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**Assessment of Coastal Access Proposals
between Southend-on-Sea and Wallasea Island
on sites and features of nature conservation concern
2019**



About this document

This document should be read in conjunction with the published Reports and the Habitats Regulations Assessment (HRA) for the Southend-on-Sea to Wallasea Island Stretch.

The Coastal Access Reports contain a full description of the access proposals, including any additional mitigation measures that have been included. These Reports can be viewed here:

<https://www.gov.uk/government/publications/england-coast-path-from-southend-on-sea-to-wallasea-island-comment-on-proposals>

A HRA is required for European sites (SPA, SAC and Ramsar sites). The HRA is published alongside the Coastal Access Reports.

This document, the Nature Conservation Assessment (NCA), covers all other aspects including Sites of Special Scientific Interest (SSSIs), Marine Conservation Zones (MCZs) and undesignated but locally important sites and features, **in so far as any HRA does not already address the issue for the sites and feature(s) in question**. It covers geological as well as biological sites and features.

Evidence from a range of sources has been used in this NCA, including information held locally by external partners, land owners and occupiers. We wish to thank in particular the RSPB, Essex Wildlife Trust and GeoEssex for providing information on some of the sites and features considered in this assessment.

The NCA is arranged site by site. Map 1 shows nationally designated sites along this stretch of coast.

See Annex 1 for an index to designated sites and features for this stretch of coast, including features that have been considered within the HRA.

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Assessment of coastal access proposals on Benfleet and Southend Marshes SSSI

Is this site also part of a European site? Yes. The SSSI boundaries coincide with those of the Benfleet and Southend Marshes SPA and Ramsar site except in the western part of the SSSI, over 10 km from this Coast Path stretch.

Note that this assessment does not cover notified features of the SSSI that are also qualifying features of the European sites, because they are considered in the HRA for this Coast Path stretch. Also, it does not cover SSSI features that are components or sub-features of European site features, as they are also considered in the HRA.

Benfleet and Southend Marshes SSSI has six non-breeding waterbird features (see Annex 1, Table 1), one of which (redshank) is not a feature of the SPA or Ramsar site. However redshank is one of the main component species of the SPA and Ramsar site's non-breeding waterbird assemblage and so is considered in the HRA.

Therefore the only features of the SSSI considered here are non-avian ones (see Annex 1, Table 2) namely:

- SM13a saltmarsh;
- SM14 saltmarsh;
- vascular plant assemblage; and
- invertebrate assemblage.

Current situation

The SSSI only lies adjacent to this Coast Path stretch at its extreme eastern end, at Barge Pier, Shoebury Ness. Its large easternmost unit (13 – Southend Flats) extends for more than 5 km west of the pier and consists entirely of intertidal flats. This unit is important for the SSSI's non-breeding waterbirds (considered in the HRA) but does not contain SM13a or SM14 saltmarsh or other supporting habitats of the notified invertebrate assemblage, and it only provides supporting habitat for one member of the notified plant assemblage: dwarf eelgrass *Zostera noltii*. The nearest recorded eelgrass beds in this unit are over 1.5 km west of Barge Pier (Environment Agency Seagrass data). On the easternmost 500 m of the flats (the area closest to this Coast Path stretch) public access is prohibited under MoD byelaws.

Risk analysis

There is no risk to any of the non-avian features of the SSSI because: (i) Public access onto the site is prohibited under MoD byelaws within 500 m of this Coast Path stretch; (ii) The intertidal flats that make up the entirety of the SSSI within a few km of the stretch only support one species in the notified plant assemblage (*Z.noltii*) and no other non-avian features.

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? No

Assessment of coastal access proposals on Foulness SSSI

Is this site also part of a European site? Yes. The SSSI boundaries follow those of the Foulness SPA and Ramsar site except at the site's southwestern end where SSSI unit 1 (Old Shoeburyness Ranges) lies outside the SPA and Ramsar site, just north and west of Barge Pier, Shoebury Ness. Intertidal parts of the SSSI lie within the Essex Estuaries SAC.

Note that this assessment does not cover notified features of the SSSI that are also qualifying features of the European sites, because they are considered in the HRA for this Coast Path stretch. Also, it does not cover SSSI features that are components or sub-features of European site features, as they are also considered in the HRA.

The four breeding bird features of the SSSI are also features of the SPA, as are six of its nine non-breeding bird features (see Annex 1, Table 1). The three exceptions - dunlin, shelduck and curlew – are all main component species of the SPA and Ramsar site's non-breeding waterbird assemblage, so they are also considered in the HRA.

Of the SSSI's non-avian features (see Annex 1, Table 2), SM13a and SM14 saltmarsh are both vegetation types which are components of SAC habitat H1330 Atlantic salt meadows. The SSSI's notified plant and invertebrate assemblages are qualifying features of the Ramsar site. The notified Schedule 8 plant *Atriplex pedunculata* is a member of the Ramsar site wetland plant assemblage, so is considered in the HRA as part of that feature.

Therefore the only SSSI features not considered in the HRA, and so requiring consideration here, are:

- any features supported by SSSI unit 1, because that lies outside the European sites; and
- the SD2 *Honkenya peploides* – *Cakile maritima* strandline community.

