

# Assessment of Coastal Access Proposals Between Silecroft, Cumbria and Cleveleys, Lancashire on sites and features of nature conservation concern

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## About this document

This document should be read in conjunction with the published Reports for the Silecroft to Silverdale and Silverdale to Cleveleys stretches and the Habitats Regulations Assessments (HRAs) for the proposals.

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:

[www.gov.uk/government/publications/england-coast-path-from-silecroft-to-silverdale-comment-on-proposals](http://www.gov.uk/government/publications/england-coast-path-from-silecroft-to-silverdale-comment-on-proposals)

[www.gov.uk/government/publications/england-coast-path-from-silverdale-to-cleveleys-comment-on-proposals](http://www.gov.uk/government/publications/england-coast-path-from-silverdale-to-cleveleys-comment-on-proposals)

An HRA is required for European sites (Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites). Four HRAs have been produced:

- Morecambe Bay & Duddon Estuary HRA (assessing the coastal sites only: Morecambe Bay and Duddon Estuary SPA, Morecambe Bay SAC, Duddon Estuary Ramsar site, Morecambe Bay Ramsar site).
- Duddon Mosses HRA (Duddon Mosses SAC)
- Roudsea Wood and Mosses HRA (Roudsea Wood and Mosses SAC)
- Leighton Moss HRA (Leighton Moss SPA / Ramsar site)

The HRAs are published alongside the Coastal Access Reports.

This document, the Nature Conservation Assessment (NCA), covers all other aspects (including Sites of Special Scientific Interest (SSSI), Marine Conservation Zones (MCZ), Limestone Pavement Orders (LPOs) 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.**

The NCA is arranged site by site.

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

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## Introduction

The Coastal Access proposals for Silecroft to Cleveleys interact with a variety of important nature conservation and geological sites.

Seven European sites are affected by our proposals, as well as a variety of nationally designated sites and locally important sites.

The proposed England Coast Path (ECP) passes through 14 Sites of Special Scientific Interest (SSSIs), 4 Limestone Pavement Order (LPO) sites, 3 National Nature Reserves (NNR), several Local Wildlife Sites, a Local Geodiversity Site, and 9 ancient woodland sites.

An additional 2 SSSIs, 1 Marine Conservation Zone (MCZ), 1 NNR and 1 LPO fall within the associated coastal margin.



# Assessment of coastal access proposals on SSSIs

## Assessment of coastal access proposals on Shaw Meadow and Sea Pasture SSSI

Is this site also part of a European site?      **No**

### Current situation

There are existing walked routes through the SSSI which are popular with local people, and the SSSI is open access land. Current statistics from a people counter installed in 2016 indicate that on average 24 people use the open access area daily. This increases to 300-500 during exceptionally high tides or other unexplained circumstances (this occurred twice in the first 12 months), indicating that the majority of local people walk along the beach rather than in the SSSI when not prevented by the tide. The site is grazed by ponies as part of a conservation management regime. There are some signs of trampling damage and poaching (by ponies and people) along the walked lines in wetter areas.

### Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 1: Silecroft beach car park to Green Road station (map SCS 1a).**

The proposed ECP is aligned through unit 2 and adjacent to unit 3 of the SSSI.

The following features may be affected:

- Lowland Dwarf Shrub Heath: H8 *Calluna vulgaris* – *Ulex gallii* heath
- Lowland grassland: MG5 *Cynosurus cristatus*-*Centaurea nigra* grassland / CG10 *Festuca ovina* - *Agrostis capillaries*-*Thymus praecox* grassland mosaic.
- Wetlands (Lowland wetland (flush)): M6 *Carex echinata* – *Sphagnum recurvum (fallax)* / *auriculatum (denticulatum)* mire

These habitats are sensitive to changes in access:

- Increased trampling of vegetation could lead to damage / loss of vegetation and compaction of soils
- Dog faeces could lead to nutrient enrichment
- There could be changes in conservation grazing patterns due to dogs disturbing livestock.

The proposed ECP runs on an existing walked line through the SSSI. This route is currently wet and surface improvements are required.

Our access assessment concluded that there will be a small increase in use on the existing walked routes across Shaw Meadow and Sea Pasture SSSI. The route is already a popular route with local dog walkers. It is expected that promotion of the ECP, improvements to the route and the effective creation of a circular route (from Silecroft car park it will be possible to walk out along the ECP and back along the beach) will lead to a small increase in use in this area. As this area of Cumbria is so isolated, it is not expected that the route will attract large numbers of walkers from further afield, so the main increase is likely to be associated with long-distance walkers, with some increase in numbers of local / day visitors using the new circular route.

The whole of unit 2 of Shaw Meadow and Sea Pasture SSSI, which is already open access land under CRoW, will become coastal margin. Access is likely to follow the present pattern. Walkers currently keep mainly to the path due to roughly vegetated terrain underfoot and livestock presence in winter. It is not expected that there will be an increase in access to the margin in this area.

The line of the trail is popular already, and resident ponies which are used for conservation grazing are habituated to human and canine access. Therefore the small increase in numbers of people using the trail is unlikely to affect the conservation grazing regime.

Infrastructure is required on the line of the ECP, as the current walked route is very wet and some of the vegetation is currently eroded by trampling. This will involve a stone clapper bridge, stone steps, flagstones around kissing gates and waymarker posts with a total area of 18 m<sup>2</sup>. The infrastructure will encourage people to follow the line of the ECP, reduce the existing trampled zone and prevent a wider trampling zone from developing. The habitat in this area is a mosaic of the three features listed above. The infrastructure will not prevent natural processes on the site from occurring, and drainage will not be significantly altered. Habitat connectivity will not be significantly impaired; therefore the infrastructure will not have a significant impact on the SSSI habitats.

## **Conclusion**

There will be a very small (18m<sup>2</sup>) amount of habitat loss in the SSSI due to infrastructure. The infrastructure will be installed on a route which is currently walked and where some of the vegetation is currently eroded by trampling. The infrastructure will help to keep people to one walked line, therefore reducing rather than increasing the area currently affected by trampling / loss of vegetation. There will be negligible change in access in the coastal margin. Therefore the proposal will not have a significant impact on the features of the SSSI.

## **Establishment works**

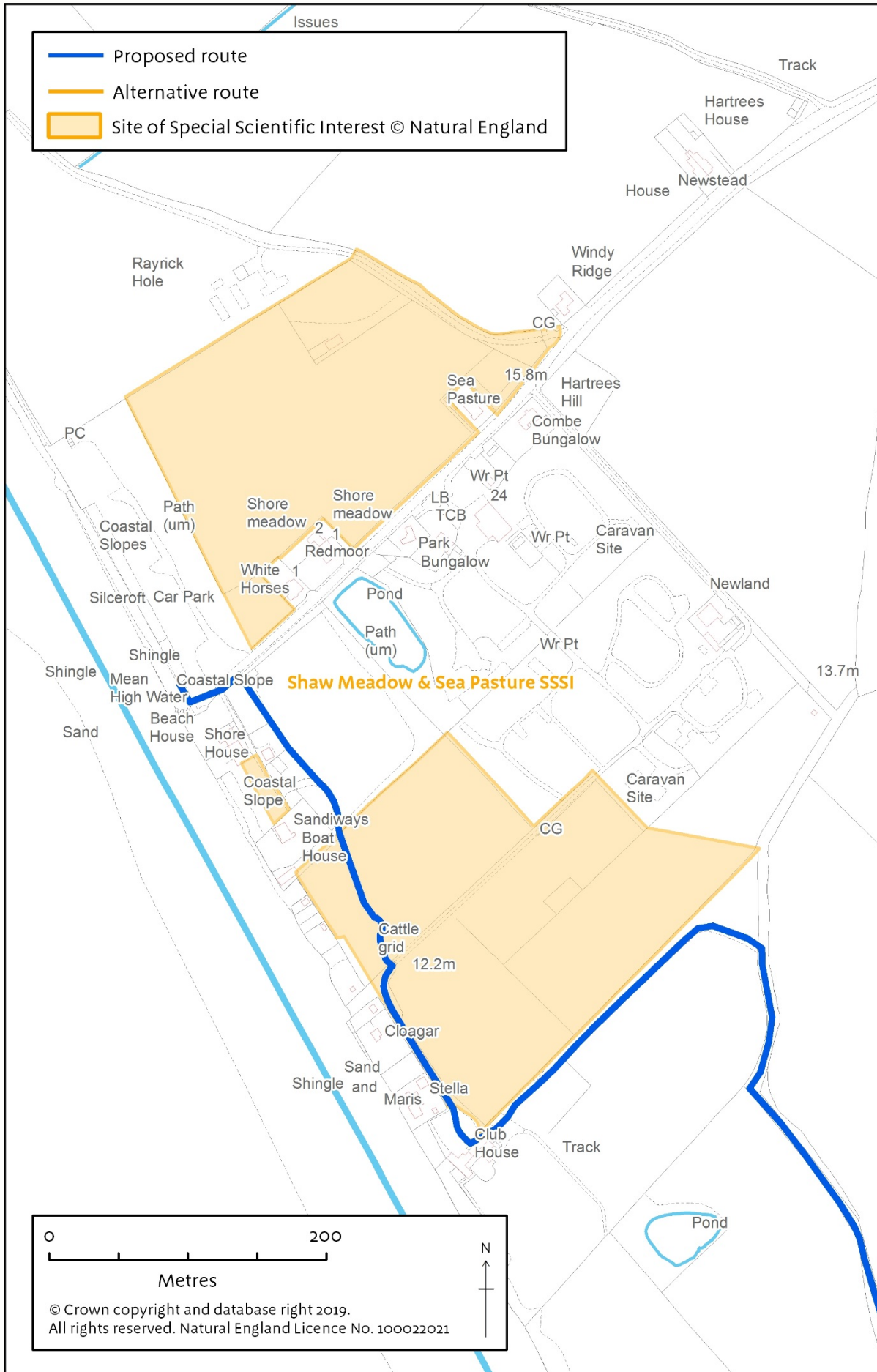
Is SSSI assent needed to implement any specific proposals for establishment works? Yes

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

To prevent damage to rare species close to the proposed route, plant surveys will be undertaken prior to establishment works. Vehicle routes, storage of materials etc. will be designed to avoid the rare species. If necessary, minor changes to the establishment plans will be made to avoid damaging these plants.

Where necessary, Cumbria 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.

**Map showing Shaw Meadow and Sea Pasture SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Duddon Estuary SSSI

Is this site also part of a European site?      **Yes**

There may be interactions between the Coastal Access proposals and the designated features listed below. These features of the SSSI are also features of Duddon Estuary and Morecambe Bay SPA, Morecambe Bay SAC and / or Duddon Estuary Ramsar. An assessment of the impacts of our proposals on these features, and any mitigation required, is undertaken in the HRA published alongside our coastal access proposals.

- Saltmarsh

- Pioneer saltmarsh

- SM6 *Spartina anglica* saltmarsh community

- SM8 Annual *Salicornia* saltmarsh community

- Low-mid marsh

- SM10 Transitional low-marsh vegetation with *Puccinella maritima*, annual *Salicornia* species and *Suaeda maritima*

- SM13a *Puccinellia maritima* saltmarsh community

- SM14 *Halimione portulacoides* saltmarsh community

- Mid-upper marsh

- SM13b, c, d *Puccinellia maritima* saltmarsh community

- SM15 *Juncus maritimus* - *Triglochin maritima* saltmarsh community

- SM16 *Festuca rubra* saltmarsh community

- SM18 *Juncus maritimus* saltmarsh community

- SM19 *Blysmus rufus* saltmarsh community

- SM20 *Eleocharis uniglumis* saltmarsh community

- SM23 *Spergularia marina* - *Puccinellia distans* saltmarsh community

- Driftline

- SM24 *Elymus pycanthus* saltmarsh community

- SM28 *Elymus repens* saltmarsh community

- Transitions

- MG 11 *Festuca rubra* -*Agrostis stolonifera*-*Potentilla anserina* grassland

- MG12 *Festuca arundinacea* grassland

- MG13 *Agrostis stolonifera*-*Alopecurus geniculatus* grassland

- S4 *Phragmites australis* swamp and reedbeds

- S21 *Scirpus maritimus* swamp

- Mudflats and sandflats not covered by water at low tide

- Biotores supporting an abundance of Baltic tellin *Macoma balthica*, ragworm *Hediste diversicolor*, lugworm *Arenicola marina* and other invertebrate bird-prey

- Reefs

- Biotores supporting common mussel *Mytilus edulis* and other invertebrate bird-prey

- Perennial vegetation of stony banks

- SD1 *Rumex crispus* - *Glaucium flavum* shingle community

- Sand dunes

Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria*

SD2 *Honkenya peploides* - *Cakile maritima* strandline community

SD4 *Elymus farctus* foredune community

SD5 *Leymus arenarius* mobile dune community

SD6 *Ammophila arenaria* mobile dune community

Fixed dunes with herbaceous vegetation

SD7 *Ammophila arenaria* - *Festuca rubra* semi-fixed dune community

SD8 *Festuca rubra* - *Galium verum* fixed dune grassland

SD9 *Ammophila arenaria* - *Arrhenatherum elatius* dune grassland

SD10 *Carex arenaria* dune community

SD11 *Carex arenaria* - *Cornicularia aculeata* dune community

SD19 *Phleum arenarium* - *Arenaria serpyllifolia* dune annual community

Dunes with *Salix repens*; Humid dune slacks

SD13 *Sagina nodosa* - *Bryum pseudotriquetrum* dune slack community

SD14 *Salix repens* - *Campylium stellatum* dune slack community

SD15 *Salix repens*-*Calliergon cuspidatum* dune slack community

SD16 *Salix repens*-*Holcus lanatus* dune slack community

SD17 *Potentilla anserina*-*Carex nigra* dune slack community

Atlantic decalcified fixed dunes

H11 *Calluna vulgaris* - *Carex arenaria* heath

- Coastal lagoons
  - Various SM and S communities
- Aggregations of non-breeding birds: pintail, knot, redshank, oystercatcher, ringed plover, curlew, sanderling, dunlin, shelduck, red-breasted merganser.
- Aggregations of non-breeding birds: waterfowl assemblage
- Aggregation of breeding sandwich tern (Annex 1 species)
- Natterjack toad *Epidalea calamita*
- Invertebrate assemblage: Broad Assemblage Type: F11 unshaded early successional mosaic. Specific Assemblage Types F111 bare sand and chalk, F112 open short sward.
- Vascular plant assemblage: Sand Dune / Saltmarsh / Artificial Substrate *Epipactis dunensis*, *Centaurium littorale*, *Corallorhiza trifida*, *Epipactis phyllanthes*, *Equisetum variegatum*, *Limonium humile*, *Pyrola rotundifolia*, *Vulpia membranacea*, *Coicya monensis monensis*

The following feature is on Walney Island and is outside of the project area and not affected by our proposals:

- Coastal geomorphology of England – Barrier Island

There may be interaction between the Coastal Access proposals and the designated features listed below. These features of the SSSI are **NOT** features of any of the European sites, and the impact of the coastal access proposals are considered here.

- **Breeding bird assemblage of sand-dune and saltmarsh:** red-breasted merganser, shelduck, lapwing, ringed plover, snipe, stonechat, sedge warbler, linnet, black-headed gull, common tern, arctic tern, little tern, oystercatcher

Occurring: mid-March to mid-July. Sensitivities: Disturbance can lead to eggs or chicks chilling, trampling of nests, eggs and chicks, or direct predation of nest or young by dogs. There is also a risk of increased predation of eggs and chicks, due to adults being disturbed from the nest thus leaving the nest more vulnerable to predation.

This assemblage can be split into two groups, ground nesting species (which are vulnerable to increased access) and scrub nesting species (which are not as vulnerable).

