that the absence of a significant increase in use coupled with the s25A CROW direction on public access delivers all necessary mitigation.

5.4 Tollesbury Wick Marshes to Old Hall Marshes

5.4.1 Ecological sensitivity

This section is similar to the preceding section. The mudflats and salt marsh host significant numbers of the water bird assemblage. These are particularly sensitive to disturbance when feeding on the exposed tidal mud-flats or when at roost on the salt marsh fringes closest to the sea at high tide. Disturbance is reduced where salt marsh acts as a buffer increasing the distance between the path and the exposed mud where birds are feeding. The small spit areas at Blockhouse Bay (TL 981 098) and Shinglehead Spit (TL 989 104) may create pinch points . Wardening at Tollesbury Wick Marshes Nature Reserve encourages visitors to observe any local restrictions.

There are high tide mixed species roosts during the winter months on salt marsh at Tollesbury Wick (TL982098), Shinglehead Point (TL990108) and South Channel (TL985108, TL981109 and TL983103). The roosts are normally at the outer fringe of salt marsh which are often cut through by channels and ditches making access hazardous.

5.4.2 Proposed improvements to accessibility

No physical works are planned through the England Coast Path programme as the proposed route will align with existing public footpaths. The England Coast Path logo will be added to signage at appropriate locations to assist walkers in their onward progress.

As shown in Maps K and L of the Overview the majority of the salt marsh and mudflats in the coastal margin will be subject to a s25A CROW direction as it is deemed unsuitable for public access.

In some places, a right of access may be created to parts of the coastal margin that are currently private land. Such new opportunities for access are subject to national and local restrictions and do not apply to areas of excepted land. Along this section of coast the main excepted land includes all buildings and their curtilage captured between the line of the proposed route and the Mean Low Water mark.

5.4.3 Access assessment

Current situation	Predicted change
Well used mainly by locals off-peak plus peak summer visits (number boosted by recreational boat-users at Tollesbury Marina). Rights of Way that will form the Trail are currently reasonably well used.	Small increase in walkers anticipated along the trail from those undertaking the onward journey along the coast path. No change to the current *de facto* level of use of margin (beaches) as these areas are already utilised by the public and the Coastal Access rights will not provide extra accessibility to these areas.

5.4.4 Possible adverse impacts

There is evidence of existing pressure on birds using this section of the estuary (disturbance from people and dogs) and adverse effects of informal access to the salt marsh (trampling of vegetation).

5.4.5 Mitigation measures included in the access proposal to address any possible impacts

The large majority of intertidal areas in the seaward coastal margin (salt marsh and mudflat), including the

whole of Tollesbury Fleet and its feeder channels plus the Defra realignment site and its relic sea walls (TL 961 114), are deemed unsuitable for public access and require no further mitigation. To supplement this Natural England believes that it will be necessary to exclude access to part of the coastal margin as described below:

- Access is to be excluded from 1st May to 15th August each year in the coastal margin on the shingle spit at Tollesbury Wick Marshes adjacent to route section MSC-4-S001. This is proposed under s26(3)(a) of the CROW Act and supports current management for the Essex Wildlife Trust Site as it will prevent impact through trampling and direct disturbance of bird nesting sites during the breeding season. Interpretation panels will be installed to explain the need for this. This exclusion will not affect the route itself. See Map O in the Overview for details.

5.4.6 Conclusion

We have fully considered ecological sensitivities in this area alongside the current and predicted access levels. We have concluded that the absence of a significant increase in use coupled with the s25A CROW direction on public access and the s26(3)(a) CROW direction (seasonal restriction on public access) to the shingle spits delivers all necessary mitigation.

5.5 Old Hall Marshes to Salcott

5.5.1 Ecological sensitivity

The mudflats and salt marsh host significant numbers of the water bird assemblage. These are particularly sensitive to disturbance when feeding on the exposed tidal mudflats or when at roost on the salt marsh fringes closest to the sea at high tide. Disturbance is reduced where salt marsh acts as a buffer increasing the distance between the path and the exposed mud where birds are feeding. The Salcott Channel narrows at TL 961133 and current levels of access and disturbance may be the reason why birds do not feed in large numbers here. There are high tide mixed species roosts during the winter months on salt marsh at TL983103, TL989101, TL997115 and TL995123. The roosts are normally at the outer fringe of salt marsh which are often cut through by channels and ditches making access hazardous.