Foulness SSSI unit 1 is 6.2 ha of sandy, unimproved grassland and scrub that is important for species in the SSSI's notified invertebrate and vascular plant assemblages. It lies inland and just west of the extreme western end of this Coast Path stretch and is managed by Essex Wildlife Trust, along with the adjacent undesignated land at Gunners Park. Unlike the rest of the park, the SSSI unit is securely fenced and access is only by arrangement with the Wildlife Trust, due to the fragility of the vegetation. Our access proposals do not affect access rights on this SSSI unit. Moreover, as Gunners Park is already a popular public green space, promotion of the Coast Path is, at most, only expected to result in a small increase in levels of use in the surrounding area. Our access proposal is therefore unlikely to have any effect on the interest features that this SSSI unit supports.

The two sections below consider effects on the SD2 strandline plant community in more detail.

Current situation

The SD2 strandline community is distributed patchily along the open coast of Foulness from Shoeburyness to Foulness Point. The feature is predominantly found well within the MoD-restricted area and several km from the proposed Coast Path route. But it is present along the strandline at East Beach, Shoeburyness, a popular public beach about 750 m long managed by Southend-on-Sea Borough Council. There is an area of amenity grassland immediately behind the beach with two large car parks, toilets, barbeque areas and park benches. The shared landward boundary of the Foulness SSSI, SPA and Ramsar site and the Essex Estuaries SAC runs along the seaward edge of the grassland. The SD2 strandline community lies just within that boundary, near the top of the beach. It currently suffers disturbance and trampling damage due to the high levels of public use. Probably as a result, the community is less species-rich here than elsewhere on the SSSI. But it still includes some typical species including sea sandwort *Honkenya peploides* and a few strandline and fore dune species that are scarce in Essex, such as sea-holly *Eryngium*

maritimum. MoD byelaws apply seaward of the Mean High Water line just beyond the beach, but not to the higher parts where the SD2 community occurs.

Risk analysis

At East Beach, the proposed trail alignment runs through the amenity grassland, roughly parallel to the beach and about 10 m to 30 m inland of the SSSI boundary. The area where the SD2 community occurs will therefore fall within spreading room¹. But as the beach is already well known and publicised we predict that promotion of the Coast Path will, at most, only result in a small increase in public use of the area above the current baseline level. To mitigate the risk of a small increase in trampling damage, our access proposals include advisory signs by the trail at the south and north ends of the beach. These will inform the public of the strandline community and other unusual plants near the top of the beach and request that trampling the vegetated areas is avoided as far as possible. This advice will be combined with similar messages about the beds of eelgrass (*Zostera* spp.) on the intertidal flats just beyond the beach, which are discussed in part D3.2A of the HRA. If the new advice influences the behaviour of even a small proportion of visitors as intended, it may counteract any potential effect of the Coast Path and may reduce damage below current baseline levels.

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? Yes.

Only minor works are required, such as erecting signs and replacing styles with pedestrian gates on seabanks. These only affect a few square metres of the SSSI in total. But where a proposed works area could support species in the vascular plant assemblage, it should be examined before work is started. In the unlikely event that nationally scarce plants are found, then the location should be adjusted to avoid them if possible (for example adjusting the position of a sign) or appropriate mitigation measures taken, in consultation with Natural England. The nationally scarce plants most likely to occur on the tops of seabanks in this SSSI are annual species. For these, collecting seed and redistributing it in suitable habitat nearby may be sufficient mitigation.

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

Assessment of coastal access proposals on the Crouch and Roach Estuaries SSSI

Is this site also part of a European site? Yes. The SSSI boundaries follow those of the Crouch and Roach Estuaries SPA and Ramsar site throughout. Intertidal parts of the SSSI lie within the Essex Estuaries SAC.

Note that this assessment does not cover notified features of the SSSI that are also qualifying features of the European sites, because they are considered in the HRA for this Coast Path stretch. Also, it does not cover SSSI features that are components or sub-features of European site features, as they are also considered in the HRA.

The eight non-breeding bird species that are features of the SSSI include seven that are not SPA or Ramsar site features (see Annex 1, Table 1). However these are all main component species of the SPA and Ramsar site's non-breeding waterbird assemblage, so they are considered in the HRA.

¹ Spreading room is land, other than the Coast Path trail itself, which forms part of the coastal margin and which has public rights of access.

Of the SSSI's non-avian features (see Annex 1, Table 2), SM13a and SM14 saltmarsh are both vegetation types that are components of SAC feature H1330 Atlantic salt meadows. And the SSSI's notified plant and invertebrate assemblages are qualifying features of the Ramsar site.

Therefore the only SSSI feature not considered as part of the HRA, and so requiring consideration here, is the SSSI's lowland ditch system.

Current situation

Much of the SSSI's freshwater to brackish ditch system lies beyond this Coast Path stretch, within grazing marshes along the Crouch Estuary. However, the feature does include some brackish ditches in the three small areas of grazing marsh (SSSI unit 55) on the south side of the Roach Estuary between Mucking Hall and Butler's Farm, and also brackish borrow dykes behind seabanks on Wallasea Island.

Risk analysis

The parts of the SSSI ditch system near this Coast Path stretch are all inland of the proposed route and the coastal margin. But on the south side of Wallasea Island, and on the upper Roach between Mucking Hall and Butler's Farm, new sections of trail are proposed where there is a borrow dyke or ditch just beyond the inland limit of the coastal margin. On the upper Roach, the margin extends to the seaward edge of the borrow dyke. On the south side of Wallasea Island it does not extend inland of the trail, which runs 5 to 15 m seaward of the borrow dyke. At both locations we expect our proposals to result in a moderate increase in levels of use above the currently low baseline levels.