**1. GROUND NESTING BIRDS:** The ground nesting species (lapwing, oystercatcher, snipe, ringed plover, red breasted merganser, black headed gull, common tern, artic tern, little tern) are particularly sensitive to disturbance by people and dogs. The following areas are used by ground nesting birds:

*All data about breeding birds in the tables below is from the 2016 breeding bird survey [REF.1.]*



**Table 1a. Areas where there is a low risk of impact on ground nesting birds**

<b>Location</b> Cross reference to the Coastal Access Report	<b>Location &amp; species breeding</b> <b>Existing disturbance to breeding birds</b>	<b>Existing recreational use in the areas used by these species</b> <b>Predicted change in levels and patterns of use in the areas used by these species</b>	<b>Risk of impact of proposals on ground nesting birds.</b>
<b>Hodbarrow</b> Report SCS 1: Beach car park, Silecroft to Green Road station (Report maps SCS 1e & 1f)	<b>Hodbarrow Lagoon Island</b> Common tern (38 pairs), arctic tern (1 pair), little tern (48 pairs), sandwich tern (100 pairs). <b>Hodbarrow Lagoon</b> Great Crested Grebe (2 pairs), Great black backed gull (1 pair), herring gull (1 pair), lapwing (3 pairs), oystercatcher (3 pairs), red breasted merganser (1 pair), ringed plover (2 pairs). <b>Hodbarrow Ski Bank</b> Herring gull (10 pairs), Lesser black backed gull (70 pairs) Hodbarrow is an RSPB reserve. Walkers and dogs are not currently disturbing birds breeding on the islands.	A busy public right of way and vehicle track runs seaward of Hodbarrow Lagoon. The ECP in this area is aligned immediately adjacent to a busy public right of way (byway) which is also occasionally used by vehicles. It is expected that there will be negligible change in the numbers of people using this area as a result of the proposals.	<b>Low risk</b> The areas where the birds are breeding are landward of the proposed ECP and do not fall within the project area. Therefore there will be no coastal access rights in the area used by breeding birds. The proposed ECP will not bring people any closer to the areas used by breeding birds. The ECP is aligned seaward of a busy public byway, and the sensitive areas are landward of the public byway. Walkers and dogs are not currently disturbing birds breeding on the islands. We expect a negligible increase in use of the proposed ECP and therefore there will be no impacts on the breeding birds from the proposal.
<b>Foxfield station to Kirkby-in-Furness station</b> Report SCS 2: Green Road station to Jubilee Bridge, Vickerstown, (Report maps SCS 2a & 2b and Direction map SCS 2A)	<b>Angerton Marsh and adjacent fields</b> Lapwing, redshank, oystercatcher and curlew were recorded in 2012, although the survey area included the Duddon Mosses as well as the marsh. The 2016 survey recorded 12 pairs of oystercatcher breeding. The tidal range and lack of access on Angerton Marsh and the coastal fields would appear to make the marsh and fields ideal for breeding waders. <b>Galloper Marsh / Foxfield Marsh</b> There are low levels of breeding birds on these marshes. Existing disturbance is low.	This section has fairly low levels of use by walkers, apart from the area close to Foxfield, and the area close to Kirkby-in-Furness, which are used by local dog walkers. <b>Foxfield Marsh &amp; Galloper Marsh:</b> The proposed ECP will be aligned on a single-track public highway at the edge of the marsh. The road is already used by local walkers; patterns and levels of use are not expected to change in this area. <b>Angerton Marsh &amp; adjacent fields:</b> The proposed ECP in this area is aligned landward of the railway line, and then on a public right of way seaward of the railway from Angerton Hall to Kirkby Pool. We expect to see an increase in use of the right of way between Kirkby Pool and Angerton Hall, however it is unlikely that people will choose to enter the fields in the margin because they are often very wet. Also, improvements to the public right of way will mean that people are more likely to remain on the trail. It is expected that there will be a negligible change in use of the coastal margin. The saltmarshes and intertidal flats are unsuitable for access and we propose that access be excluded under s25A of CROW.	<b>Low Risk</b> It is expected that there will be negligible change in access in the areas where the birds roost and feed, and therefore no increased disturbance in this area as a result of the Coastal Access proposals.
<b>Sandscale Haws National Nature Reserve (NNR)</b> Report SCS 2: Green Road station to Jubilee Bridge,	<b>Sandscale Haws NNR - wet meadow</b> 2 pairs reed bunting, 1 pair shelduck. <b>Sandscale Haws NNR - Red gutter</b> 4 pairs lapwing. <b>Sandscale Haws NNR – Dunes</b>	Sandscale Haws NNR is currently managed by the National Trust as open access land and is popular with locals, visitors and dog walkers throughout the year. The site has car parking and toilets. The vast majority of visitors stick to the beach and area of dunes close to the car park. The intertidal area around Sandscale Haws NNR is very attractive, comprising sandy beaches, and is popular with locals, visitors and dog walkers. The proposed ECP is aligned through sand dunes mainly on an existing walked route. Use of this route is fairly low, so infrastructure improvements,	<b>Low risk</b> It is expected that there will be negligible change in access to the areas where these birds breed in the coastal margin, as a result of the proposals, and therefore disturbance of breeding birds will not increase as a result of the proposals.

Location Cross reference to the Coastal Access Report	Location & species breeding	Existing recreational use in the areas used by these species	Risk of impact of proposals on ground nesting birds.
	Existing disturbance to breeding birds	Predicted change in levels and patterns of use in the areas used by these species	
Vickerstown, (Report maps SCS 2g to 2i)	10+ pairs of shelduck throughout area, 1 pair oystercatcher, 2 pairs lapwing. <b>Sandscale Haws NNR: Lowsy Point:</b> 4 pairs oystercatcher, 1 pair ringed plover.	waymarking and promoting it as the ECP would lead to an increase in use. The dune system of Sandscale Haws is currently managed as open access land and it is not expected that there will be noticeable change in use as a result of the proposals as it is a difficult area to traverse. The intertidal area around Sandscale Haws is already very popular for recreation, including walking and dog walking. The proposed ECP will effectively create an easy and pleasant 4 mile circular walk from the car park returning on the beach. As the beach already has high levels of existing access, the circular route is unlikely to significantly increase access on the beach, and may even reduce it slightly, as more people use the circular route rather than walking both ways along the beach.	



**Table 1b. Areas where there is a risk of impact on ground nesting birds and where mitigation is required to reduce the risk**

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species  Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
<p><b>Haverigg Dunes</b> Report SCS 1: Beach car park, Silecroft to Green Road station.  (Report maps SCS 1a to 1d and Directions maps SCS 1A &amp; 1C)</p>	<p><b>Bullstone Beds</b> Ringed plover (1 pair). <b>Black Dub</b> Ringed plover (3 pairs). <b>Haverigg Bent Hills</b> Ringed plover (1 pair). <b>Kirksanton Haws</b> Lapwing (1 pair).  These birds breed inside the fenced grazing enclosures in the dunes.  The enclosures are grazed all year round to manage the dune grassland habitats.</p>	<p>There is some existing access in this area, with walked lines through the dunes which are used by local dog walkers.  The trail is aligned on an existing walked line; however, access is expected to increase along the line of the trail and in the coastal margin without mitigation.</p>	<p>The proposed ECP is aligned through breeding bird territories and the territories will also fall within the coastal margin. As access is expected to increase in the areas used by breeding birds, disturbance of breeding birds could increase.</p>	<p>It is proposed that access is restricted or excluded in the following areas under section 26 (nature conservation):  - Dogs must be kept on leads on the trail inside enclosures at Haverigg Bent Hills and Black Dub all year round.  - No dogs in the coastal margin year-round in the grazing enclosures at Haverigg Bent Hills and Black Dub.  These restrictions are primarily to reduce the risk of disturbance to conservation grazing. They will also act to reduce disturbance to ground-nesting birds.  Signs will be placed at the entrances to the enclosures to tell people about the restrictions / exclusions.</p>	<p><b>Low risk</b>  The mitigation to prevent changes to the conservation grazing regime will also act to prevent disturbance to breeding birds.  In the event that the restrictions are no longer required for conservation grazing, the need for restrictions to prevent disturbance to breeding birds would have to be assessed.</p>
<p><b>Borwick Rails</b> Report SCS 1: Beach car park, Silecroft to Green Road station  (Report maps SCS 1g &amp; 1h and Directions map SCS 1D)</p>	<p><b>Borwick Rails slag bank</b> has a high density and good variety of breeding waders compared to the rest of Duddon Estuary.  Oystercatcher (5 pairs), linnet (1 pair), ringed plover (6 pairs), lapwing (4 pairs).  Existing disturbance is fairly low.</p>	<p>Borwick Rails is a large slag bank which protrudes into the marsh near Millom Ironworks. It is fenced off and does not readily invite public access, however the occasional local dog walker does visit the site.  The proposed ECP runs on an existing public right of way inland of Borwick Rails, which means that Borwick Rails will fall within the coastal margin. Because the existing PRoW is already very popular with local walkers, there will be a negligible change in access on the line of the ECP.  Access into Borwick Rails is currently discouraged, and could potentially increase if the area became spreading room.</p>	<p>The birds breeding on the slag bank would be disturbed by people walking over the slag bank, and by dogs off lead.  Therefore an increase in access at Borwick Rails would lead to increased disturbance of waterbirds using the site for breeding.</p>	<p>It is proposed that access is excluded from Borwick Rails all year round. Four signs at potential access points will tell people about the exclusion.</p>	<p><b>Low risk</b>  There will be no new access rights in the area used by breeding birds. The combination of access exclusion, existing fence and new signage about the access exclusion means that access in this area is very unlikely to increase as a result of coastal access.</p>

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species  Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
<p><b>Millom Marsh</b></p> <p>Report SCS 1: Beach car park, Silecroft to Green Road station.</p> <p>(Report maps SCS 1h to 1j and Directions map SCS 1C)</p>	<p>Oystercatcher (7 pairs), redshank (1 pair), lapwing (3 pairs).</p>	<p>An existing right of way runs along the embankment at the landward edge of Millom Marsh. The PROW has fairly high levels of access at the Millom end.</p> <p>The trail is aligned on an existing right of way which has fairly high levels of access at the Millom end. It is expected that access along the embankment will increase, particularly at the Green Road end, due to the proposals.</p>	<p>There will be no new access rights on the marsh itself as the area will be covered by a s25A access exclusion.</p> <p>There is the potential for an increase in disturbance to breeding birds due to sky-lining and due to dogs off-lead on the marsh.</p>	<p>In order to reduce the likelihood of dogs off-lead straying onto the marsh, and causing disturbance to breeding birds, the following mitigation will be put in place:</p> <ul style="list-style-type: none"> <li>• Signage at each end of the embankment (at Millom and Green Road), requesting people to keep dogs under effective control, and not to allow dogs to roam onto the marsh.</li> <li>• Signage at points where other paths or tracks join the embankment, requesting people to keep dogs under effective control, and not to allow dogs to roam onto the marsh.</li> </ul> <p>It is not possible to put a dogs on-lead restriction on the embankment, as the ECP will be aligned on a public footpath. Livestock (sheep) are usually present on the saltmarsh however so dogs should already be under close control, in line with national restrictions.</p>	<p><b>Small risk of increased disturbance</b></p> <p>With this mitigation in place, disturbance of these birds will be reduced. However, there is still a small risk of increased disturbance events due to sky-lining as a result of the proposals. It is not expected that this small increase in disturbance will have a significant effect on breeding birds.</p>
<p><b>Kirkby in Furness to Askam-in-Furness</b></p> <p>Report SCS 2: Green Road station to Jubilee Bridge, Vickerstown.</p> <p>(Report maps SCS 2c to 2f and Directions maps SCS 2B &amp; 2C)</p>	<p><b>Askam Pier and Shore (unit 10)</b></p> <p>A single oystercatcher was recorded breeding in the lee of Askam Pier. <b>Dunnerholme Golf Course:</b> ringed plover (possible). <b>Dunnerholme Point:</b> 1 pair rock pipit (1 of only 2 confirmed breeding site in Duddon / Morecambe Bay), 1 pair red breasted merganser recorded off Dunnerholme Point, suspected to be breeding nearby. <b>Southergate Marsh</b></p> <p>4 pairs of oystercatcher. Coastal fields have potential for breeding lapwing, oystercatcher and curlew.</p> <p>The potential for full marsh zonation in this area is restricted by the railway. This limits the potential habitat for breeding waders and makes any attempt far more susceptible to being washed out from large tides.</p>	<p>There are various public rights of way and other walked routes along the shore between Kirkby-in-Furness and Askam-in-Furness. The routes are very popular in these locations, with slightly less use in between.</p> <p>The ECP is aligned on existing walked routes and Public Rights of Way seaward of the railway line.</p> <p>Between Dunnerholme and Askam-in-Furness, and on Dunnerholme Point, it is expected that there will be negligible change in access as a result of the proposals, both on the line of the trail and in the coastal margin.</p> <p>In between Southergate Crossing and Dunnerholme, the trail will be aligned on an existing right of way which is used by local dog walkers. We expect to see a small increase in use along the trail.</p>	<p>There is likely to be a small increase in use on a public right of way between Southergate Crossing and Dunnerholme. The public right of way is aligned on an area of grazing marsh which could be used by breeding birds.</p>	<p>Mitigation required on the Public Right of Way between Southergate Crossing and Dunnerholme.</p> <p>It is not possible to put a 'dogs on leads to line of the trail' restriction on this section because it is a public right of way. Therefore it is proposed that signs will be placed at access points to the trail, asking people to keep dogs under control in order to prevent disturbance to birds.</p>	<p><b>Low risk</b></p> <p>This route is already walked and promoted locally; any small increase in disturbance to breeding birds as a result of our proposals will not have a significant impact.</p>

## Conclusion

With the mitigation described in place, the proposals will not have a significant impact on breeding ground nesting birds.

## 2. THICK VEGETATION AND SCRUB NESTING BIRDS

Birds that nest in thick vegetation and scrub are less susceptible to disturbance (stonechat, linnet, sedge warbler, reed bunting, grasshopper warbler, wheatear, shelduck). Any disruption of nesting, linked to public access, is most likely to be caused by dogs off leads.

In some places the route of the ECP goes through the breeding territories of these species. Aligning the ECP through the territories won't, in itself, cause a loss of habitat. The habitat remains available for feeding and foraging. Passerines such as stonechats and pipits will continue to forage in these areas. The narrow path will become unavailable as a location for nest sites, but the size of this in comparison to the available habitat is minimal. The alignment is unlikely to cause a decline in the diversity of species in the location which will ensure that the feature will maintain its SSSI score necessary for designation. This is particularly true for sites where there is existing unofficial access creating a network of paths. The alignment and way-marking of a single route along with the new restrictions may be beneficial by reducing current patterns of access and so adding to available habitat.

## Establishment works

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

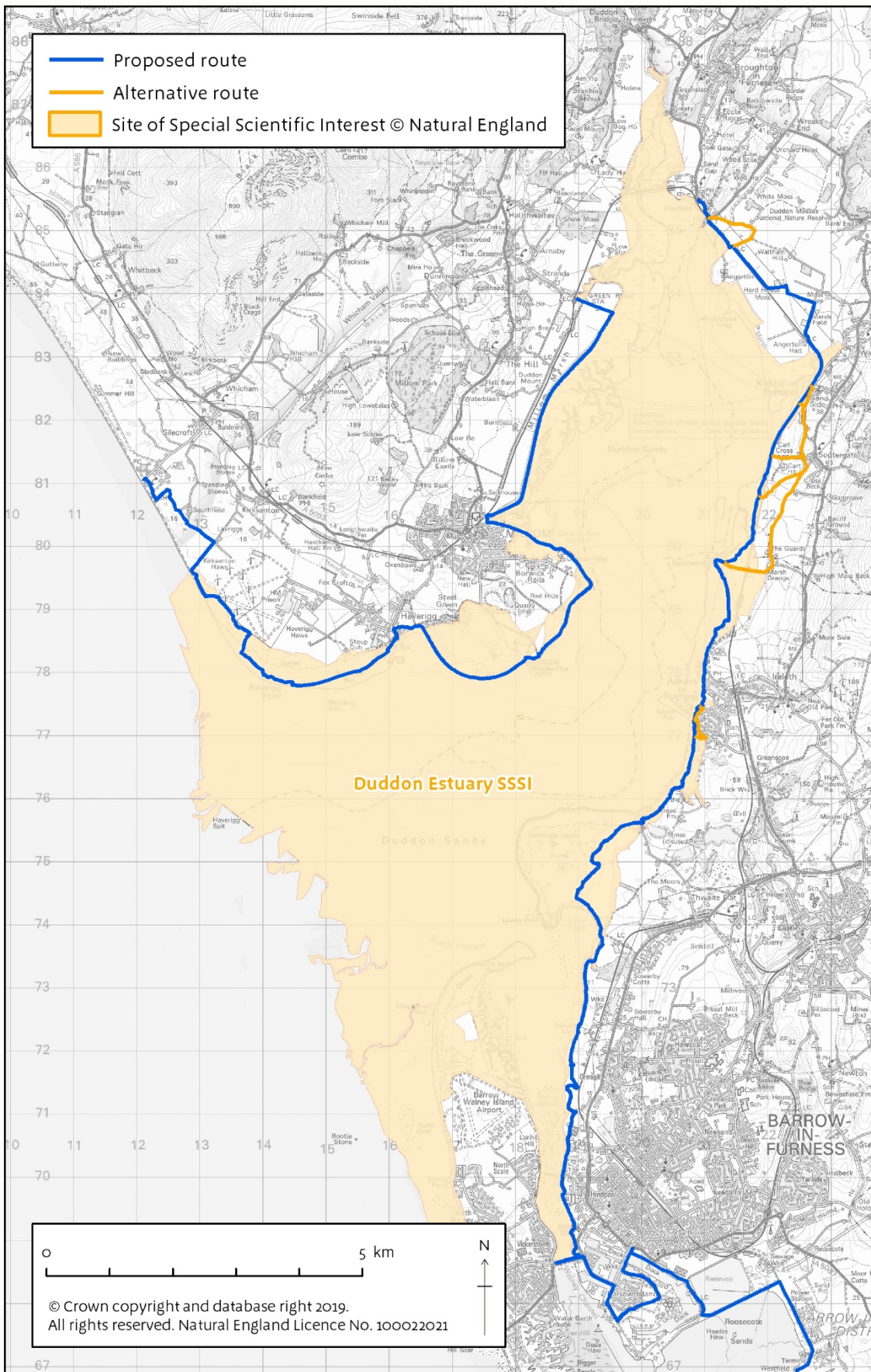
If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

- Works in areas where birds breed should take place outside of the breeding season.
- Works close to areas where birds roost should not take place for 2 hours either side of high tide.
- For works on saltmarshes and sand dunes, access routes, storage of materials and types of vehicles used must be agreed with NE, in order to reduce the damage to the habitat.
- Reasonable avoidance measures will be used to avoid impacts to natterjack toad.
- Vehicles and machinery will be refuelled off site

Where necessary, Cumbria 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.