5.5.2 Proposed improvements to accessibility

No physical works are planned through the England Coast Path programme as the proposed route will align with existing public footpaths. The England Coast Path logo will be added to signage at appropriate locations to assist walkers in their onward progress.

As shown in maps N and M of the Overview the majority of the salt marsh and mudflats in the coastal margin will be subject to a s25A CROW direction as it is deemed unsuitable for public access.

In some places, a right of access may be created to parts of the coastal margin that are currently private land. Such new opportunities for access are subject to national and local restrictions and do not apply to areas of excepted land. Along this section of coast the main excepted land includes all buildings and their curtilage captured between the line of the proposed route and the Mean Low Water mark.

5.5.3 Access assessment

Current situation	Predicted change
RSPB Old Hall Marshes reserve is remote and the visitors' car park only opens daily from 9am-5pm. Attracts bird watchers and ramblers. Low visitor numbers at present. The rights of way that will be followed by the proposed trail are open at all times but the predicted level of use is likely to be limited. Rights of Way that will form the proposed trail are currently reasonably well used by walkers approaching from Salcott village, but this use decreases as one enters the more remote edges of the nature reserve.	Small increase in walkers anticipated along the trail from those undertaking the onward journey along the coast path. No change to the current *de facto* level of use of margin (beaches) as these areas are already utilised by the public and the Coastal Access rights will not provide extra accessibility to these areas.

5.5.4 Possible adverse impacts

There is evidence of existing pressure on birds using this section of the estuary (disturbance from people and dogs) and adverse effects of informal access to the salt marsh (trampling of vegetation).

5.5.5 Mitigation measures included in the access proposal to address any possible impacts

The large majority of intertidal areas in the seaward coastal margin (salt marsh and mudflat) are deemed unsuitable for public access and requires no further mitigation. To supplement this Natural England believes that it will be necessary to exclude access to part of the coastal margin as described below:

- Access is to be excluded from 1st May to 15th August each year in the coastal margin on the shingle spit at Old Hall Marsh adjacent to route section MSC-5-S003. This is proposed under s26(3)(a) of the CROW Act and supports current management for the RSPB site as it will prevent impact through trampling and direct disturbance of bird nesting sites during the breeding season. Interpretation panels will be installed to explain the need for this. This exclusion will not affect the route itself. See Map P in the Overview for details.

5.5.6 Conclusion

We have fully considered ecological sensitivities in this area alongside the current and predicted access levels. We have concluded that the absence of a significant increase in use coupled with the s25A CROW direction on public access and the s26(3)(a) CROW direction (seasonal restriction on public access) to the shingle spits delivers all necessary mitigation.

6. Establishing and maintaining the England Coast Path

In this part of the document we describe how the access proposal would be implemented and arrangements for ongoing management and maintenance once coastal access rights are in place.

Note that before the access proposal can be taken forward, the coastal access report must first be considered by the Secretary of State in light of any representations, any objections from affected owners or occupiers and the Appointed Person's recommendations as to how any objections should be determined.

6.1 Establishment

6.1.1 Works on the ground

Once approval for a coastal access report is received from the Secretary of State, works can be carried out on the ground to make the trail fit for use and prepare for opening. In this case, works on the ground would be carried out by Essex County Council.

An estimate of the total cost of works needed to establish the trail is given in our coastal access report for the stretch. The cost of establishment works will be met in full by Natural England.

Essex County Council is responsible for ensuring they take appropriate steps to protect sensitive features whilst works on the ground are carried out, in line with any recommendations or conditions agreed in advance.

We have held preliminary discussions with Essex County Council about the works required and believe that it is feasible for them to be carried out without adverse effect on the designated sites considered in this appraisal. The works are judged as minor such as erecting fingerpost way markers, installing directional arrow disks on existing infrastructure, interpretation boards and replacement of stiles with pedestrian gates. No major works are required.

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

6.1.2 Implementation of mitigation measures

No special mitigation measures are required.

6.1.3 Local restrictions or exclusions

Where specific restrictions or exclusions have been included in the proposal and are approved by the Secretary of State, Natural England will give the necessary directions before public rights come into force to make the rights subject to those restrictions or exclusions.

6.2 Maintenance

Where there is a need for ongoing maintenance of any special measures proposed, this will become part of longer term arrangements for upkeep of the trail. An overall estimate of the ongoing cost of maintaining stretches of the England Coast Path is given in the relevant part of our report for the stretch.