Ditches and borrow dykes, and the flora and fauna they support, are likely to be sensitive to factors affecting water levels or water quality, such as local weather conditions, ditch management operations, fertiliser or pesticide applications on nearby farmland, and the state and operation of sluices and other water control structures. But their condition is unlikely to be sensitive to public access on adjacent foldings and seabanks unless that reaches high levels, when trampling and physical disturbance could become a problem, for example by causing damage to bankside and aquatic vegetation and increasing turbidity. However, such damage has not been recorded on this SSSI, even on sections of borrow dyke or ditch adjacent to the busiest parts of the site near towns and villages along the Crouch Estuary. We therefore consider that localised moderate increases in levels of use near a small proportion of the SSSI's ditch system as a result of our proposals are unlikely to have any adverse effect on this feature. On the south side of Wallasea Island the risk of adverse effects is reduced further by the 'no dogs' restriction, the fact that the borrow dyke is 5 to 15 m inland of the coastal margin, and the use of an alternative inland route during the wildfowling season for the western 2 km of the trail.

Establishment works

Is SSSI assent needed to implement any specific proposals for establishment works? Yes

The small amount of establishment work required is mainly outside the SSSI boundary. Only a few square metres of the SSSI are affected, the main infrastructure items being some signage on or just inland of seabanks and a new footbridge. The latter is on the route of an existing public footpath that crosses upper/transitional saltmarsh just within the SSSI boundary (route section SWI-5-S010). It will occupy an area of about 5 m².

Where a proposed works area could support species in the vascular plant assemblage, it should be examined before work is started. In the unlikely event that nationally scarce plants are found, the location should be adjusted to avoid them if possible (for example adjusting the position of a sign) or appropriate mitigation measures taken, in consultation with Natural England. The nationally scarce plants most likely to occur on the tops of seabanks in this SSSI are annual species. For these, collecting seed and redistributing

it in suitable habitat nearby may be sufficient mitigation. When installing the foot bridge, care must be taken to avoid damage to the adjacent saltmarsh.

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

Assessment of coastal access proposals on the Blackwater, Crouch, Roach and Colne Estuaries MCZ

Is this site also part of a European site? Yes. Nearly all parts of the MCZ along this Coast Path stretch overlap the Essex Estuaries SAC, though its qualifying features are quite distinct. The only exception is Allfleets Marsh on Wallasea Island: parts of Allfleets Marsh below Mean High Water are within the MCZ but not within the SAC, as that has not yet been re-designated to include the managed realignment site created in 2006. Intertidal parts of the MCZ also overlap either the Foulness or the Crouch and Roach Estuaries SPAs and Ramsar sites.

Note that features of the MCZ that are also qualifying features of one of the European sites mentioned above are fully considered within the associated HRA.

A full list of designated features for this site can be found in Annex 1. Information from Natural England's Conservation Advice for the MCZ (available via the link below) has been used for the risk analysis below.

<https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UKMCZ0003&SiteName=crouch&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Blackwater,%20Crouch,%20Roach%20and%20Colne%20Estuaries%20MCZ>

Current situation and risk analysis

Feature	Current situation	Risk analysis
Intertidal mixed sediments	A sub-feature of SAC feature H1140 Intertidal mudflats and sandflats. Intertidal mixed sediments have been identified in parts of the Blackwater Estuary and on the north bank of the Crouch Estuary upstream of Burnham-on-Crouch.	No risk. The nearest known location for the feature is separated from this Coast Path stretch by the main channel of the Crouch. Also, all intertidal flats on this stretch that are not restricted under MoD byelaws are considered unsuitable for public access, so access will be excluded by direction.
Native oyster (<i>Ostrea edulis</i>)	Wild native oysters occur sporadically within the MCZ, including in the Crouch and Roach Estuaries and their side channels. Cultivated native oysters also occur within the estuaries, however protection is only afforded to the wild stock. Populations are predominantly clustered around the sublittoral parts of the outer Blackwater and Colne estuaries, the Ray Sand Channel	Negligible risk. Though native oysters sometimes occur in the lower intertidal zone, populations are concentrated in subtidal parts of the MCZ (that is, in areas that remain underwater even at low tide). The risk of disturbance as a result of our access proposal is reduced further because all intertidal areas on this stretch that are not restricted under MoD byelaws are considered unsuitable for

Feature	Current situation	Risk analysis
	and the outer Crouch Estuary. Conservation advice for the MCZ sets 'recover' or 'restore' targets for several attributes of this feature.	public access, so access will be excluded by direction.
Native oyster (<i>Ostrea edulis</i>) beds	Native oysters beds are defined where native oysters are found at a density of five or more per m ² using a dredge efficiency of 20%. This density is used in tandem with other defining indicators including the associated epibenthos community, scale and ground type (sublittoral mixed sediment). Conservation advice for the MCZ sets 'recover' or 'restore' targets for several attributes of this feature.	Negligible risk, for the reasons given above.
Clacton Cliffs and foreshore	A geological feature of fossiliferous deposits in intertidal and subtidal areas off Clacton-on-Sea, near the northeastern limit of the MCZ.	No risk. At its nearest point, the feature is about 25 km from this Coast Path stretch.

Establishment works

Renovation of the two footbridges across the upper Roach at Stambridge Mills (route sections SWI-4-S006 and SWI-4-S008) as part of the access proposals will require a Flood Risk Activity Permit from the Environment Agency. The MCZ lies immediately downstream of this bridge so Natural England will provide statutory advice to the Agency on any conditions needed for the permit to ensure MCZ features are not adversely affected.

Assessment of coastal access proposals on Local Wildlife Sites and geological sites

Are these sites also part of a European site? In line with current Defra guidance, Local Wildlife Sites do not overlap SSSIs or other nationally/internationally designated wildlife sites. The geological sites considered do overlap designated sites but their geological interest is not covered by the designations.