**Map showing Duddon Estuary SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Duddon Mosses SSSI

Is this site also part of a European site? **Yes**

There may be interactions between the Coastal Access proposals and the designated features listed below. These features of the SSSI are also features of Duddon Mosses SAC. An assessment of the impacts of our proposals on these features, and any mitigation required, is undertaken in the Duddon Mosses HRA, published alongside our coastal access proposals.

- Lowland raised bog comprising mire expanse and bog
  - Mire expanse
    - M2 *S. cuspidatum/S. recurvum* bog pool community
    - M15 *Scirpus cespitosus-Erica tetralix* wet heath
    - M18 *Erica tetralix-Sphagnum papillosum* raised and blanket mire
  - Lagg
    - M4 *Carex rostrata-Sphagnum recurvum* mire
    - M6 *Carex echinata-Sphagnum recurvum/auriculatum* mire
    - M23 *Juncus effusus/acutiflorus-Galium palustre* rush-pasture
    - M25 *Molinia caerulea-potentilla erecta* mire
    - M27 *Filipendula ulmaria-Angelica sylvestris* mire
    - M3 - *Eriophorum angustifolium* bog pool community
    - S4 *Phragmites australis* swamp & reedbeds
    - S27 *Carex rostrata-Potentilla palustris* fen W5 *Alnus glutinosa – Carex paniculata* woodland
    - W6 *Alnus glutinosa – Urtica dioica* woodland
- Soligenous mire / fen
  - M6d *Carex echinata-Sphagnum recurvum/auriculatum* mire
  - M23 *Juncus effusus/acutiflorus-Galium palustre* rush-pasture

There may be interaction between the Coastal Access proposals and the designated features listed below. These features of the SSSI are **NOT** features of any of the European sites, and the impact of the coastal access proposals are considered here.

- Invertebrate Assemblage (Broad Assemblage Type: W31 permanent wet mire. Specific Assemblage Types W311 open water in acid mire W312 acid mire.)

Some invertebrate species are sensitive to trampling.

The impact of our proposals on the habitats on which this assemblage depends are outlined in the Duddon Mosses HRA. We concluded that there will not be a significant increase in trampling of bog / mire habitat as a result of the proposals. Therefore the species in this assemblage will not be affected by the proposals.

## Establishment works

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

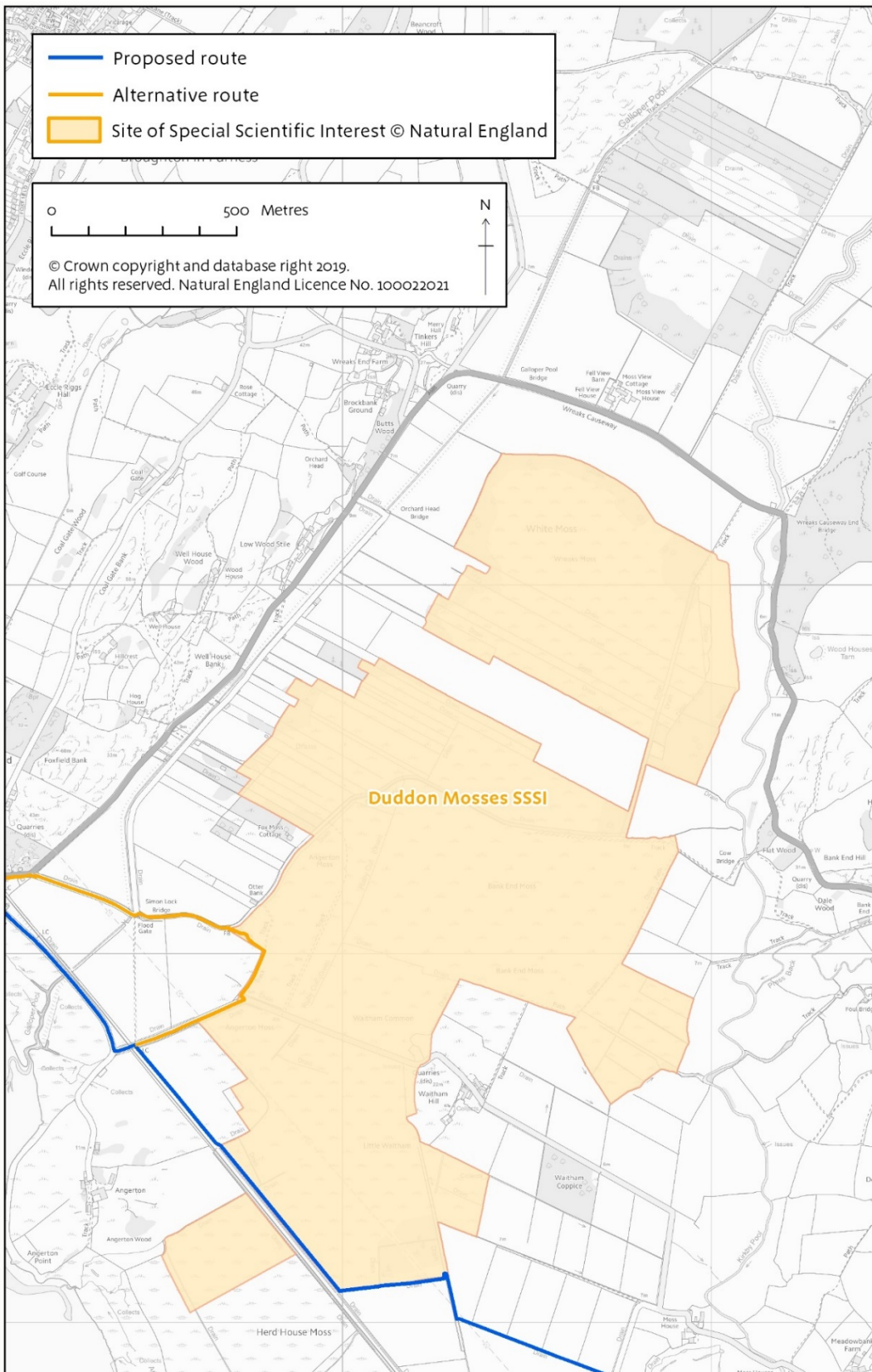
If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

- Stone flags and other materials will be transported to site along the route of the ECP using low ground-pressure vehicles and vehicle movements will be minimised.
- Materials will be stored off site.



Where necessary, Cumbria 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.

### Map showing Duddon Mosses SSSI and proposed route of the ECP



# Assessment of coastal access proposals on South Walney & Piel Channel Flats SSSI

Is this site also part of a European site? **Yes**

South Walney & Piel Channel Flats SSSI: The trail is aligned within unit 10 and is adjacent to units 6, 7 & 9. Units 1 - 9 & 11 are wholly within the coastal margin.

There may be interactions between the Coastal Access proposals and the designated features listed below. These features of the SSSI are also features of Duddon Estuary and Morecambe Bay SPA, Morecambe Bay SAC and / or Duddon Estuary Ramsar. An assessment of the impacts of our proposals on these features, and any mitigation required, is undertaken in the HRA published alongside our coastal access proposals.

- Saltmarsh
  - SM6 *Spartina anglica* saltmarsh community
  - SM8 Annual *Salicornia* saltmarsh community
  - SM10 Transitional low-marsh vegetation with *Puccinella maritima*, annual *Salicornia* species and *Suaeda maritima*
  - SM13 *Puccinellia maritima* saltmarsh community
  - SM14 *Halimione portulacoides* saltmarsh community
  - SM16 *Festuca rubra* saltmarsh community
  - SM28 *Elymus repens* saltmarsh community
- Mud and sandflats not covered by seawater at low tide
  - Biotopes supporting an abundance of Baltic tellin *Macoma balthica*, ragworm *Hediste diversicolor*, lugworm *Arenicola marina* and other invertebrate bird-prey; Eelgrass *Zostera* beds
- Reefs
  - Inshore sublittoral rock
  - Honeycombe worm *Sabellaria alveolata* reef; Nationally scarce assemblage of cushion sponges, hydroids and sea squirts; Biotopes supporting common mussel *Mytilus edulis* and other invertebrate bird-prey
- Sandbanks which are slightly covered by water all the time
  - SD1 - *Rumex crispus* - *Glaucium flavum* shingle community
  - Brittlestar *Ophiothrix fragilis* beds; Eelgrass *Zostera* beds SD1
- Perennial vegetation of stony banks
  - SD1 *Rumex crispus* - *Glaucium flavum* shingle community
- Sand dunes
  - Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria*
  - SD4 *Elymus farctus* foredune community
  - SD6 *Ammophila arenaria* mobile dune community
  - Fixed dunes with herbaceous vegetation
  - SD7 *Ammophila arenaria* - *Festuca rubra* semi-fixed dune community
  - SD8 *Festuca rubra* - *Galium verum* fixed dune grassland
  - SD10 *Carex arenaria* dune community
- Coastal lagoons
  - Various SM and S communities:  
SM1, SM6, SM8, SM10, SM13a, SM14, SM16a, SM28
- Aggregations of breeding bird (Annex 1): sandwich tern
- Aggregation of breeding birds, lesser black-backed gull, herring gull, eider, arctic tern
- Aggregations of non-breeding birds: redshank, oystercatcher, knot, lesser black-backed gull, herring gull, pink-footed goose, pintail, bar-tailed godwit, turnstone, ringed plover, cormorant, shelduck, eider, grey plover, curlew, dunlin.

- Aggregations of non-breeding birds: waterfowl assemblage > 20,000
- Sand dune invertebrate assemblage Invertebrate assemblage: Broad Assemblage Type: F11 unshaded early successional mosaic. Specific Assemblage Types F111 bare sand and chalk, F112 open short sward
- Vascular plant assemblage: Shingle, *Fumaria purpurea*, *Limonium humile*, *Mertensia maritime*, *Vulpia fasciculata*

The following feature is on Walney Island and is outside of the project area and not affected by our proposals:

- Coastal geomorphology of England – Barrier Island

The feature *Aggregation of breeding birds, lesser black-backed gull, herring gull, eider, arctic tern* is considered in the HRA however breeding eider is not a feature of the SPA breeding birds assemblage. Eider breed at South Walney (which is outside the project area and therefore not affected by the proposals) and Foulney Island. The impact of our proposals on breeding eider are considered below.

*All data about breeding birds in the table below is from the 2016 breeding bird survey [REF.1].*



**Table 2. Areas where there is a risk of impact on breeding eider**

Location / Cross reference to the Coastal Access Report	Location & species breeding	Existing recreational use in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on breeding eider.
	Existing disturbance to breeding birds	Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species			
<p><b>Foulney Island</b> Report SCS 3: Jubilee Bridge, Vickerstown, to Newbiggin, (Report map SCS 3e Direction maps SCS 3B to 3F)</p>	<p>Foulney Island is a shingle island which is joined to the mainland by a causeway.</p> <p>There is a substantial eider colony: in 2015 38 pairs were recorded, producing 130+ chicks with 72 successfully fledging.</p> <p>Access is managed to reduce the risk of disturbance by walkers and dogs.</p>	<p>Cumbria Wildlife Trust employ a seasonal on-site warden to manage Foulney Island. They currently allow visitors without dogs on marked routes only during the summer, to protect the nesting birds.</p> <p>The proposed ECP follows the coast at Rampside and does not go onto Foulney Island. This means that Foulney Island and the causeway fall into the coastal margin. Access would potentially increase if the area became spreading room.</p>	<p>Access on Foulney Island is currently managed and there are areas in summer where access is excluded.</p> <p>Any relaxation of this restriction would increase the likelihood of the birds being disturbed, and of breeding failures.</p>	<p>It is proposed that access is restricted or excluded in the following areas under s26 (nature conservation):</p> <ul style="list-style-type: none"> <li>- Shingle and rocky skears around Foulney embankment and Foulney Island. No public access all year, to prevent disturbance to roosting and breeding birds.</li> <li>- Foulney embankment and Foulney Island. No public access 1st April to 15th August each year, to prevent disturbance to breeding birds.</li> <li>- Foulney embankment and Foulney Island. Dogs on leads 16th August to 31st March each year, to prevent disturbance to roosting birds.</li> </ul>	<p><b>Low risk</b></p> <p>These access restrictions will mirror the current situation, allowing Cumbria Wildlife Trust to continue to manage the reserve for breeding shingle nesting birds.</p> <p>Therefore there will be no additional disturbance to this feature as a result of the proposals.</p>

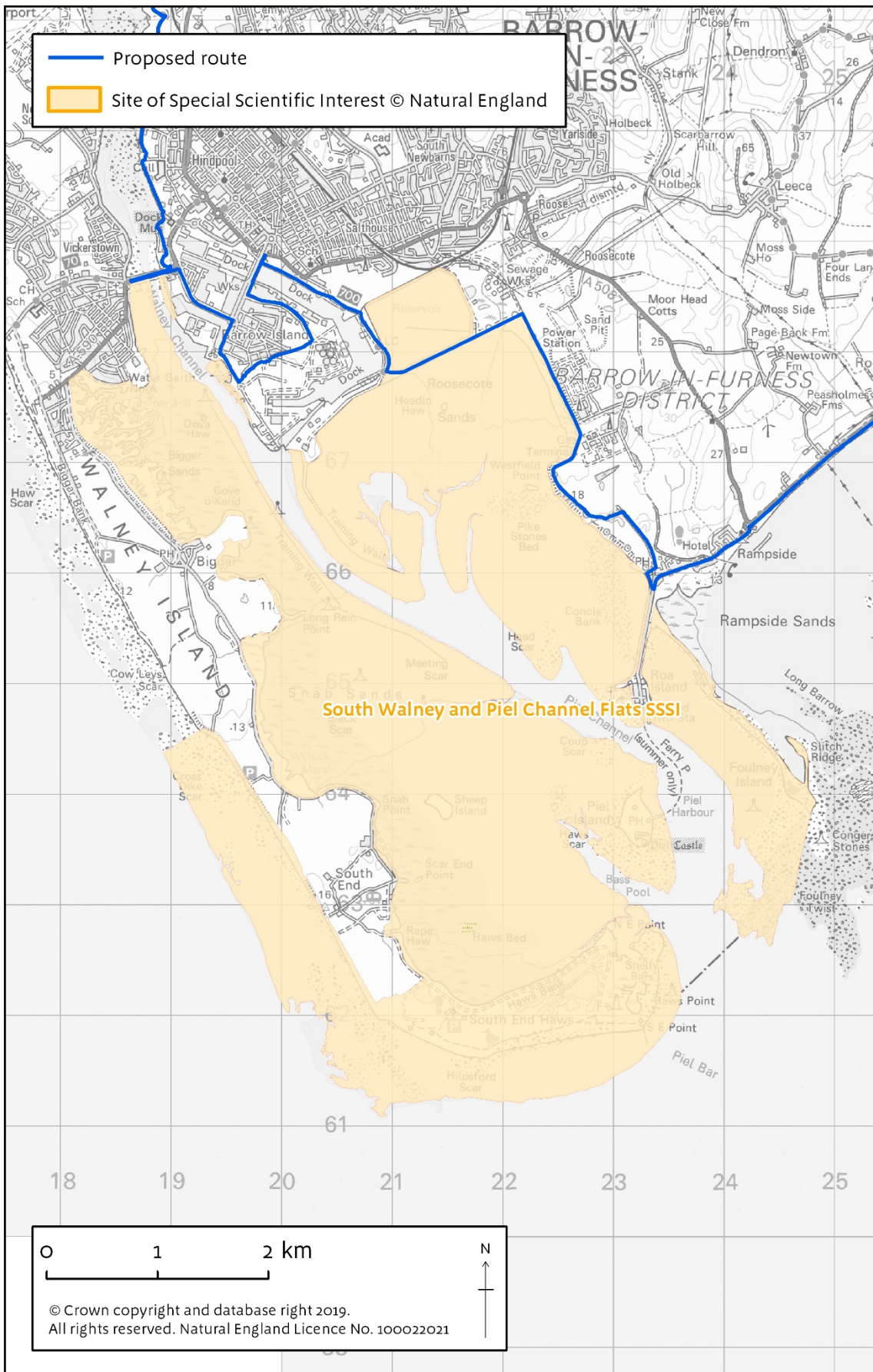
## Establishment works

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

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Cumbria 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.

**Map showing South Walney & Piel Channel Flats SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Morecambe Bay SSSI

Is this site also part of a European site? **Yes**

There may be interactions between the Coastal Access proposals and the designated features listed below. These features of the SSSI are also features of Duddon Estuary and Morecambe Bay SPA, Morecambe Bay SAC and / or Morecambe Bay Ramsar. An assessment of the impacts of our proposals on these features, and any mitigation required, is undertaken in the HRA published alongside our coastal access proposals.