6.3 Monitoring

Monitoring of the protected sites will continue through established programmes including our common standards monitoring protocols. The access authority will be responsible for ongoing monitoring of trail condition. Natural England will be tracking general trends, including in the number of people using the path, as part of our evaluation of the coastal access programme nationally.

6.4 Future changes

The access proposals in this document are designed to ensure appropriate protection of sensitive features, taking account of any mitigation measures that are included. The coast is a dynamic environment and in designing the access proposals we have taken account of any changes predicted by the Environment Agency as a result of coastal erosion or other geomorphological processes. Should it be necessary in the future to identify a new alignment for the trail in line with 'roll back' proposals in the stretch report, due care will be taken at that stage to minimise any potential impacts of this change on sensitive features. The same will be true if any unforeseen other changes arise in the future that may require us to propose a variation of the access arrangements described in these proposals, following due procedures.

7. Conclusions

7.1 Overall conclusion – Natura 2000 site (Blackwater Estuary SPA)

7.1.1 Population level effects

Feature - or feature group	**Conclusion**
Waterbird assemblage: cormorant *(Phalacrocorax carbo)*, shelduck *(Tadorna tadorna)*, teal *(Anas crecca)*, pintail *(Anas acuta),* red-breasted merganser *(Mergus serrator),* avocet *(Recurvirostra avosetta)*, grey plover *(Pluvialis squatarola)*, lapwing *(Vanellus vanellus),* ruff *(Philomachus pugnax),* curlew *(Numenius arquata)*, dunlin *(Calidris alpina),* redshank *(Tringa totanus)*, bean goose (*Anser fabalis rossicus*), little egret (*Egretta garzetta*), smew (*Mergus albellus*), golden plover (*Pluvialis apricaria*), knot (*Calidris canutus*), bar tailed godwit (*Limosa lapponica*), green sandpiper (*Tringa ochropus*), greenshank (*Tringa nebularia*) and turnstone (*Arenaria interpres*)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A156 black-tailed godwit (*Limosa limosa islandica*) (Non-breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A059 pochard *Aythya ferina* (Breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A046a dark-bellied brent goose (*Branta bernicla bernicla*) (Non-breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A149 dunlin (*Calidris alpine alpina*) (Non-breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A141 grey plover (*Pluvialis squatarola*) (Non-breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A082 hen harrier (*Circus cyaneus*) (Non-breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A195 little tern (*Sterna albifrons*) (Breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
A137 ringed plover (*Charadrius hiaticula*) (Breeding)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.

7.1.2 **In combination assessment** – where applicable

Table A - Other qualifying plans or projects

Competent Authority	Plan or project	Description
Natural England	England Coast Path	Burnham-on-Crouch to Maldon (in progress) Mersea Island (in progress) Salcott to Jaywick (in progress)
Maldon DC	Housing project at Maylandsea	Housing project at Maylandsea has mitigation to be delivered at Tollesbury. This application (LPA ref: OUT/MAL/15/00610) is currently subject to an Appeal (APP/X1545/W/16/3153141). If this mitigation were compromised by the ECP, this would in theory leave an unmitigated impact on the Blackwater south side. Natural England believe this is unlikely and the ECP will not in itself prevent development, nevertheless it is within scope of the in-combination Habitats Regulation Assessment.

At the time of carrying out this appraisal, Natural England is not aware of any other qualifying plans or projects that need to be considered.

Table B - Possible in combination effects

Non-significant effect – access proposal	Non-significant effect – other plan or project	In combination conclusion
None	None	None

7.1.3 Overall screening decision

In the light of this appraisal, Natural England has reached this conclusion about the new access proposal:

X	**No likely significant effect** - as the new access proposal is unlikely to have a significant effect on the Blackwater Estuary SPA, either alone or in combination with other plans or projects, (taking into account any proposed mitigation measures) no further Habitats Regulations assessment is required;

OR

	Likely significant effect - as the new access proposal is likely to have a significant effect on the Blackwater Estuary SPA, either alone or in combination with other plans or projects (despite any proposed mitigation measures), appropriate assessment is required to consider whether the new access proposal may proceed.

7.2 Overall conclusion – Natura 2000 site (Essex Estuaries SAC)

7.2.1 Population level effects

Feature - or feature group	**Conclusion**
H1330 Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)*	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
H1130 Estuaries	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
H1420 Mediterranean and thermo-Atlantic halophilus scrubs *(Sarcocornetea fruticosi)* (Mediterranean salt marsh scrub)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
H1140 Mudflats and sandflats not covered by sea water at low tide (Intertidal mudflats and sandflats)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
H1310 *Salicornia* and other annuals colonising mud and sand.	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
H1110 Sandbanks which are slightly covered by sea water all the time (Subtidal sandbanks)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.
H1320 *Spartina* swards *(Spartinion maritimae)* (Cord-grass swards)	No possible adverse effects from the access proposal (taking into account any proposed mitigation measures) have been identified.