Local Wildlife Sites (LoWS) within Southend-on-Sea Borough and Rochford District were screened using information available in the Southend-on-Sea Borough Local Wildlife Sites Review 2011, Appendix 2 [Ref 4] and the Rochford District Wildlife Sites Review 2007 [Ref 3].

Southend-on-Sea Borough and Rochford District do not currently have any notified Local Geological Sites but for both we have screened lists of geological sites identified by GeoEssex and listed on the group's website (<http://www.geoessex.org.uk/index.html>).

Sites are assessed further in the section below if:

- a) the proposed Coast Path route crosses them; or
- b) they fall at least partly within spreading room; or
- c) they lie immediately inland with no fence or other barrier separating them from spreading room.

None of the three Southend-on-Sea and Rochford geological sites listed on the GeoEssex website and lying near this Coast Path stretch meet the criteria above. Two (Shoeburyness Foreshore and Foulness Island & Maplin Sands) are areas within the Foulness designated site where public access is restricted under MoD byelaws. The third is Allfleets Marsh, Wallasea Island, (now included in the Crouch and Roach Estuaries SSSI, SPA and Ramsar site) where access will be excluded by direction. A fourth site, Baldwin's Farm and Barling Hall Gravel Pits (TQ935899) was mentioned in our dialogue with GeoEssex but is not listed on their website. This appears to be an area of flooded gravel pits inland of the Coast Path route and separated from spreading room by ditches or fencing.

Current situation and risk analysis: Local Wildlife Sites

Sites are listed in their order along the stretch, starting at Shoebury Ness.

So9 Shoebury Lake and Grasslands (10.9 ha) TQ 931841:

Current situation: Sandy coastal grassland with a brackish lake excavated in 2005/6. The area is part of Gunners Park, has full public access and is managed by Essex Wildlife Trust. It was selected as a LoWS primarily as accessible natural greenspace which allows the public to experience a range of coastal habitats without causing damage to the more fragile areas on the adjacent Old Shoeburyness Ranges (Foulness SSSI unit 1, discussed above), which are fenced off.

Risk analysis: The eastern part of the site, including the lake, lies immediately adjacent to trail sections SWI-1-S001 to S003. Our coastal access proposal here uses existing walked routes and does not change access rights on the site. This LoWS is already well used by the public and promotion of the Coast Path is only expected to result in a small increase in levels of use, at most. Therefore adverse effects on the site are unlikely.

R38 Great Wakering Common (4.5 ha) TQ 954878

Current situation: Part of a registered common with scrub, grassland and a pond; and plant, invertebrate, amphibian and bird interest. There is a 'Friends of' group that carries out site management activities.

Risk analysis: Proposed trail sections SWI-1-S064 to S069 run through the site from west to east, following existing walked routes and public footpaths that are already regularly cut. The whole common falls within spreading room. The site is well used by local residents and promotion of the Coast Path is only expected to result in a small increase in levels of use, at most. Therefore adverse effects on the site are unlikely.

R37 Wakering Landfill Site (24.0 ha) TQ953886

Current situation: Coastal grassland with scattered scrub and some pools on an old landfill site. The known interest is mainly botanical, including two nationally scarce species, but the site is also likely to support a diverse invertebrate fauna.

Risk analysis: Sections SWI-2-S009 to S012 and SWI-2-S018 of the proposed Coast Path route run around the eastern edge of the site following existing public footpaths and other walked routes on the seabank around the Mill Head intertidal area. The site is accessible to the public and is crossed by another public footpath and an access track to a boatyard. Its level of use by local residents appears to be

moderately high. Promotion of the Coast Path is expected to result in no more than a small increase in use and adverse effects on the site are unlikely.

R28 River Roach at Rochford (8.1 ha) TQ 883903

Current situation: A mosaic of coastal and brownfield habitats, with plant and probable invertebrate interest, about 400 m upstream of the Crouch and Roach Estuaries SSSI, SPA and Ramsar site and the Essex Estuaries SAC, and immediately adjacent to the upstream boundary of the Blackwater, Crouch, Roach and Colne Estuaries MCZ.

Risk analysis: Sections SWI-4-S005 to S010 of the proposed Coast Path route run around the downstream edge of the site mainly along low seabanks, following an existing public bridleway that crosses the narrow river channel via two footbridges. Parts of the site adjacent to the route are mainly mid-zone saltmarsh. This habitat is potentially sensitive to trampling but our proposal will not increase access rights on it, because the upstream edge of spreading room follows the seabank. And as the route uses existing public rights of way here, promotion of the Coast Path is expected to result in no more than a small increase in levels of use. Natural England and the Environment Agency will ensure that renovation of the footbridges, which forms part of the access proposal, is carried out so as to avoid any impacts on intertidal habitats up or downstream. Therefore adverse effects on the site are unlikely.

R36 Paglesham Seawall (12.3 ha) TQ945917

Current situation: The site includes the botanically-rich seabank along the north side of the Roach from Stannetts Creek Lagoon to the mouth of Paglesham Pool, as well as the folding and borrow dyke behind the seabank. It lies just beyond the inland boundary of the Crouch and Roach Estuaries SSSI, SPA and Ramsar site, which follows the seaward face of the seabank here. Plant interest includes at least four nationally scarce species that are constituents of the Ramsar site wetland plant assemblage. The borrow dyke supports a water vole population.