- Saltmarsh
  - Pioneer saltmarsh
    - SM6 *Spartina anglica* saltmarsh community
    - SM8 Annual *Salicornia* saltmarsh community
  - Low-mid marsh
    - SM10 Transitional low-marsh vegetation with *Puccinella maritima*, annual *Salicornia* species and *Suaeda maritima*
    - SM11 *Aster tripolium* var. *discoideus* saltmarsh community
    - SM12 Rayed Aster *Aster tripolium* on saltmarshes
    - SM13a *Puccinellia maritima* saltmarsh community
    - SM14 *Halimione portulacoides* saltmarsh community
  - Mid-upper marsh
    - SM13b, c, d, f *Puccinellia maritima* saltmarsh community
    - SM15 *Juncus maritimus* - *Triglochin maritima* saltmarsh community
    - SM16 *Festuca rubra* saltmarsh community
    - SM18 *Juncus maritimus* saltmarsh community
  - Driftline
    - SM24 *Elymus pycanthus* saltmarsh community
    - SM28 *Elymus repens* saltmarsh community
  - Transition
    - MG 11 *Festuca rubra* - *Agrostis stolonifera* - *Potentilla anserina* grassland
    - S4 *Phragmites australis* swamp and reedbeds
- Perennial vegetation of stony banks
  - SD1 *Rumex crispus* - *Glaucium flavum* shingle community
- Mud and sandflats not covered by seawater at low tide
  - Biotopes supporting an abundance of Baltic tellin *Macoma balthica*, ragworm *Hediste diversicolor*, lugworm *Arenicola marina* and other invertebrate bird-prey; Eelgrass *Zostera* beds
- Reefs
  - Honeycomb worm *Sabellaria alveolata* reefs; Piddock *Barnea candida* colonies; Biotopes supporting common mussel *Mytilus edulis* and other invertebrate bird-prey
- Aggregations of non-breeding birds (pink-footed goose, shelduck, pintail, oystercatcher, grey plover, knot, dunlin, bar-tailed godwit, curlew, redshank, turnstone, ringed plover, sanderling, eider, goldeneye, red-breasted merganser)
- Aggregations of non-breeding birds: waterfowl assemblage

There may be interaction between the Coastal Access proposals and the designated features listed below. These features of the SSSI are **NOT** features of any of the European sites, and the impact of the coastal access proposals are considered here.

- Saltmarsh invertebrate assemblage (Broad Assemblage Type: W53: saltmarsh estuary and mudflats Specific Assemblage Types W531 saltmarsh and transition brackish marsh)  
Sensitivities: Trampling.

The impact of our proposals on saltmarsh are outlined in the HRA. We concluded that there will not be a significant increase in trampling of saltmarsh habitat as a result of the proposals. Therefore the species in this assemblage will not be affected by the proposals.

- Saltmarsh and sand dune vascular plant assemblage (*Adiantum capillus-veneris*, *Fumaria purpurea*, *Limonium humile*, *Sorbus lancastriensis*, *Sesleria caerulea*, *Limonium britannicum subsp celticum*)  
Sensitivities: Trampling, nutrient enrichment by dogs, changes to grazing management due to dogs disturbing livestock.

The impact of our proposals on saltmarsh are outlined in the HRA. We concluded that there will not be a significant increase in trampling of saltmarsh habitat as a result of the proposals. Therefore the species in this assemblage will not be affected by the proposals.

- Breeding bird assemblage: shelduck, oystercatcher, ringed plover, lapwing, dunlin, snipe, curlew, black-headed gull, common tern, wheatear, sedge warbler, linnet, reed bunting, redshank.  
Occurring: mid-March to mid-July. Sensitivities: Disturbance can lead to eggs or chicks chilling, trampling of nests, eggs and chicks, or direct predation of nest or young by dogs. There is also a risk of increased predation of eggs and chicks, due to adults being disturbed from the nest, thus leaving the nest more vulnerable to predation.

This assemblage can be split into two groups, ground nesting species (which are vulnerable to increased access) and scrub nesting species (which are not as vulnerable).

**1. GROUND NESTING BIRDS:** The ground nesting species (oystercatcher, ringed plover, lapwing, dunlin, snipe, curlew, black-headed gull, common tern, redshank.) are particularly sensitive to disturbance by people and dogs. The following areas in Morecambe Bay SSSI are used by ground nesting birds:

*All data about breeding birds in the table below is from the 2016 breeding bird survey [REF.1].*



**Table 3a. Areas where there is a low risk of impact on ground nesting birds**

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species	Risk of impact of proposals on ground nesting birds.
		Predicted change in levels and patterns of use in the areas used by these species	
<p><b>Rampside to Ulverston</b></p> <p>Report SCS 3: Jubilee Bridge, Vickerstown, to Newbiggin. (Report maps SCS 3e to 3h) and</p> <p>Report SCS 4: Newbiggin to Greenodd footbridge. (Report maps SCS 4a to 4f and Direction maps SCS 4A &amp; 4B and SCS 4E)</p>	<p>The majority of this subsection has low numbers of breeding birds, due to lack of suitable habitat, and existing recreational disturbance.</p>	<p>This subsection is popular with local dog walkers in particular and also day-trip visitors. There are informal laybys scattered along the coast road and use of the foreshore for recreation is concentrated in these areas. Visitors are attracted by the wide expanses of sand exposed at low tide and often walk large distances from the shore. Horse riders use the intertidal along this whole subsection.</p> <p>The settlements of Aldingham, Bardsea and Canal Foot are the most popular locations for dog walkers.</p> <p>The former Cumbria Coastal Way followed the coast road and other publicly accessible routes linking up Ulverston and a series of smaller settlements along this subsection. Although the Cumbria Coastal Way is no longer promoted or legally accessible in its entirety, it is marked on older OS maps, there are still some signposts on the ground and the route is available online.</p> <p>The proposed ECP generally follows the route of the former Cumbria Coastal Way in this subsection, but includes several new sections of path at Leonard Scar (south of Newbiggin), Moat Farm, Aldingham, Baycliff and on the disused railway line at Ulverston.</p> <p>Trail: There will be a small increase in use on existing walked sections and a larger increase where new sections of path are proposed.</p> <p>Any increase in use is likely to be from day walkers or long-distance walkers as the area is already well known among local dog walkers.</p> <p>In the areas with new sections of path there is existing access along the foreshore (where the former Cumbria Coastal Way was aligned). The new access would be in fields. It is expected that there will be a small shift in walkers from the shore to these new sections, although the majority of existing users are dog-walkers and will prefer to remain on the shore for recreational purposes.</p> <p>Coastal margin: There is long established use of the extensive sand flats for recreation, including walking, horse riding and dog walking in addition to other pursuits such as fishing etc. The proposals will not create any new opportunities for recreation. There is no reason to suppose that the proposals will alter established use and practice. Neither do we expect to see a change to the current pattern of use, with access concentrated closer to the areas of parking.</p>	<p><b>Low risk</b></p> <p>This area is already well known among local dog-walkers. Our access assessment concluded that there will be a negligible increase in use for more remote sections of the trail, with a small increase in areas with parking laybys. The laybys are already well used and increase in use will be limited by parking availability. In some places the new ECP will take people onto farmland, away from the existing routes on the foreshore.</p> <p>Therefore the risk of increased disturbance to breeding birds is low.</p>
<p><b>Plumpton Hall to Greenodd</b></p> <p>Report SCS 4: Newbiggin to Greenodd footbridge (Report maps SCS 4g to 4j and Direction maps SCS 4C &amp; 4D and SCS 4F &amp; 4G).</p>	<p><b>Ashes Marsh</b> 1 pair oystercatcher, 1 pair shelduck.</p> <p>An eider crèche recorded near levens viaduct (likely bred on Chapel Island).</p>	<p>Walkers from Canal Foot rarely venture past the railway underpass at Plumpton. Although a Public Right of Way does continue past Tridley Point, this becomes difficult to follow on the ground.</p> <p>There is no existing public right of access for at least half of this subsection, between the end of the PRow just north of Tridley Point and the estuary-side car park near Greenodd. From the parking area to Greenodd footbridge there is a narrow but popular path along the side of the estuary.</p> <p>New rights of access are proposed in this subsection, from Tridley Point to Greenodd rest area.</p> <p>Trail: There is likely to be a large increase in access in the majority of this sub-section. The proposals represent a significant change to the existing access provision in this area. However, the lack of circular route options means that this is unlikely to become a local dog walking route, but rather a longer distance walk connecting Canal Foot and Ulverston to Greenodd.</p> <p>Coastal margin: Most of the proposed coastal margin is not suitable for access, being intertidal saltmarshes and flats, and access would be excluded under s25A.</p>	<p><b>Low risk</b></p> <p>A combination of s25A access exclusions on the marshes, route alignment and mitigation for roosting birds (fencing seaward of the trail) means that access to Ashes Marsh and the other marshes in this subsection is not expected to increase as a result of the proposals.</p>

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species	Risk of impact of proposals on ground nesting birds.
		Predicted change in levels and patterns of use in the areas used by these species	
<b>Greenodd to Cark</b> Report SCS 5: Greenodd footbridge to Kents Bank. (Report maps SCS 5a to 5f and Direction maps SCS 5A, 5G to 5J and 5L to 5O).	One pair of Oystercatchers was confirmed as breeding on Greenodd Marsh in 2016, this was the only confirmed breeding wader record for the whole of the upper Leven marshes.	There is little existing access between Greenodd and Cark.	<b>Low risk</b> Access to most of the marshes in this subsection will be excluded under S25a or S26 and for much of this subsection the ECP will be separated from the marshes by fencing, woodland, embankments or cliffs.
		The ECP is aligned through woodland, on top of cliffs, on public roads and estate tracks for most of this section. There is likely to be a large increase in access to the line of the trail.  Access to the proposed coastal margin is expected to be low, because the ECP will be separated from the marshes by fencing, woodland, embankments or cliffs.	
<b>Sandgate Marsh</b> Report SCS 5: Greenodd footbridge to Kents Bank. (Report maps SCS 5e to 5g and Direction maps SCS 5B and 5J).	The saltmarsh zonation is restricted by sea defences making high breeding populations on the unit unlikely.	There are popular existing walked routes along the coast on this subsection.	<b>Low risk</b> There may be a small increase in use of the ECP, however dogs will have to be on leads. It is not expected that there will be a significant increase in the number of people or dogs entering Sandgate Marsh, and the marsh is not particularly suitable for breeding birds.
		From Cark to Gully Nab the proposed ECP will be aligned on existing walked lines and public rights of way on a raised farm track at the back of the marsh. From Gully Nab the proposed ECP will be aligned on top of a flood defence embankment.  <b>Trail:</b> This area is already popular with walkers and promotion of the existing route as a national trail could lead to a small increase in use in an already well used area with limited parking. Dogs will be required to be on leads on the trail, to prevent disturbance to livestock (under s24, land management). <b>Coastal Margin:</b> There is unlikely to be a significant increase in people accessing the proposed coastal margin as a result of our proposals.	
<b>Kents Bank to Grange-over-Sands station</b> Report SCS 6: Kents Bank to Arnside. (Report maps SCS 6a and 6b and Directions Map SCS 6B).	Due to the height and frequent inundation of the marshes this area is not likely to hold any significant breeding bird interest.	Kent's Bank railway station is connected to Grange-over-Sands railway station by pavements, public rights of way and the promenade. It is a busy area, popular with tourists and day trippers.	<b>Low risk</b> There will be no new access rights created for most of this area as the marshes are unsuitable for access and access will be restricted under s25A.  It is expected that there will be negligible change in access to the margin as a result of the proposals.
		The proposed ECP is aligned on existing routes, landward of the railway line between Kent's Bank and Grange-over-Sands, and on the Promenade at Grange-over-Sands.  <b>Trail:</b> It is unlikely that there will be an increase in access levels from Kents Bank to Grange-over-Sands station as the proposed trail is on existing pavements, public rights of way and the busy promenade.  <b>Coastal margin:</b> Access to most of the coastal margin will be excluded under a proposed s25A direction. It is unlikely that there will be a change in access to the margin as a result of the proposals. Where the ECP is aligned landward of the railway line it will be difficult to access the margin. Where it is aligned on the promenade, we expect existing patterns and levels of use in the proposed coastal margin to remain the same.	
<b>River Keer to Wild Duck Hall</b> Report SDC1 – Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands. (Report maps SDC 1e, SDC 1f and SDC 1g)	There are low numbers of breeding birds in this subsection; this is likely to be due to existing levels of recreational disturbance.	From the River Keer to Wild Duck Hall the existing Lancashire Coastal Way is aligned on public highways, public rights of way and on other walked routes towards the landward edge of the saltmarsh. This section is reasonably well used; however, it can be difficult to cross the saltmarsh creeks in wet conditions, especially around Bay View Holiday Park. This factor currently limits the use of the proposed route.  This saltmarsh and some of the intertidal flats in this section have open access rights under s15 of CRoW.	<b>Low risk</b> The proposed ECP in this area is aligned on public rights of way and / or follows the existing Lancashire Coastal Way.  There are low numbers of breeding birds in this subsection, likely to be due to existing levels of recreational disturbance.  The saltmarsh along this section of the coast is an established and regularly used area for recreation. The proposed path improvements will create a single well-defined route and will focus use on the marked trail. For a 300m section, the ECP will take walkers off the saltmarsh and into fields.
		From the River Keer, the proposed ECP will follow a single track public highway before joining the route of the existing Lancashire Coastal Way at the back edge of the marsh, to Wild Duck Hall. A short (300m) section of new path is aligned in the fields, just south of Marsh House Farm. This part of the alignment of the ECP departs from the line of the Lancashire Coastal Way which is on the marsh.  <b>Trail:</b> The existing Lancashire Coastal Way along this section of coast is sometimes difficult to walk due to surface flooding, particularly from Marsh Farm, around Bay View Holiday Park to Wild Duck Hall.	

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species	Risk of impact of proposals on ground nesting birds.
		Predicted change in levels and patterns of use in the areas used by these species	
		<p>We will install sleeper bridges over the wetter areas and creeks / channels, making this a much easier path to walk on. Improving this section of path over the saltmarsh, plus the proximity of car parking and cafés at Wild Duck Hall and Red Bank Farm, and the fact that circular walks are possible utilizing the proposed ECP, the Lancaster Canal path and other footpaths in the area means that this section will see an increase in use.</p> <p><b>Coastal Margin:</b> Walkers will be more likely to stick to the path as it will be easier to walk on than the surrounding marsh, particularly in places where the existing path crosses creeks and is prone to becoming waterlogged. Therefore we do not expect use of the coastal margin by walkers to increase.</p>	Any changes in use of the trail are unlikely to make a significant positive or negative difference to the condition of the salt marsh for breeding birds.
<b>Bolton-le-Sands / Hest Bank</b> Report SDC2: Wild Duck Hall, Bolton-le-Sands to Ocean Edge Caravan Park, Heysham (Report maps SDC 2a, SDC 2b and Direction map SDC 2A)	There are very low numbers of breeding birds considering the size of the marsh. There are significant levels of recreational disturbance on the site, although the habitat is in reasonable condition.	The existing Lancashire Coastal Way continues along the coast from Wild Duck Hall through to Morecambe Promenade. This section of the existing coastal route is already popular with walkers. There are several busy car parks and cafés along this section of coast. The car parks and adjacent saltmarsh / foreshore at Wild Duck Hall and Red Bank Farm in particular are popular with local dog walkers.	<b>Low risk</b> It is expected that there will be negligible change in access to the margin as a result of the proposals. Therefore there will be no additional disturbance to breeding birds as a result of the proposals.
		The proposed ECP will follow the existing Lancashire Coastal Way. <b>Trail:</b> As this section is currently very well used by walkers it is expected that there will be negligible change in use of the coastal way as a result of the proposals. <b>Coastal margin:</b> Access would be excluded from much of the coastal margin in this subsection under s25A as it is unsuitable for access. A fringe of saltmarsh and foreshore next to the path will not be included in this direction however and will become accessible margin. However, as this area is already well used for a variety of different types of recreational activity including walking, dog walking and horse riding, it is not expected that access levels will increase as a result of the proposals.	