7.2.2 **In combination assessment** – where applicable

Table C - Other qualifying plans or projects

Competent Authority	**Plan or project**	**Description**
Natural England	England Coast Path	Burnham-on-Crouch to Maldon (in progress) Mersea Island (in progress) Salcott to Jaywick (in progress)
Maldon DC	Housing project at Maylandsea	Housing project at Maylandsea has mitigation to be delivered at Tollesbury. This application (LPA ref: OUT/MAL/15/00610) is currently subject to an Appeal (APP/X1545/W/16/3153141). If this mitigation were compromised by the ECP, this would in theory leave an unmitigated impact on the Blackwater south side. Natural England believe this is unlikely and the ECP will not in itself prevent development, nevertheless it is within scope of the in-combination Habitats Regulation Assessment.

At the time of carrying out this appraisal, Natural England is not aware of any other qualifying plans or projects that need to be considered.

Table D - Possible in combination effects

Non-significant effect – access proposal	Non-significant effect – other plan or project	In combination conclusion
None	None	None

7.2.3 Overall screening decision

In the light of this appraisal, Natural England has reached this conclusion about the new access proposal:

X	**No likely significant effect** - as the new access proposal is unlikely to have a significant effect on the Essex Estuaries SAC, either alone or in combination with other plans or projects, (taking into account any proposed mitigation measures) no further Habitats Regulations assessment is required;

OR

	Likely significant effect - as the new access proposal is likely to have a significant effect on the Essex Estuaries SAC, either alone or in combination with other plans or projects (despite any proposed mitigation measures), appropriate assessment is required to consider whether the new access proposal may proceed.

7.3 Overall conclusion – Blackwater Estuary SSSI

In the light of this appraisal, Natural England has concluded that the new access proposal:

X	**complies** with Natural England's duty to further the conservation and enhancement of the notified features of the Blackwater Estuary SSSI, consistent with the proper exercise of its functions[1] - and accordingly the new access proposal may proceed as finally specified in this template

OR

	would not comply with the duty referred to in (a) – and accordingly permission/ authorisation/ assent should not be given for the new access proposal in the form finally specified in this template, for the following reasons:

[1] The reference in 7.2 above to Natural England's functions includes its balanced general purposes for access, nature conservation and landscape under the NERC Act 2006, any specific statutory duties it may have to deliver specific improvements to public access, and the access-related policies and priorities it periodically agrees with Defra.

7.4 Overall conclusion: Marine Conservation Zone

In respect of any duties that may arise under section 125 of the Marine and Coastal Access Act 2009, Natural England has concluded for the Blackwater, Crouch, Roach and Colne Estuaries MCZ that:

X	The access proposal (including any special measures specified in this appraisal) is the one that, consistently with the proper exercise of its functions under section 296 of the same Act, is least likely to hinder the achievement of the conservation objectives for the Marine Conservation Zone - and accordingly may proceed.

OR

	The above test is not met, and accordingly the access proposal should not be taken forward in this form, for the following reasons:

7.5 Overall conclusion - National Nature Reserve

In the light of this appraisal, Natural England has concluded that the new access proposal:

X	**will not compromise** the management of the National Nature Reserve for its conservation purpose of preserving features of special interest in the area

OR

	would compromise the management of the National Nature Reserve for its conservation purpose of preserving features of special interest in the area - and accordingly the new access proposal should not proceed in the form finally specified in this template, for the following reasons:

8. Certification

8.1 Certification – access proposal

I agree with the conclusions of this appraisal and am satisfied that the final access proposal, incorporating any special measures, is the least restrictive option necessary to ensure appropriate protection of sensitive features.		
Name: Phil Sturges	Signed: 	Date: 30 March 2017

8.2 Certification – environmental impacts

I agree with the conclusions of this appraisal and am satisfied that potential environmental impacts of the access proposal on the Blackwater Estuary SPA/Ramsar site/SSSI/NNR, Essex Estuaries SAC and Blackwater, Crouch, Roach and Colne Estuaries MCZ have been fully addressed.		
Name: Chris Keeling	Signed: 	Date: 30 March 2017

9. References

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