Risk analysis: Sections SWI-4-S029 to SWI-5-S003 of the proposed Coast Path route run through the site, following the existing public footpath along the crest of the seabank. Spreading room does not extend inland of the seabank. The route uses existing public footpaths and promotion of the Coast Path is expected to result in no more than a small increase in levels of use. Natural England will liaise with Essex County Council to ensure cutting is limited to the seabank crest and is kept to the minimum needed to ensure the trail is easily walkable. Therefore adverse effects on the site are unlikely.

R33 Canewdon Special Roadside Verge (0.2 ha, 210 metres approximately) TQ924947 to TQ925945

Current situation: A narrow strip of upper/transitional saltmarsh vegetation either side of a tidal ditch running adjacent to part of Creeksea Ferry Road on the inland side. Originally selected primarily because it supported Essex Emerald Moth (now extinct in the UK), the site still has botanical interest. Threats include fly-tipping, inappropriate verge-cutting or road widening.

Risk analysis: Section SWI-5-S011 and most of SWI-5-S012 of the proposed Coast Path lie immediately adjacent. The route is on the road here and there is no proposal to cut or surface the verge. Promotion of the Coast Path is expected to result in no more than a small increase in use. Walkers are unlikely to trample the verge because the road is not busy and has good sight lines, and the verge slopes into the ditch. Adverse effects on the site are therefore unlikely.

R39 Wallasea Island Managed Realignment (90.3 ha) TQ964946

Current situation: As for the consideration of the complementary GeoEssex site mentioned above, this Local Wildlife Site is superseded by the re-designation of Allfleets Marsh as part of the Crouch and Roach

Estuaries SSSI, SPA and Ramsar site, where access will be excluded by direction. See the accompanying Habitats Regulations Assessment (HRA) for further details.

Risk analysis: Not applicable.

Establishment works

Renovation of the two footbridges across the upper Roach at Stambridge Mills (route sections SWI-4-S006 and SWI-4-S008) as part of the access proposal will require a Flood Risk Activity Permit from the Environment Agency. Natural England will provide statutory advice to the Agency on any conditions needed for the permit to ensure features of the designated sites downstream and LoWS R28 immediately upstream are not adversely affected.

Assessment of coastal access proposals on undesignated species

This section covers species that are neither qualifying features of designated sites, nor constituents of species assemblages that are qualifying features, and so have not been considered in the HRA for this stretch or in the sections above. Our approach when screening species for risk assessment has been to: (i) consider those which, because of their habitat requirements, may be concentrated close to the proposed route or within spreading room and which are scarce or threatened; (ii) concentrate on parts of the proposed route that do not follow existing public rights of way or other walked routes, so implementation may result in an appreciable increase in levels of use. On this stretch the two main areas where new access is proposed are: (a) the south side of the Roach Estuary between Mucking Hall and Fleet Hall; and (b) the south and east sides of Wallasea Island.

When considering threat status, we have taken into account bird species given legal protection against intentional or reckless disturbance during the breeding season under Schedule 1 of the Wildlife and Countryside Act (as amended) ('Schedule 1 species') and those that are Red or Amber listed as Birds of Conservation Concern [Ref 2] ('red/amber list species'). For other vertebrates we have paid special attention to species protected under the Conservation of Habitats and Species Regulations 2017 ('European Protected Species') or the Wildlife and Countryside Act (as amended).

Current situation and risk analysis

Species or species group	Current situation	Risk analysis
Schedule 1 and red/amber listed breeding birds (* denotes a Schedule 1 species)	We know of nesting records near the stretch for the following species [Refs 1, 3 & 9]: Mediterranean gull*, little ringed plover*, lapwing, oystercatcher and redshank: on Wallasea Island RSPB reserve, ground nesting on upper parts of Jubilee Marsh and/or inland of the proposed route. Redshank also nest in small numbers on upper saltmarsh along	We do not expect any appreciable increase in disturbance to these breeding species as a result of the access proposal, for the following reasons: a) The route follows existing rights of way or other walked routes for most of its length. In these areas promotion of the Coast Path is unlikely to result in more than small increases in levels of use. b) On Wallasea Island, access to Jubilee Marsh will be excluded by direction year-round on nature

Species or species group	Current situation	Risk analysis
	<p>Paglesham Creek and possibly elsewhere along the stretch.</p> <p>Pochard: on the north and south sides of Wallasea Island, at Stannetts Creek Lagoon on the Roach, and at Barling Pits, by well vegetated borrow dykes and other water bodies.</p> <p>Cetti's warbler*: near the pond on LoWS R38; may also nest elsewhere on the stretch near water bodies with bankside reeds and scrub.</p>	<p>conservation grounds and there will be a 'no dogs' restriction on all parts of the route that are not currently public rights of way. In addition, the inland limit of spreading room is close to the trail and the main nesting areas inland of it are separated by fencing and/or water barriers.</p> <ul style="list-style-type: none"> c) Most of Wallasea Island is a managed and wardened RSPB reserve with no vehicle access when the reserve is closed. d) All areas of saltmarsh that may support breeding redshank are unsuitable for public access, so access will be excluded by direction. e) All the known nesting areas for pochard are inland of spreading room. They are either in areas where promotion of the Coast Path is not expected to increase levels of use appreciably, or in areas where we propose a 'no dogs' restriction. f) Wetland passerines that nest in thick cover, (such as Cetti's, reed and sedge warblers, reed bunting and bearded tit) are generally tolerant of moderate levels of access in open areas near their nest sites, provided the stands of vegetation they are nesting in are not disturbed. g) Other red/amber listed birds recorded near this stretch which are farmland rather than wetland species (such as skylark, corn bunting and yellowhammer) are unlikely to have breeding territories concentrated close to the route.
Target bird species that the RSPB hopes to attract to the Wallasea Island Wild	These species do not currently breed on the reserve and are uncommon/ rare visitors to Essex, usually on passage. But records of spoonbill and black-winged stilt have been increasing and all three species may expand their breeding	The spoonbill nesting area is in an inaccessible part of the coastal margin over 500 m from the Coast Path route. But there is suitable feeding habitat for all three species and nesting habitat for the two wader species closer to the trail, in the coastal margin and also around