**Table 3b. Areas where there is a risk of impact on ground nesting birds and where mitigation is required to reduce the risk**

Location Cross reference to the Coastal Access Report	Location & species breeding	Existing recreational use in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
	Existing disturbance to breeding birds	Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species			
<b>South Ulverston / Carter Pool / Glaxo refuse site</b>  Report SCS 4: Newbiggin to Greenodd footbridge, (Report maps SCS 4e & 4f and Directions maps SCS 4B & 4E)	Ringed plover breed here.  This area is currently relatively undisturbed.	This area is fairly inaccessible due to deep creeks and industrial buildings.  The proposed ECP is aligned on a disused railway line and pavement / roads landward of this site. The site falls within the coastal margin. <b>Trail:</b> There is likely to be a large increase in use on the disused railway line, and a small increase in use elsewhere. <b>Coastal margin:</b> Access to the disused refuse site, which will fall within the margin, is currently discouraged by the landowner. We expect an increase in use along the line of the trail along the old railway line, and this will mean more people could access the margin in this area.	If this area becomes spreading room, access is likely to increase and therefore disturbance to breeding birds is likely to increase.	In order to prevent disturbance as a result of the proposals to breeding birds at South Ulverston / Carter Pool / Glaxo refuse site the following mitigation is proposed: a) Access will be restricted or excluded in the following areas under s26 (nature conservation): i) Carter Pool and old tip area ii) Saltmarsh area adjacent to the old railway line b) Clear directional signage at Canal Foot for people walking south, so that it is clear that the ECP heads inland rather than continuing south along the shore. c) Signage at Canal Foot, explaining that there is no access on the foreshore beyond Hammerside Point as the area is unsuitable for access and important for nature conservation. d) Measures to keep people and dogs on the line of the trail on the disused railway line coming in to Ulverston from the south, to prevent disturbance to the south Ulverston Roost and breeding birds on the slag tips: i) Existing wall will be repaired to discourage access to the foreshore ii) Scrub will be planted in gaps to discourage access to the shore.	<b>Low risk</b>  No new access rights will be created in the area used by breeding birds. The proposed mitigation will reduce the risk of people and dogs entering the area.  It is expected that there will be negligible change in access to the area used by breeding birds as a result of the proposals.
	Chapel Island supports the most successful eider breeding colony in the north west of England. There are records of serious disturbance of the breeding eider by organised charity walks to the island. In 2011 a party of 200 people and 30 dogs visited, resulting in large numbers of breeding eiders being flushed from their nests. Later in the year, 247 deserted eggs were found in nests, suggesting a single major disturbance event [REF.1.].	It is possible to walk to Chapel Island from Canal Foot and Sandgate (near Cark - see SCS 4: Newbiggin to Greenodd footbridge, map SCS 4f and SCS 5: Greenodd footbridge to Kents Bank, map SCS 5f) although this can be dangerous due to sinking sands, deep creeks and fast rising tides. Guided walks take place during the summer, with the permission of the landowner.  Chapel Island will fall within the coastal margin. Some of the mudflats between the shore and Chapel Island will be subject to a s25A access exclusions.			

Location Cross reference to the Coastal Access Report	Location & species breeding	Existing recreational use in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
	Existing disturbance to breeding birds	Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species			
<b>West Plain</b> Report SCS 5: Greenodd footbridge to Kents Bank (Report maps SCS 5f to 5i and Directions Map SCS 5K)	7 pairs of lapwing, 2 pairs of redshank and 2 pairs of linnet were recorded in the 2016 survey. Another 5 pairs of lapwing were recorded in the coastal fields adjacent to the SPA / SSSI. Disturbance levels at West Plain are high and increasing, with disturbance from land based activities including dog walkers, quadbikes and motorbikes. This is partly due to rapid erosion of the marsh meaning that birds are being forced closer to the embankment [REFs.2 & 3].	There is a busy public footpath along the flood embankment. This area is well-used by locals and by people staying at the Lakeland Leisure caravan park at West Plain. The caravan site is very busy and open all year round. The proposed ECP will be aligned on the public footpath on top of the flood embankment. <b>Trail:</b> This area is already popular with walkers and promotion of the existing route as a national trail could lead to a small increase in use in an already well used area with limited parking. <b>Coastal Margin:</b> Access to most of the coastal margin will be excluded under a proposed s25A direction. There is unlikely to be an increase in people accessing the coastal margin as a result of our proposals, however there could be a small increase in dogs off lead running into the areas of proposed coastal margin next to the ECP.	There could be an increase in access in dogs off lead in areas of coastal margin close to the ECP. This could cause increased disturbance to birds breeding in the proposed coastal margin.	In order to prevent disturbance as a result of the proposals to birds breeding at West Plain the following mitigation is proposed: - Signage along the line of the ECP asking people to keep dogs under control and not to allow them to roam onto the marsh.	<b>Low risk</b> Access will be excluded from West Plain Marsh under s25A. In order to minimise disturbance from dogs, signage is proposed in the area asking people to keep dogs under effective control and off the marsh. It is unlikely that the coastal access proposals will increase disturbance to birds breeding on the marsh.
<b>East Plain</b> SCS 5: Greenodd footbridge to Kents Bank. (Report maps SCS 5i to 5k and Directions Maps SCS 5K and 5P).	7 pairs of breeding lapwing, 2 pairs of redshank, 1 pair of oystercatchers were recorded in 2016. East Plain is one of the most productive marshes for breeding waders in the north of the Bay. This is likely due to its relative lack of disturbance and diversity of vegetation heights and types.	The caravan site at West Plain is very busy and open all year round. Many of the caravan park residents walk dogs on the sea-defence embankment to the east of the site. Beyond this point few people access the embankment which continues to the car park at Humphrey Head. The ECP is aligned behind the flood embankment at East Plain, in order to prevent disturbance to birds on East Plain Marsh. If the marsh or embankment become spreading room levels of access in these areas are likely to increase.	The route alignment is designed to reduce disturbance to birds at East Plain Marsh. The ECP is separated from the embankment by a ditch in most places. The embankment and marsh fall into the coastal margin, and if access on the embankment or marsh were to increase, there could be significant disturbance to birds breeding on East Plain Marsh.	In order to prevent disturbance as a result of the proposals to breeding birds at East Plain the following mitigation is proposed: i) Total access exclusion year round to the areas of marsh not covered by S25a, and to the embankment. ii) Signage at both ends of the embankment clearly showing which areas are available for access. iii) In places where there is no ditch seaward of the path, a fence will be erected to prevent people and dogs getting onto the floodbank.	<b>Low risk</b> Access will be excluded from the marshes and flats in this subsection, and the margin will not be easily accessible from the ECP. It is expected that there will be negligible change in access to the areas used by breeding birds as a result of the proposals, and therefore disturbance of breeding birds will not increase as a result of the proposals.
<b>Quaker Stang to River Keer</b> Report SDC1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report maps SDC 1c, SDC 1d)	<b>Inner Marsh (Leighton Moss)</b> There is a black headed gull colony at Inner Marsh. Avocets also breed on the islands.	Between Quakers Stang and the River Keer, the existing Lancashire Coastal Way follows Crag Road, a public highway, which is located inland from the coast. There are no existing paths or pavements to the seaward side of the existing Lancashire Coastal Way that provide direct links along the coast. Warton Common (Carnforth Marsh) is already designated as open access land under CROW. However, it is not possible to walk from Brown's	Establishing a new path between Ings Point and Cotestones will increase recreational activity alongside a part of the salt marsh used by breeding redshank, and will create a new access point to the	A package of access management and mitigation measures has been developed to reduce the risk or disturbance to non-breeding waterbirds and breeding waders and seabirds across this whole site. <b>Mitigation for the proposed new section of path between Ings Point and Cotestones:</b> In order to ensure that walkers and dogs stay on the line of the ECP, a new dog proof fence will be erected seaward of	<b>Low risk</b> With this route alignment and mitigation in place, there is a low risk of an increase in disturbance to breeding birds as a result of the proposals.

Location Cross reference to the Coastal Access Report	Location & species breeding	Existing recreational use in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
	Existing disturbance to breeding birds	Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species			
& SDC 1e and Directions maps SDC 1D and SDC 1E)	<p>Disturbance from recreational activities is not affecting site condition at this location.</p> <p><b>Carnforth Marsh (Warton Common)</b></p> <p>Carnforth Marsh is an important location for breeding waders. The marsh accounts for less than a fifth of the total saltmarsh area within Morecambe Bay SSSI but supports 86% (51 out of 59 pairs) of the breeding redshank and 61% (43 out of 70 pairs) of the oystercatcher populations. The site also supports a small number of breeding ringed plover.</p> <p>Disturbance from recreational activities is impacting on breeding success for ringed plover and oystercatcher in the slag banks area.</p>	<p>Houses to the River Keer across the marsh, due to several creeks and the deep channel called Quicksands Pool. Neither is it possible to walk along the seaward edge of the railway line from Quakers Stang to the River Keer due to the location of the RSPB reserve (an area which is not designated as open access land under CROW).</p> <p>Inner Marsh is not part of the common. It is managed by RSPB as a part of their Leighton Moss reserve.</p> <p>The main access point to Warton Common is via Cotestones, where there is a small layby for parking. On race days, vehicular gates at Cotestones are opened and there is parking on extensive hard standing in the race track area. Dog walking is a popular activity over this part of the common. Recreational activity is concentrated along the bank of the River Keer to the race track and southern end of the slag banks. A smaller number of people take longer walks along the slag banks and a track that runs parallel to them. Occasionally people walk over drier parts of the salt marsh where there are no established paths. Such use is limited however as the mud flats and much of the salt marsh are dangerous and difficult to walk over.</p> <p>There is an interpretation panel about wildlife on the southern end of the slag banks. A temporary fenced enclosure has been installed around potential habitat for breeding ringed plover in this area.</p> <p>There is currently a 'no dogs' restriction (under CROW) over the most of Warton Marsh and Sands, including the majority of the slag banks area, from 1 November to 31 July, to protect wintering and breeding birds. Dogs are required to be on a lead at other times in the restricted area. On-site information about the restriction is limited.</p>	<p>marsh at Ings Point, which is close to the important breeding areas at Inner Marsh.</p> <p>The salt marsh vegetation provides some cover for breeding birds and impacts from people (and their dogs) sticking to the line of the path are likely to be minimal. However; dogs off-lead in this area would cause significantly more disturbance. It is possible that new desire lines over the marsh from the new section of path would develop, increasing human presence on Carnforth Marsh and Inner Marsh.</p> <p>A new s25A restriction is proposed, removing coastal access rights from the majority of mud flats and much of the salt marsh that is unsuitable for access.</p> <p>Without further mitigation, disturbance could increase in areas used by breeding birds on Carnforth Marsh and Inner Marsh in areas not covered by this s25A restriction as they would fall within spreading room. Access to the proposed coastal margin is likely to increase.</p> <p>Patterns of recreational use in areas that</p>	<p>the trail between the railway crossing at Ings Point and Cotestones.</p> <p>Once the trail is open, Natural England will ensure that arrangements are in place to check that the fence is in good condition and repairs made promptly if necessary.</p> <p>The fence is required to reduce disturbance of ground nesting birds on salt marsh near the trail and to prevent new desire lines developing that might increase disturbance to roosting and breeding birds on Inner Marsh and Carnforth Marsh. It will also act to clearly delineate the extent of the new access rights.</p> <p><b>Mitigation within the coastal margin:</b></p> <p>Coastal access rights will be excluded over the majority of mudflats and much of the saltmarsh of Warton Common on public safety grounds (s25A). The following additional restrictions are proposed for nature conservations reasons:</p> <p>A direction to exclude access all year round from the field at Ings Point.</p> <p>A direction to exclude access all year round from Inner Marsh.</p> <p>A direction to exclude access all year round from areas of Carnforth Marsh and the slag banks that are not covered by the s25A access exclusion.</p> <p>The access restrictions, plus the fencing, will reduce the risk of disturbance of ground nesting birds on saltmarsh near the trail, and are also relevant to preventing new desire lines developing that might increase access (and therefore disturbance of birds) using areas of Inner Marsh and Carnforth Marsh for breeding and roosting.</p> <p>The route currently used by dog walkers along the River Keer will remain available to walkers. New signage will be installed, promoting a route to a point on the slag banks, beyond which new access rights would be excluded.</p> <p>Guide posts on the slag banks will help to delineate the end of the dog walking route and the extent of the accessible area.</p> <p>New signage and information at Ings Point and Cotestones and in the slag banks area will be installed to inform people about the exclusions and restrictions and those areas where dogs can be exercised off-lead.</p> <p>An on-site event will be held when access rights commence, to raise awareness about the changes in access arrangements proposed and reasons for them.</p>	



Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species  Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
		<p>car park for example. There is likely to be a large increase in use of the trail from New Road to Cotestones, an area which currently has very low levels of access.</p> <p>Between Cotestones and the River Keer it is expected there will be a small increase in use of the proposed route as a result of installing new steps and sections of boardwalk. This area is currently used by local dog walkers.</p> <p><b>Coastal margin:</b> Large areas of coastal margin will be created as a result of the proposals and access to the margin could increase.</p> <p>The proposal to establish a new section of path from New Road to Cotestones will create a new access point onto Warton Common at Ings Point. The new path will substantially improve access to this part of the common, and it is possible that new desire lines may develop beyond the proposed trail, including in the vicinity of Inner Marsh and area of marsh between the new section of path and slag banks where access with dogs is currently restricted. Elsewhere over Warton Common, the current pattern of access is unlikely to change as a result of becoming part of the coastal margin. Coastal access rights will be excluded under s25A from the mud flats and much of the saltmarsh, since these areas are unsuitable for public access (restriction of CRoW access rights on public safety grounds was not previously possible).</p>	<p>provide suitable habitat for ringed plover (the slag banks) would be unlikely to change significantly as a result of the proposals, however; current disturbance pressure from recreation affecting breeding success and would not be improved.</p>		
<p><b>Red Nab</b> Report SDC2: Wild Duck Hall, Bolton-le-Sands to Ocean Edge Caravan Park, Heysham and Report SDC 3: Ocean Edge Caravan Park, Heysham to Carlisle Bridge, Lancaster. (Report maps SDC 2h and SDC 3a and Direction maps SDC 2G and SDC 3F)</p>	<p>Red Nab is a really rich area for feeding waders during the breeding season. Juvenile birds are often recorded there late in the breeding season.</p>	<p>Informal parking is already provided near Ocean Edge Caravan Park. People park here to access the seawall in front of the power station and beach. The area is well used by dog walkers</p> <p>The proposed ECP passes landward of Heysham Port and Power Station to Ocean Edge Caravan Park.</p> <p><b>Trail:</b> There is likely to be an increase in access to the trail through Ocean Edge Caravan Park.</p> <p><b>Coastal margin:</b> Access to the coastal margin may increase slightly in this area.</p>	<p>Disturbance could increase at Red Nab in this area if it becomes spreading room.</p>	<p>A direction to exclude access under s26(3)(a) all year round is proposed for nature conservation reasons. Signage is proposed to inform people about the restriction.</p>	<p><b>Low risk</b> Because of the proposed mitigation, it is expected that there will be negligible change in levels or patterns of access to Red Nab as a result of the proposals. Therefore there will not be an increase in disturbance to feeding waders at Red Nab during the breeding season.</p>

**Conclusion:** With the route alignment and mitigation described in place, the proposals will not have a significant impact on breeding ground nesting birds.

## 2. THICK VEGETATION AND SCRUB NESTING BIRDS

Birds that nest in thick vegetation and scrub are less susceptible to disturbance (shelduck, wheatear, sedge warbler, linnets, reed bunting,). Any disruption of nesting, linked to public access, is most likely to be caused by dogs off leads.

In some places the route of the ECP goes through the breeding territories of these species. Aligning the ECP through the territories won't, in itself, cause a loss of habitat. The habitat remains available for feeding and foraging. Passerines such as stonechats and pipits will continue to forage in these areas. The narrow path will become unavailable as nest sites but the size of this in comparison to the available habitat is minimal. The alignment is unlikely to cause a decline in the diversity of species in the location which will ensure that the feature will maintain its SSSI score necessary for designation. This is particularly true for sites where there is existing unofficial access creating a network of paths. The alignment and way-marking of a single route along with the new restrictions may be beneficial by reducing current patterns of access and so adding to available habitat.

### Establishment works

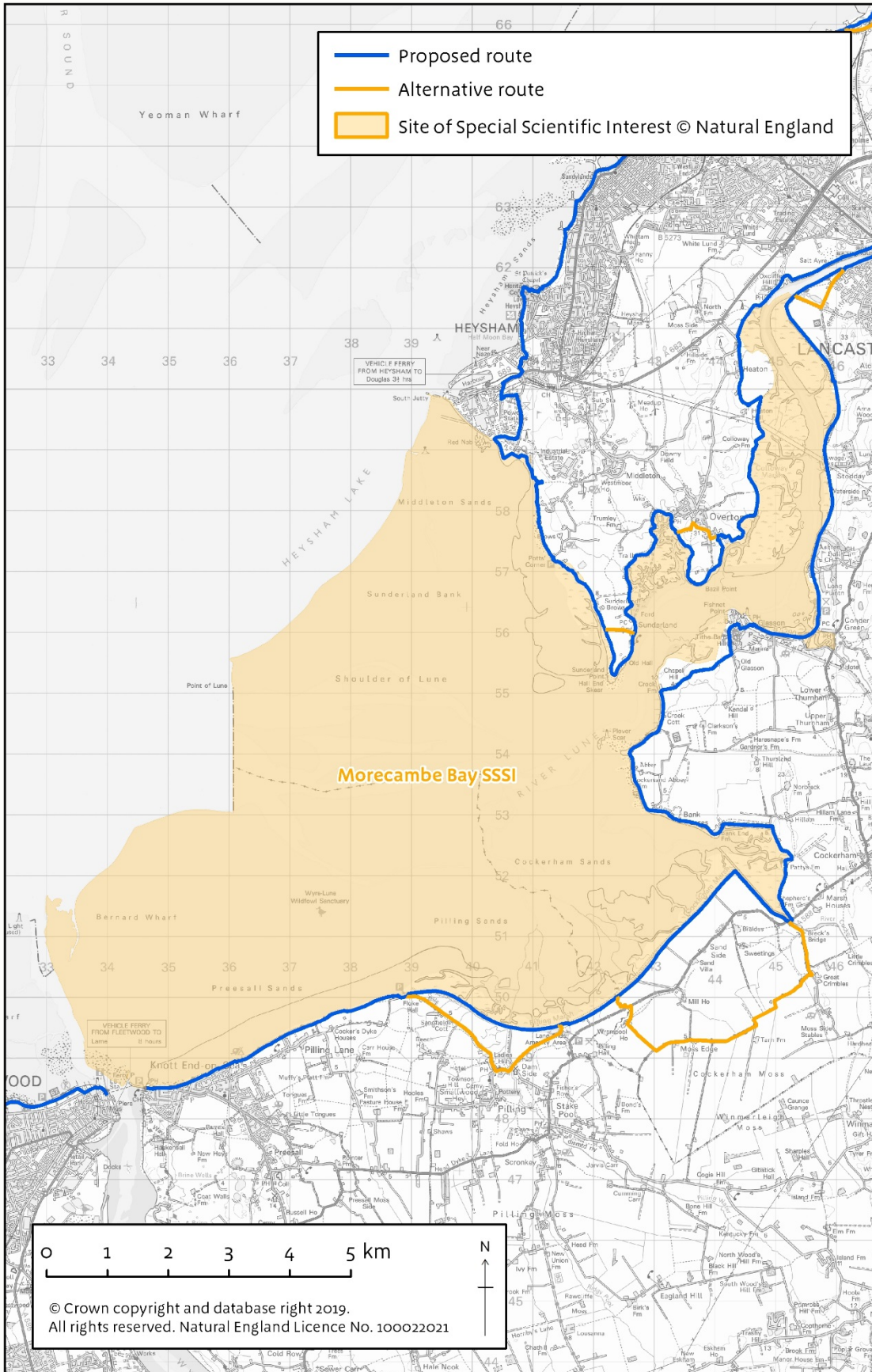
Is SSSI assent needed to implement any specific proposals for establishment works? **Yes**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

- Works in areas where birds breed should take place outside of the breeding season.
- Works close to areas where birds roost should not take place for 2 hours either side of high tide.
- For works on saltmarshes, access routes, storage of materials and types of vehicles used must be agreed with NE, in order to reduce the damage to the habitat.
- Vehicles and machinery will be refuelled off-site

Where necessary, Cumbria County Council and Lancashire 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.

**Map showing Morecambe Bay SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Sea Wood SSSI

Is this site also part of a European site? **No**

There may be interaction between the Coastal Access proposals and the designated features:

- W9a. *Fraxinus excelsior* - *Sorbus aucuparia* - *Mercurialis perennis* woodland, typical subcommunity
- W8e & f. *Fraxinus excelsior* - *Acer campestre* - *Mercurialis perennis* woodland, *Geranium robertianum*/*Allium ursinum* sub-communities

Ground flora in these woodland communities could be affected by trampling, leading to loss of extent of ground flora.

## Current situation

A popular path runs through Sea Wood SSSI.

Currently water draining from the road crosses and gathers on the path making the path difficult to use at times and causing walkers to avoid the muddy area, therefore enlarging the area affected by trampling. A few windblown trees have uplifted root plates which have reduced the useable path width.

There are some existing issues with unauthorised access by cyclists.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 4: Newbiggin to Greenodd footbridge, map SCS 4c.**

The ECP follows the popular path. A section of path will be improved with installation of an 8m culvert. Elsewhere the water drains freely off the path so we are proposing no changes which would affect this drainage. Steps will be added at the western corner of the wood to take walkers from within the woodland to the path continuing below the low cliff to the west.

There are some concerns about existing access by cyclists. Cyclists will not have a right of access along the ECP. At points the path narrows between boulders and none of the proposed ECP-related improvements are likely to make the path more attractive to cyclists.

A strip of woodland would fall within the coastal margin. The path improvements will encourage people to walk on the path rather than across the wider proposed coastal margin and, given that there is a low cliff seaward of the path, it is unlikely that there will be an increase in access to the woodland edge.

Therefore the proposals will not have a significant impact on the features of Sea Wood SSSI.

## Establishment works

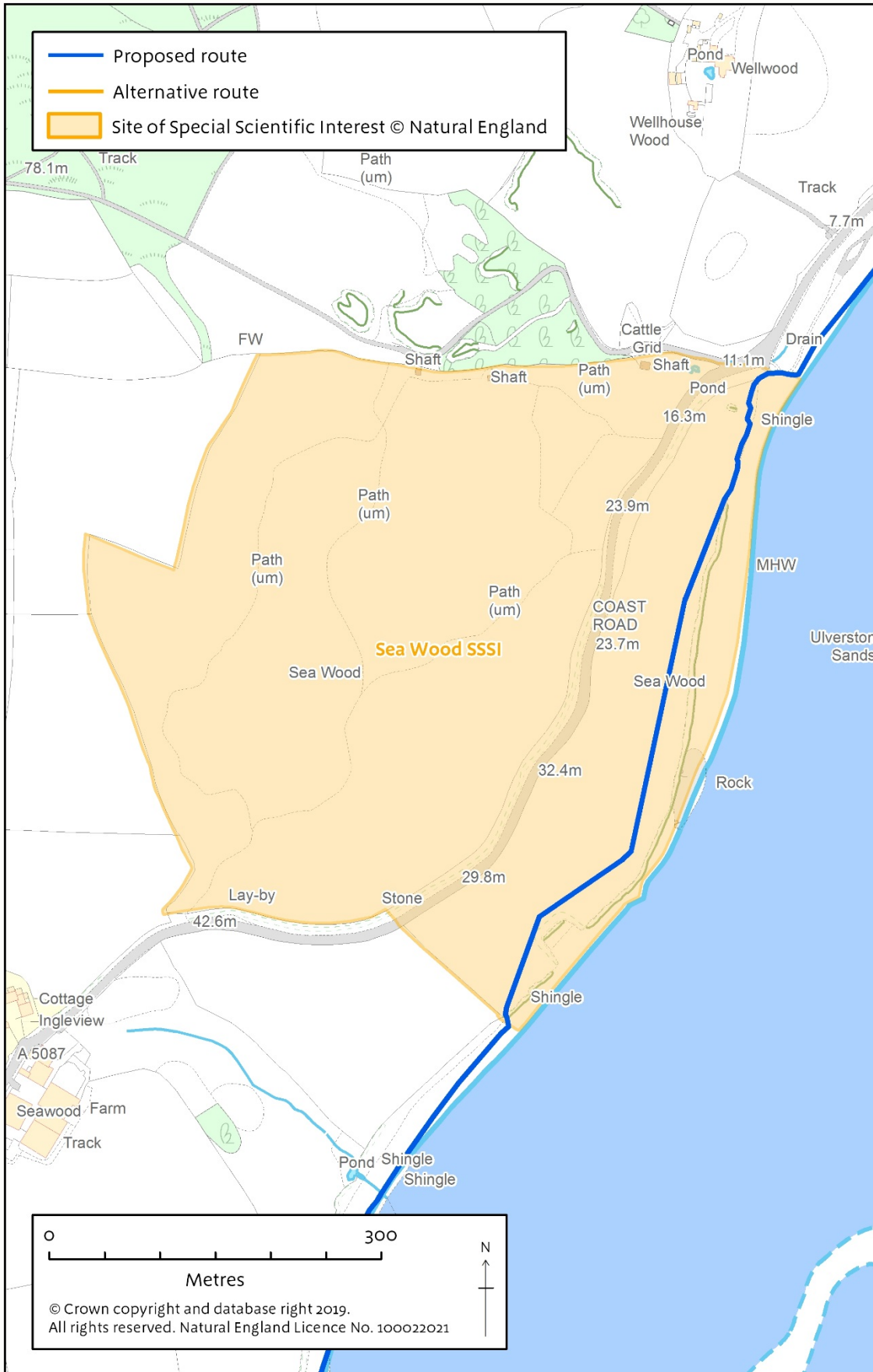
Is SSSI assent needed to implement any specific proposals for establishment works? **Yes**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Cumbria 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.



**Map showing Sea Wood SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Roudsea Wood and Mosses SSSI

Is this site also part of a European site? **Yes**

The following features of the SSSI occur outside the project area and therefore will not be affected by our proposals.

- Lowland raised bog  
M18 *Erica tetralix-Sphagnum papillosum* raised and blanket mire
- Invertebrate Assemblage (Broad Assemblage Type: W31 permanent wet mire. Specific Assemblage Types W311 open water in acid mire W312 acid mire.)

There may be interaction between the Coastal Access proposals and the designated features listed below. These features of the SSSI are **NOT** features of any of the European sites, and the impact of the coastal access proposals are considered here.

- Wet and Acidic Woodland
  - W2a *Salix cinerea-Betula pubescens-Phragmites australis* woodland, *Alnus glutinosa - Filipendula* subcommunity
  - W4a & b *Betula pubescens-Molinia caerulea* woodland, *Dryopteris dilatata-Rubus fruticosus* and *Juncus effusus* subcommunities
  - W6a *Alnus glutinosa-Urtica dioica* woodland, typical subcommunity
  - W7b *Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum* woodland, *Carex remota-Cirsium palustre* subcommunity
  - W11a *Quercus petraea - Betula pubescens - Oxalis acetosella* woodland, *Dryopteris dilatata* subcommunity
  - W16b *Quercus sp -Betula sp-Deschampsia flexuosa* woodland, *Vaccinium myrtillus-Dryopteris dilatata* subcommunity
- Calcareous woodland
  - W8e & f *Fraxinus excelsior – Acer campestre – Mercurialis perennis* woodland, *Geranium robertianum* and *Allium ursinum* subcommunities
- Vascular Plant Assemblage
  - Allium scorodoprasum, Carex vulpina, Hypericum montanum, Meconopsis cambrica, Andromeda polifolia, Carex flava, Sorbus lancastriensis, Carex digitata Carex elongata*

## Current situation

There is a network of waymarked permissive routes through the woodland at Roudsea Wood and Mosses NNR; access is restricted to the waymarked routes and visitors must obtain a permit before they can access the site.

## Risk analysis

The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 5 Greenodd Footbridge to Kents Bank, maps SCS 5a and 5b and Direction maps SCS 5H and 5L.

The ECP is aligned through Roudsea Woods on an existing vehicle track which forms part of the existing permissive route network. Other than refreshed signage, there are no other infrastructure requirements for this part of the ECP.

It is expected that access along the ECP will increase as a result of the proposals, as the route will be promoted and visitors will no longer require a permit to walk on the line of the ECP.

An area of woodland falls within the proposed coastal margin. Access would be excluded year-round from this area of the coastal margin, to prevent disturbance to dormice. Therefore there will be no new access rights to the woodlands as a result of the proposals.

Signage at access points and at strategic locations along the proposed trail within the woods will inform people about the access restrictions, the nature conservation interest of the site, that they should stay on the line of the ECP and keep dogs on leads.

There will be no new access rights to the woods that would fall within the coastal margin, and therefore there is a low risk of increase in trampling of the woodland habitat and associated assemblages.

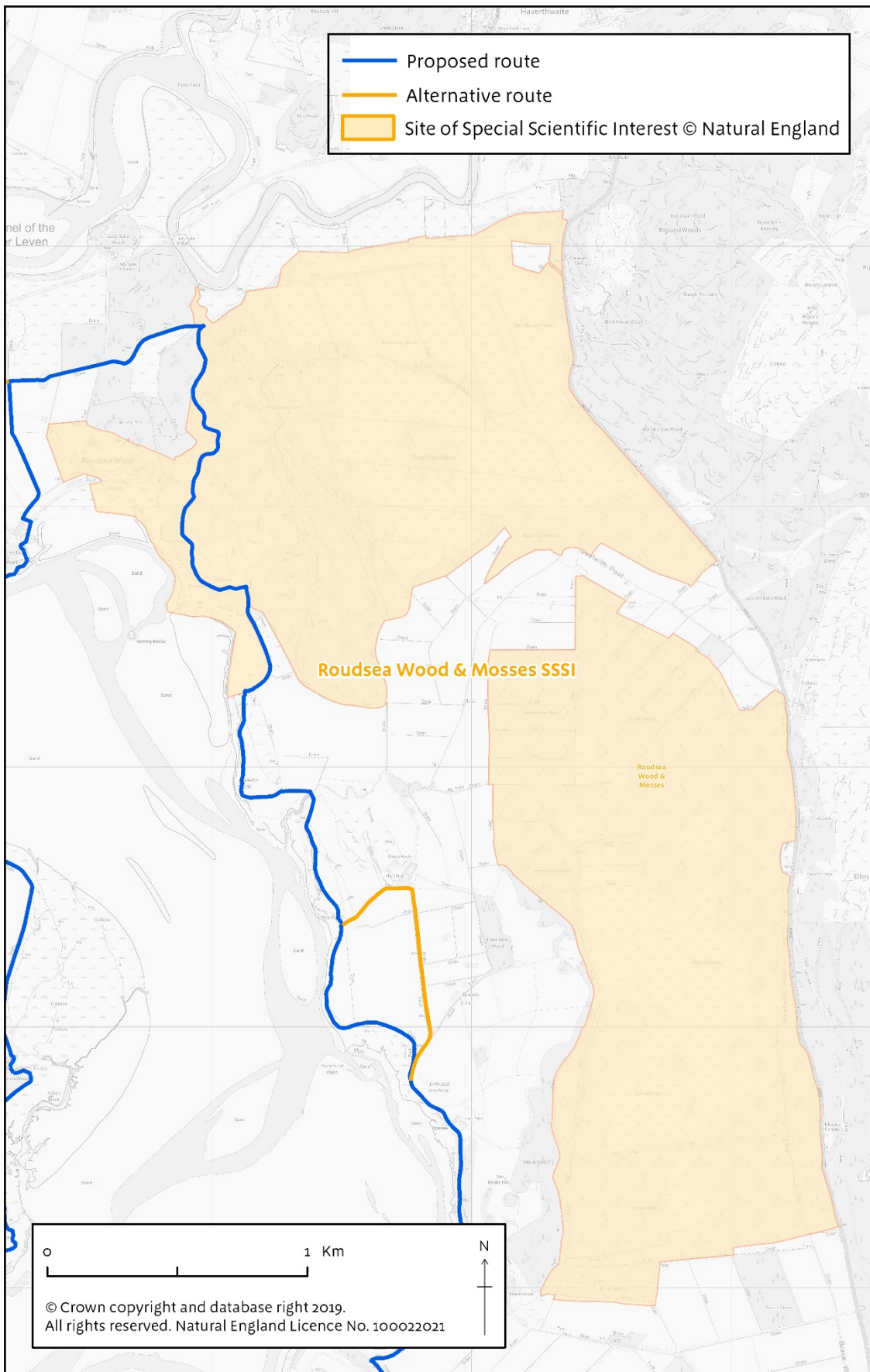
## **Establishment works**

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

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Cumbria 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.

# Map showing Roudsea Wood & Mosses SSSI and proposed route of the ECP



# Assessment of coastal access proposals on Skelwith Hill SSSI

Is this site also part of a European site? **No**

Skelwith Hill SSSI is designated for its geological feature:

- Coastal cliffs and foreshore - Carboniferous stratigraphy

An important and controversial junction between two major subdivisions of the Carboniferous period, the Martin Limestone formation and Red Hill Oolite formation, is exposed in the cliff and foreshore outcrops. The junction is marked by a layer of rock, the Skelwith Breccia, made up of angular fragments, which indicate a major break in the sequence and deposition of the limestones.

## Current situation

The geological feature at Skelwith Hill is in favourable condition (2016 assessment). The site passes on all criteria; the exposures are all accessible (at low tide) and visible, the vegetation does not obscure the geological features, there is no build-up of loose material and there are no signs of activities that would affect the geological interest.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 5 Greenodd Footbridge to Kents Bank , map SCS 5c.**

The proposed ECP runs through Skelwith Hill SSSI and the cliffs fall within the margin.

The geological features of cliffs are not usually sensitive to changes in access. The main threats to conservation of geological features are operations or vegetation growth that obscure the rock exposures.