Species or species group	Current situation	Risk analysis
Coast Project reserve: spoonbill, black-winged stilt and Kentish plover [Ref 1].	ranges into the county as a result of climate change. The RSPB has created suitable wetland feeding and nesting habitat for them on the reserve, including a scrub-covered island suitable for breeding spoonbills.	lagoons inland of the flood defences. However, the mitigation measures proposed to limit disturbance to bird species that are SPA or Ramsar site qualifying features (see the HRA for details) should also be effective in limiting disturbance to the three target species, as well as to the other Schedule 1 and amber/red listed birds already nesting on the reserve (see above).
Overwintering raptors	The Essex Coast supports important numbers of several raptor species during the winter, including short-eared and barn owls, peregrine, merlin, and marsh and hen harriers. Most are red or amber listed species but only the last is a designated site qualifying feature in Essex. Overwintering raptors hunt over large areas and are generally widely and thinly dispersed across the coastal zone in semi-natural and farmed habitats. But the new wetland and coastal grassland areas created on Wallasea Island have provided very good conditions for prey species, so the island is now one of the best sites on the Essex coast for overwintering raptors [Ref 1].	These species are generally sensitive to disturbance and our proposal includes several km of new access on Wallasea Island. But we do not expect any appreciable increase in disturbance because the alignment of the route and directions to exclude access on nature conservation grounds (proposed primarily to reduce disturbance to birds that are designated site features) will also limit disturbance to overwintering raptors. The RSPB's wardening and management of the reserve and their control over vehicle access also reduces the risk of increased disturbance.
Water vole	A European Protected Species threatened by habitat loss and mink predation. Scattered populations survive in borrow dykes and grazing marsh ditches along the Essex Coast. There is a known population on Wallasea Island, where an area of new ditches has been created in the southwest part of the RSPB reserve to compensate for loss of habitat elsewhere on the island. There are also records from borrow dykes in LoWS R36 (see above) and the species is likely to occur in	Appreciable adverse effects are only likely where coastal access proposals allow new public access, particularly by dog walkers, immediately adjacent to good quality water vole habitat, or if establishment works damage or disturb the habitat. On this stretch, the ditches and borrow dykes adjacent to the proposed new access along the south side of the Roach are sub-optimal for water voles because they are either too saline or are narrow ditches that dry out in summer. Those on the south side of Wallasea Island are more suitable but the year-round 'no dogs' restriction on all

Species or species group	Current situation	Risk analysis
	similar habitat elsewhere along the stretch.	new access on the island will substantially reduce the risk of disturbance, as will the fact that the coastal margin does not extend inland of the trail, which runs 5 to 15 m seaward of the borrow dyke here.
Native reptiles and amphibians	Great crested newt (a European Protected Species) has been recorded from the pond on LoWS R38 [Ref 3]. Of the other native species (all protected under the Wildlife and Countryside Act), adder, common lizard and slow worm are often found on Essex seabanks and in rough grassland near the coast.	<p>Our proposals are unlikely to result in more than a small increase in levels of use on LoWS R38 (see LoWS section above). Elsewhere on the stretch, most borrow dykes and ditches next to seabanks are probably too saline to provide suitable habitat for great crested newts or any other amphibians.</p> <p>Reptiles on the seabanks are unlikely to be affected appreciably because along much of this stretch the trail uses existing walked routes and promotion of the Coast Path is unlikely to result in more than small increases in use. On Wallasea Island the year-round 'no dogs' restriction on all new access will reduce the risk of disturbance.</p>

Establishment works

When carrying out establishment works Essex County Council will comply with Natural England's standing advice on protected species and we will provide additional site-specific advice as required.

Conclusion

We, Natural England, are satisfied that our proposals to improve access to the English coast between Southend-on-Sea and Wallasea Island are fully compatible with our duty to further the conservation and enhancement of the notified features of Benfleet and Southend Marshes SSSI, Foulness SSSI, and Crouch and Roach Estuaries SSSI, consistent with the proper exercise of our functions².

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 the access proposal (including any mitigation measures specified) 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.

In respect of undesignated Local Wildlife Sites, geological sites, and species we are satisfied that in developing the new access proposals the appropriate balance has been struck between Natural England's conservation and access objectives, duties and purposes.

See also, where relevant, the conclusions of the separate HRA relating to common features.