As this feature is not sensitive to changes in access, there will be no impact on the feature as a result of the Coastal Access proposals

## Establishment works

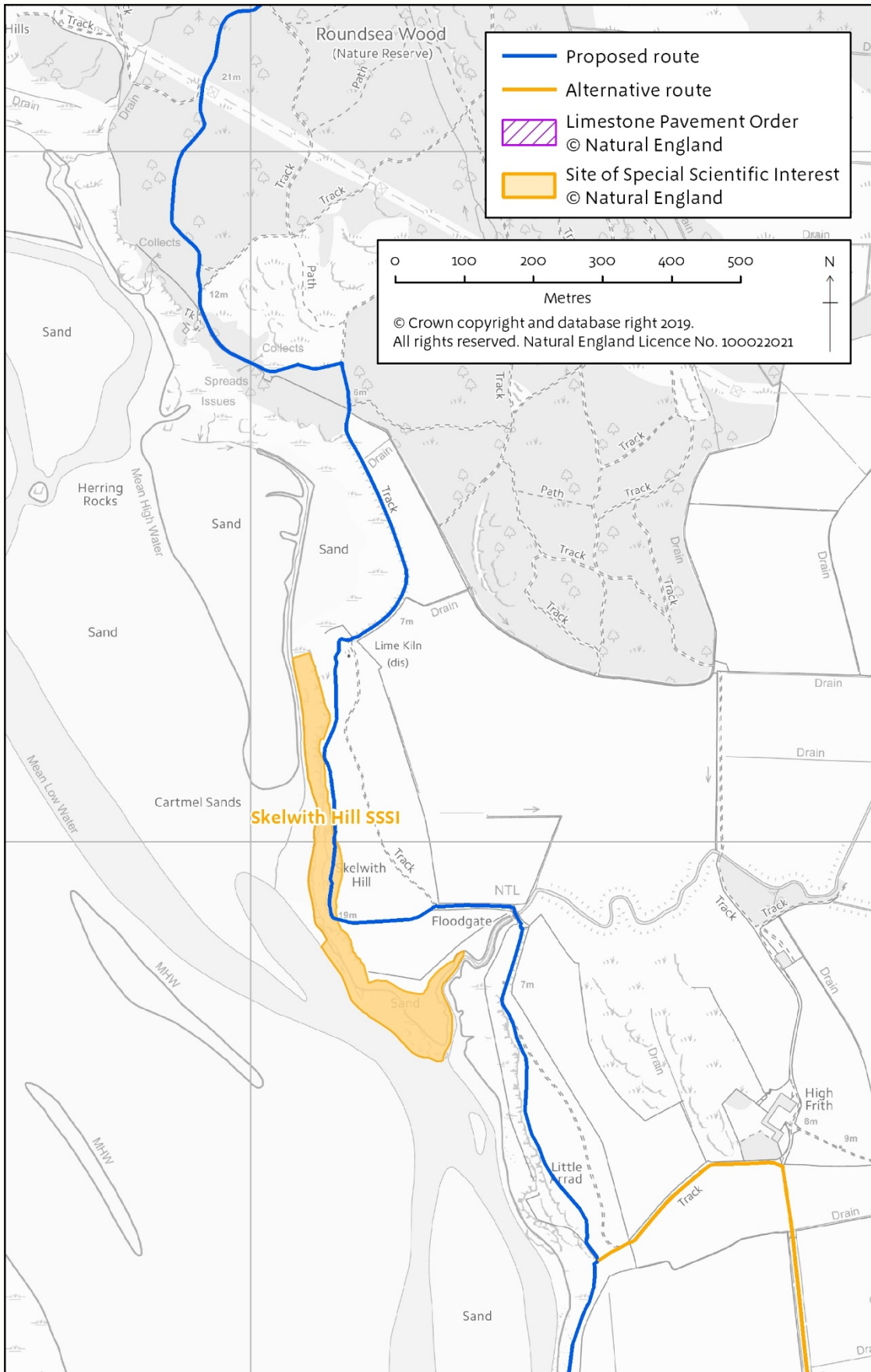
Is SSSI assent needed to implement any specific proposals for establishment works? **Yes**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Cumbria 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.



**Map showing Skelwith Hill SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Barker Scar SSSI

Is this site also part of a European site? **No**

There may be interaction between the Coastal Access proposals and the designated features:

- Calcareous grassland CG9 *Sesleria caerulea* – *Galium sternerii* grassland, CG2 *Festuca ovina* – *Avenula pratensis* grassland
- Upland mixed ash woodland W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland W9 *Fraxinus excelsior*-*Sorbus aucuparia*-*Mercurialis perennis* woodland
- Dinantian, cliff sections. (geological feature)
- Vascular plant assemblage *Potentilla neumanniana*, *Sesleria caerulea*, *Sorbus lancastriensis*, *Galium sternerii*

The geological features of cliffs are not usually sensitive to changes in access. The main threats to conservation of geological features are operations or vegetation growth that obscure the rock exposures. Therefore the proposals will not have an impact on the geological features.

The calcareous grassland and vascular plant assemblage are sensitive to trampling damage, leading to changes in species composition and loss of habitat.

Ground flora in the woodland communities could be affected by trampling, leading to loss of extent of ground flora.

## Current situation

There are existing permissive routes within the SSSI, which are available to permit holders and people staying at the caravan park.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 5 Greenodd Footbridge to Kents Bank, map 5d. See also Directions maps SCS 5F.**

Barker Scar would fall within the coastal margin: however, new access rights would be excluded all year round for land management reasons.

The permissive routes are not signposted from the ECP and will not be promoted to users of the ECP. Because of the proposed year-round access exclusion in the coastal margin, it is not expected that access levels in the SSSI will increase in this area as a result of our proposals, and therefore trampling damage to the features will not increase.

## Establishment works

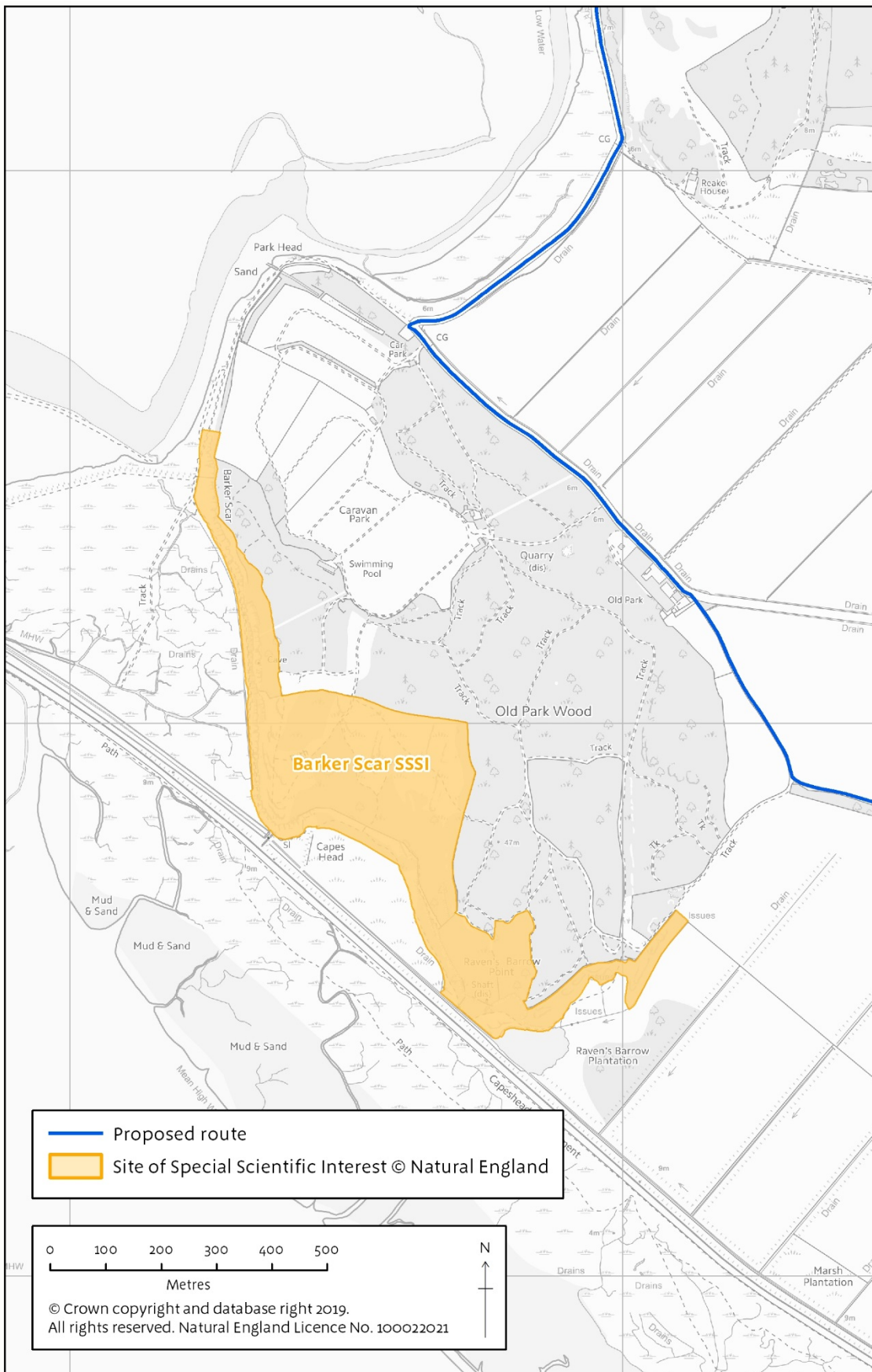
Is SSSI assent needed to implement any specific proposals for establishment works? **No**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Cumbria Country 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.



**Map showing Barker Scar SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Humphrey Head SSSI

Is this site also part of a European site?      **No**

There may be interaction between the Coastal Access proposals and the designated features:

- CG9 *Sesleria caerulea* – *Gallium sternerii* grassland
- W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland
- W9 *Fraxinus excelsior*-*Sorbus aucuparia*-*Mercurialis perennis* woodland
- Dinantian, cliff sections. (geological feature)
- Vascular plant assemblage *Aster linosyris*, *Helianthemum oelandicum* ssp. *Incanum*, *Hypochaeris maculate*, *Limonium humile*, *Minuartia verna*, *Potentilla neumanniana*, *Sesleria caerulea*, *Sorbus lancastriensis*, *Sorbus rupicola*, *Veronica spicata* ssp. *hybrid*, *Euphorbia portlandica*, *Galium sternerii*, *Hypericum montanum*, *Polypodium cambricum*

The geological features of cliffs are not usually sensitive to changes in access. The main threats to conservation of geological features are operations or vegetation growth that obscure the rock exposures. Therefore the proposals will not have an impact on the geological features.

The calcareous grassland and vascular plant assemblage are sensitive to trampling damage, leading to changes in species composition and loss of habitat.

Ground flora in the woodland communities could be affected by trampling, leading to loss of extent of ground flora.

The following items of infrastructure / works are required:

- i) Repair existing path (5m section of benching / revetment and 8m section of surfacing)
- ii) Replace 5 old kissing gates with new kissing gates
- iii) 4 long backfilled steps
- iv) removal of 4 windblown trees
- v) waymarker posts

## Current situation

Humphrey Head is a Cumbria Wildlife Trust Reserve. There are permissive waymarked routes around the reserve.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 5 Greenodd Footbridge to Kents Bank, maps SCS 5k.**

The proposed ECP will follow existing permissive routes. A small increase in use is expected. This will not lead to significant trampling or nutrient enrichment of the habitat and is unlikely to change the grazing patterns, as the livestock are currently used to walkers and dogs.

The path will be established with minimal infrastructure. In the woodland, the existing path will be repaired - some windblown trees will be cleared, a section of benching and revetment and 8m of flagstone surfacing will be laid.

Therefore it is concluded that the proposals will not have a significant impact on these features.

## **Establishment works**

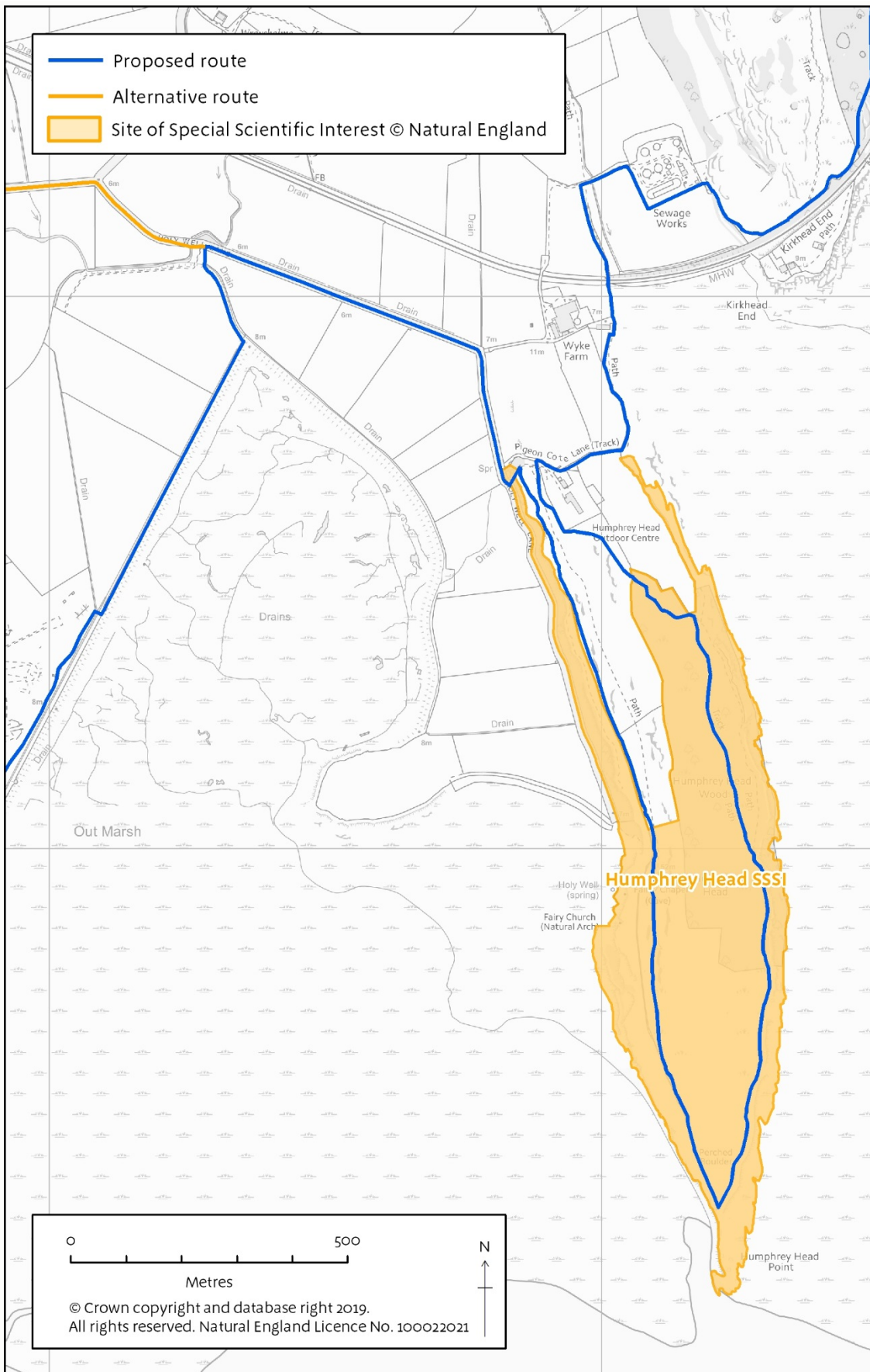
Is SSSI assent needed to implement any specific proposals for establishment works? **Yes**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

- Access routes, storage of materials and types of vehicles used must be agreed with NE, in order to reduce damage to the habitat.
- Vehicles and machinery will be refuelled off site.

Where necessary, Cumbria 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.

**Map showing Humphrey Head SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Arnside Knott SSSI

Is this site also part of a European site? **No**

There may be interaction between the Coastal Access proposals and the designated features:

- W8/9 *Fraxinus excelsior* – *Sorbus aucuparia* – *Mercurialis perennis* woodland
- Calcareous grassland CG9 *Sesleria caerulea* – *Galium sternerii* grassland
- H10 *Calluna vulgaris* – *Erica cinerea*
- Vascular Plant Assemblage (*Carex ericetorum*, *Carex digitata*, *Epipactis atrorubens*, *Gymnocarpium robertianum*, *Minuartia verna*, *Potentilla tabernaemontani*, *Sesleria caerulea*, *Sorbus lancastriensis*, *Sorbus rupicola*, *Viola rupestris*)
- High Brown Fritillary *Argynnis adippe*
- Northern Brown Argus *Aricia Artaxerxes*
- Pearl Bordered Fritillary *Boloria Euphrosyne*
- Scotch Argus *Erebia aethiops*
- Grayling *Hipparchia semele*
- Invertebrate assemblage (Broad assemblage type: F21 grassland and scrub matrix)

The proposed ECP goes through units 1 and 2 only. Calcareous grassland and H10 *Calluna vulgaris* – *Erica cinerea* are found in units 4-7 and are therefore outside the project area and not affected by our proposals.

Ground flora in the woodland communities and the Vascular Plant assemblage could be affected by trampling, leading to loss of extent of ground flora.

The invertebrates could be affected by an increase in trampling.

The following infrastructure is proposed:

- Scrub cut and canopy raising cut to widen existing paths to 1.5m through Arnside Knott SSSI
- 1 kissing gate
- Fingerposts and waymarker posts

## Current situation

There are high levels of existing access through the SSSI, on a network of public rights of way and other paths. This is a popular walking destination within the Arnside and Silverdale AONB.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 6 Kents Bank to Cove Well, Silverdale, maps SCS 6d and Directions map SCS 6C.**

The proposed ECP is aligned through Arnside Knott SSSI on public rights of way and existing walked routes.



It is expected that there will be negligible increase in use of the trail in this area, as the paths are already very popular. Therefore there will not be an increase in trampling of vegetation.

No infrastructure is required in this area, apart from gates and signage. Annual scrub cutting is proposed on much of the route. There is a risk that rare species such as Lancastrian Whitebeam could be removed during scrub clearance.

In order to avoid damage to the species of the Vascular Plant Assemblage and woodland features, the following mitigation is proposed during scrub clearance: Only common species such as blackthorn will be removed; species such as whitebeam, and the slow growing coastal oak trees will be protected. NE and AONB conservation staff will provide advice on which areas / species can be cleared during the establishment phase.

With the mitigation described in place, it is concluded that the proposal will not have an impact on the features of the SSSI.