The conclusions of this assessment have been checked by:

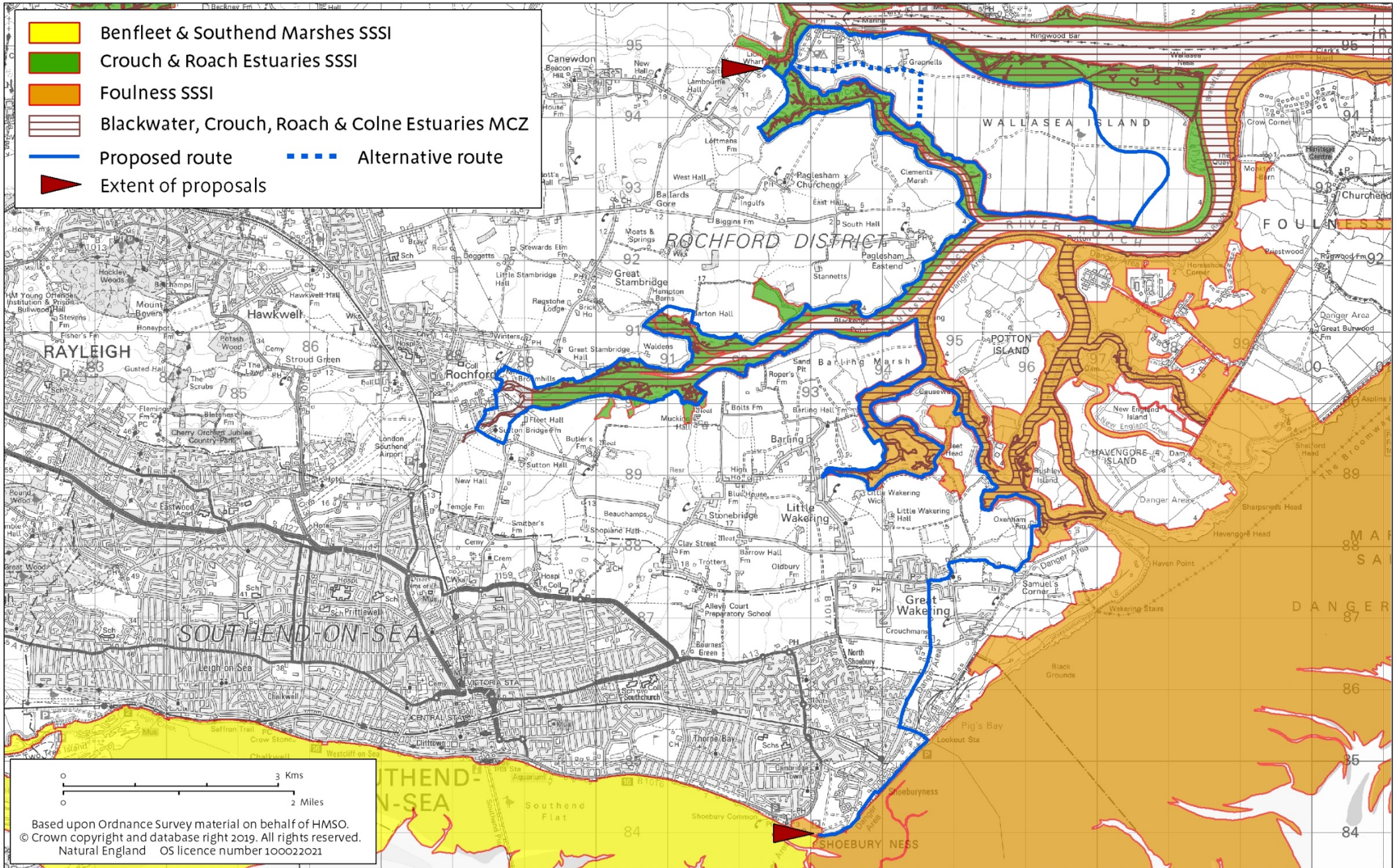
John Torlesse	7 August 2019	Senior Officer with responsibility for protected sites, Area 8
Charles Williams	7 August 2019	Lead Adviser for NCA of the stretch

² Natural England's functions include 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.

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Map 1 - Designations (SSSIs and MCZ)



Annex 1. Index to designated sites and features

The avian and non-avian features of the eight European/international sites (SPAs, SAC and Ramsar sites) and four national sites (SSSIs and MCZ) on this Coast Path stretch are summarised separately in Tables 1 and 2 below. Columns for the European/international sites considered in the HRA are shown with a grey background to make them easily distinguishable from the national sites.

In both tables, SSSI and MCZ features that are not part of any SPA, SAC or Ramsar site features - and therefore have not been considered in the Habitats Regulations Assessment (HRA) for this Coast Path stretch – are shown double underlined and highlighted in red (☑). Those that are SPA, SAC or Ramsar site features are shown without underlining or highlighting (✓). Those that are components or sub-features of SPA, SAC or Ramsar site features are shown single underlined and highlighted in yellow (☑). Both the latter two categories are considered in the HRA for the stretch.

Explanatory Notes for Table 1: avian qualifying features

Where the bird species listed are SPA qualifying features their feature code, latin name, and International English name, as used in SPA Conservation Objectives, are given. Otherwise, shorter and more familiar English vernacular names are used.

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

Benfleet and Southend Marshes assemblage: brent goose, little egret, oystercatcher, avocet, ringed plover, grey plover, knot, sanderling, dunlin, black-tailed godwit, bar-tailed godwit, (whimbrel), (greenshank), redshank, turnstone.

Foulness assemblage: brent goose, shelduck, wigeon, little egret, oystercatcher, avocet, golden plover, lapwing, knot, dunlin, black-tailed godwit, bar-tailed godwit, (whimbrel), curlew, (common sandpiper), (green sandpiper), (greenshank), redshank, black-headed gull.

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

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

Table 1. Avian Qualifying Features

Avian Qualifying Feature	Benfleet & Southend Marshes SPA	Benfleet & Southend Marshes Ramsar	Foulness SPA	Foulness Ramsar site	Crouch & Roach Estuaries SPA	Crouch & Roach Estuaries Ramsar site	Outer Thames Estuary SPA	Benfleet & Southend Marshes SSSI	Foulness SSSI	Crouch & Roach Estuaries SSSI
A132 <i>Recurvirostra avosetta</i> ; Pied avocet (Breeding)			✓						✓	
A137 <i>Charadrius hiaticula</i> ; Ringed plover (Breeding)			✓							
A191 <i>Sterna sandvicensis</i> ; Sandwich tern (Breeding)			✓						✓	
A193 <i>Sterna hirundo</i> ; Common tern (Breeding)			✓				✓		✓	
A195 <i>Sterna albifrons</i> ; Little tern (Breeding)			✓				✓		✓	
A001 <i>Gavia stellata</i> ; Red-throated diver (Non-breeding)							✓			
A046a <i>Branta bernicla bernicla</i> ; Dark-bellied brent goose (Non-breeding)	✓	✓	✓	✓	✓	✓		✓	✓	✓
A082 <i>Circus cyaneus</i> ; Hen harrier (Non-breeding)			✓							
A130 <i>Haematopus ostralegus</i> ; Eurasian oystercatcher (Non-breeding)			✓	✓					✓	
A137 <i>Charadrius hiaticula</i> ; Ringed plover (Non-breeding)	✓							✓		
A141 <i>Pluvialis squatarola</i> ; Grey plover (Non-breeding)	✓	✓	✓	✓				✓	✓	
A143 <i>Calidris canutus</i> ; Red knot (Non-breeding)	✓	✓	✓	✓				✓	✓	
A149 <i>Calidris alpina alpina</i> ; Dunlin (Non-breeding)	✓	✓						✓	✓	✓
A157 <i>Limosa lapponica</i> ; Bar-tailed godwit (Non-breeding)			✓	✓					✓	
A162 <i>Tringa totanus</i> ; Common redshank (Non-breeding)			✓	✓				✓	✓	✓
<i>Tadorna tadorna</i> ; Shelduck (Non-breeding)									✓	✓
<i>Anas clypeata</i> ; Shoveler (Non-breeding)										✓
<i>Numenius arquata</i> ; Curlew (Non-breeding)								✓		
<i>Limosa limosa islandica</i> ; Black-tailed godwit (Non-breeding)										✓
<i>Pluvialis apricaria</i> ; Golden plover (Non-breeding)										✓
<i>Vanellus vanellus</i> ; Lapwing (Non-breeding)										✓
Waterbird assemblages (Non-breeding)	✓	✓	✓	✓	✓	✓				

Explanatory Notes for Table 2: Non-avian qualifying features:

Benfleet and Southend Marshes Ramsar site is not listed in Table 2 because, unlike the other two Ramsar sites, it does not have any non-avian qualifying features.

For Foulness and the Crouch and Roach Estuaries, the SSSI 'vascular plant assemblage' feature is equivalent to the Ramsar site 'wetland plant assemblage' feature. Both are comprised of the same nationally scarce plant species. Most of these species are found in saltmarsh and brackish coastal habitats. The assemblages of the Foulness and the Crouch and Roach Estuaries designated sites are not the same but have several species in common. The notified Schedule 8 plant *Atriplex pedunculata* is a member of the Foulness assemblage.

Similarly, for Foulness and the Crouch and Roach Estuaries, the SSSI 'invertebrate assemblage' feature is equivalent to the Ramsar site 'wetland invertebrate assemblage' feature. Both are comprised of notable species of saltmarsh and other coastal habitats, including nationally scarce, vulnerable or endangered species. But the SSSI assemblage may include some invertebrates that are not in the Ramsar site assemblage. As for the plants, the invertebrate assemblages of the Foulness and Crouch and Roach Estuaries designated sites are not the same but have some species in common.

Table 2. Non-avian Qualifying Features

Non-Avian Qualifying Feature	Essex Estuaries SAC	Foulness Ramsar site	Crouch & Roach Estuaries Ramsar site	Benfleet & Southend Marshes SSSI	Foulness SSSI	Crouch & Roach Estuaries SSSI	Blackwater, Crouch, Roach & Colne MCZ
H1110 Sandbanks which are slightly covered by sea water all the time (Subtidal sandbanks)	✓						
H1130 Estuaries	✓						
H1140 Mudflats and sandflats not covered by seawater at low tide (Intertidal mudflats and sandflats)	✓						
Intertidal mixed sediments							✓
Native oyster (<i>Ostrea edulis</i>)							✓
Native oyster (<i>Ostrea edulis</i>) beds							✓
H1310 <i>Salicornia</i> and other annuals colonising mud and sand (Glasswort and other annuals colonising mud and sand)	✓	✓					
H1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) (Cord-grass swards)	✓	✓					
H1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	✓	✓					
SM13a – <i>Puccinellia maritima</i> saltmarsh, <i>Puccinellia maritima</i> dominant sub-community				✓	✓	✓	
SM14 – <i>Atriplex portulacoides</i> saltmarsh				✓	✓	✓	
H1420 Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>) (Mediterranean saltmarsh scrub)	✓	✓					
SD2 – <i>Honkenya peploides</i> – <i>Cakile maritima</i> strandline community					✓		
Wetland plant assemblages / vascular plant assemblages		✓	✓	✓	✓	✓	
Population of Schedule 8 plant – <i>Atriplex pedunculata</i>					✓		
Wetland invertebrate assemblages / invertebrate assemblages		✓	✓	✓	✓	✓	
Lowland ditch system						✓	
Clacton Cliffs and foreshore							✓

Cover photograph:

Wallasea Island and the River Crouch, 2018

Patrick Welsh, Natural England