## **Establishment works**

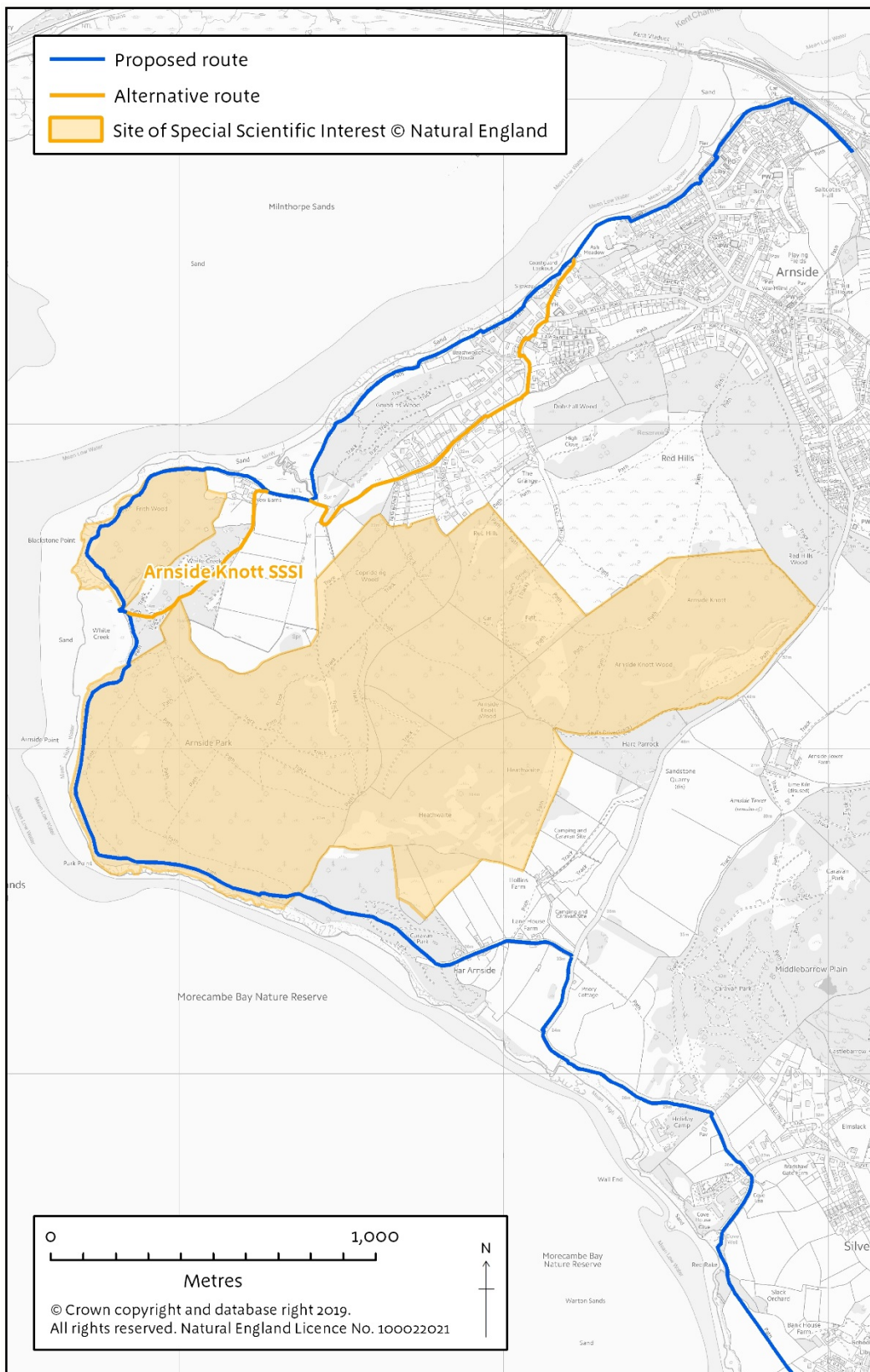
Is SSSI assent needed to implement any specific proposals for establishment works? **Yes**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

NE and AONB conservation staff will provide advice on which areas / species can be cleared during the establishment phase. Only common species such as blackthorn will be removed, species such as whitebeam, and the slow growing coastal oak trees will be avoided.

Where necessary, Cumbria 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

## Map showing Arnside Knott SSSI and proposed route of the ECP



# Assessment of coastal access proposals on Far Arnside SSSI

Is this site also part of a European site? **No**

There may be interaction between the Coastal Access proposals and the designated features:

- Calcareous grassland CG9 *Sesleria caerulea* – *Galium sternerii* grassland
- Vascular Plant Assemblages: *Carex ericetorum*, *Galium sternerii*, *Sesleria caerulea*, *Sorbus lanceolobata*, *Veronica spicata* ssp *hybrid*

These features are sensitive to damage by trampling.

## Current situation

There are very low levels of existing access in the SSSI.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 6 Kents Bank to Cove Well, Silverdale, map SCS 6e and Directions map SCS 6A.**

The proposed ECP is aligned on a new route landward of the SSSI. An initial proposal to align the ECP through Far Arnside SSSI on a surfaced path was not possible as it would cause significant loss of habitat on a small site. Therefore a route inland of the SSSI was proposed, meaning that the SSSI falls within the coastal margin.

It is expected that there will be a large increase in levels of use on the new paths, and access to the coastal margin could increase.

This is a very small SSSI, with limestone grassland on thin coastal soils, which is particularly sensitive to trampling.

The SSSI is managed by conservation grazing. Because of the small size of the SSSI, it is grazed as a unit with two adjacent fields. There is no gate between the SSSI and these fields, as the water trough is in the fields and cattle need access to it at all times. The ECP is aligned in these fields, and therefore it is possible that grazing patterns of livestock may be affected by the proposals.

Mitigation is required to prevent trampling of vegetation on Far Arnside SSSI, and to minimise the risk of changes in grazing patterns on the SSSI.

The following mitigation is proposed:

- i) A year round total access exclusion under s26 (nature conservation) to the SSSI and adjacent fields which are grazed as one unit.
- ii) The proposed ECP through the fields adjacent to the SSSI will be in a fenced corridor in order to separate dogs from livestock and discourage people from accessing the fields.

With this mitigation in place, the proposals will not increase levels of access to the SSSI and the conservation grazing regime will not be impacted. Therefore it is concluded that the proposal will not have a significant impact on the features of the SSSI.

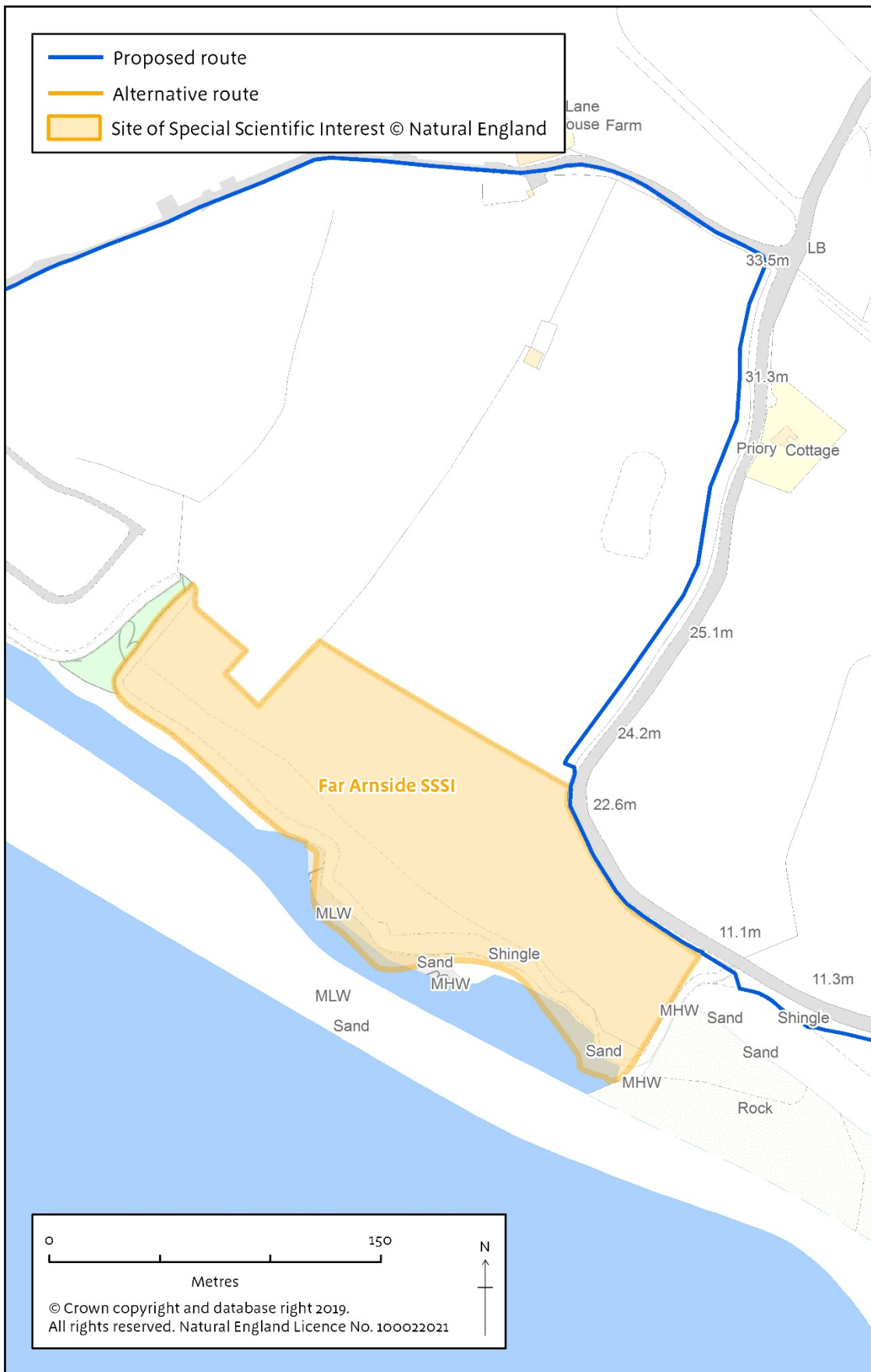
## Establishment works

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

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Cumbria 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.

**Map showing Far Arnside SSSI and proposed route of the ECP**





# Assessment of coastal access proposals on Jack Scout SSSI

Is this site also part of a European site? **No**

There may be interaction between the Coastal Access proposals and the designated features:

- CG2 *Festuca ovina* – *Avenula pratensis* grassland
- CG9 *Sesleria albicans* – *Galium sternerii* grassland
- CG10 *Festuca ovina* – *Agrostis capillaris* – *Thymus praecox* grassland
- Nationally Scarce Plants *Carex erictorum*, *Minuartia verna*, *Sesleria caerulea*, *Sorbus rupicola* and *Sorbus lancastrensis*

These habitats and species are sensitive to trampling.

Infrastructure and establishment works required:

- Plastic steps bolted into cliff between Cow Close Wood and the cliff top, and associated gate
- Scrub clearance on a new short section of path where the steps enter the SSSI.
- New section of backfilled timber steps (approx. 20m)
- Waymarker posts

## Current situation

Jack Scout SSSI has an existing network of popular paths.

There is some trampling damage (changes in species composition / loss of vegetation) next to the busiest of these paths.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report maps SDC 1a and SDC 1b)-**

The proposed route through Jack Scout SSSI is aligned on an existing walked route and a new 15m section of path.

The access points to the site are not currently highlighted from Lindeth Road. The proposed ECP will create a new circular route from the village of Silverdale to Jack Scout, and will also have obvious signage highlighting the entrance points to the SSSI from the lane. Therefore it is expected that there will be an increase in levels of access in the SSSI.

The chosen route follows an existing well-walked line to prevent footfall damage to new areas.

In order to install a set of steps up the cliff at the northern end of Jack Scout SSSI some scrub clearance and tree felling will be required. Additionally, some scrub clearance may be carried out adjacent to the site of the new timber steps to allow space for cattle to avoid the steps. We have ensured that it is possible to do this without need to fell or prune the nationally scarce *Sorbus rupicola* and *Sorbus lancastrensis*.

With the route alignment and infrastructure proposed, the proposals will not significantly impact on these features in Jack Scout SSSI. Care must be taken during establishment of the ECP to ensure

that the nationally scarce plants are not damaged. This will be considered during the SSSI assent process.

## **Establishment works**

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

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

NE will provide further advice during the establishment phase, particularly in relation to protection of key species and individual trees. Only common species such as blackthorn will be removed. Nationally scarce whitebeam species and the slow-growing coastal oak trees will not be removed.

Where necessary, Lancashire 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.

**Map showing Jack Scout SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Lune Estuary SSSI

Is this site also part of a European site? **Yes**

There may be interactions between the Coastal Access proposals and the designated features listed below. These features of the SSSI are also features of Duddon Estuary and Morecambe Bay SPA, Morecambe Bay SAC and / or Morecambe Bay Ramsar. An assessment of the impacts of our proposals on these features, and any mitigation required, is undertaken in the HRA published alongside our coastal access proposals.

- Saltmarsh

- Pioneer saltmarsh

- SM6 *Spartina anglica* saltmarsh community

- SM8 Annual *Salicornia* saltmarsh community

- SM9 *Suaeda maritime* saltmarsh community

- SM12 Rayed Aster *Aster tripolium* stands

- Low-mid marsh

- SM10 *Puccinellia-Salicornia-Suaeda* transitional low marsh community

- SM13a *Puccinellia maritima* saltmarsh community.

- Mid-upper marsh

- SM13b *Puccinellia maritima* saltmarsh *Glaux maritima* sub community

- SM13c *Puccinellia maritima* saltmarsh *Limonium vulgare-Armeria maritima* sub community

- SM13d *Puccinellia maritima* saltmarsh *Plantago maritime-Armeria maritima* sub community

- SM14c *Halimione portulacoides*, saltmarsh *Puccinellia maritima* sub community,

- SM15 *Juncus maritimus-Triglochin maritima* saltmarsh community

- SM16a *Festuca rubra* saltmarsh *Puccinellia maritima* sub community

- SM16b *Festuca rubra* saltmarsh *Juncus gerardii* sub community

- SM16c *Festuca rubra* saltmarsh *Glaux maritima* sub community

- SM16d *Festuca rubra* saltmarsh *Leontodon autumnalis* sub community

- SM16e *Festuca rubra* saltmarsh *Carex flacca* sub community

- SM18 *Juncus maritimus* saltmarsh community

- SM21 *Suaeda vera-Limonium binervosum* saltmarsh community

- Drift line

- SM24 *Elymus pycnanthus* saltmarsh community

- SM25 *Suaeda vera* saltmarsh community

- SM28 *Elymus repens* saltmarsh community

- Transitions

- S21 *Scirpus maritimus* swamp and S4a *Phragmites australis* swamp

- Mud and sandflats not covered by seawater at low tide  
Intertidal mudflats and sandflats: supporting an abundance of invertebrates and various invertebrate communities
- Sandbanks slightly covered by seawater all the time  
Subtidal sandbanks: supporting an abundance of invertebrates and various invertebrate communities
- Sand dunes  
Strandline, embryo and mobile dunes  
SD2 *Honkenya peploides-Cakile maritima* strandline community,  
SD4 *Elymus farctus* fore dune community,

SD5 *Leymus arenarius* mobile dune community,  
SD6 *Ammophila arenaria* mobile dune community.

- Perennial vegetation of stony banks and transitions to other communities  
SD1 *Rumex crispus-Glaucium flavum* shingle community
- Aggregations of breeding birds (Common tern)
- Aggregations of non-breeding wintering and passage migration birds (knot, oystercatcher, dunlin, bar-tailed godwit, grey plover, redshank, curlew, turnstone, sanderling, ringed plover, pink-footed goose and shelduck)

There may be interaction between the Coastal Access proposals and the designated features listed below. These features of the SSSI are **NOT** features of any of the European sites, and the impact of the coastal access proposals are considered here.

- Higher plant assemblage of nationally scarce plants: (*Aliium scorodoprasum*, *Atriplex longipes*, *Limonium humile*, *Raphanus maritimus*)  
Sensitivities: Trampling, nutrient enrichment by dogs, changes to grazing management due to dogs disturbing livestock.

The impact of our proposals on sand dune, vegetated shingle and saltmarsh are outlined in the HRA. We concluded that there will not be a significant increase in trampling of these habitats as a result of the proposals. Therefore the species in this assemblage will not be affected by the proposals.

- Breeding bird assemblage: breeding birds characteristic of saltmarsh  
Occurring: mid-March to mid-July. Sensitivities: Disturbance can lead to eggs or chicks chilling, trampling of nests, eggs and chicks, or direct predation of nest or young by dogs. There is also a risk of increased predation of eggs and chicks, due to adults being disturbed from the nest leaving the nest more vulnerable to predation.

The impact of the proposals on the breeding bird assemblage are described below:

*All data about breeding birds in the table below is from the 2016 breeding bird survey [REF.1].*



**Table 4a. Areas where there is a low risk of impact on ground nesting birds:**

Location Cross reference to the Coastal Access Report	Location & species breeding	Existing recreational use in the areas used by these species	Risk of impact of proposals on ground nesting birds.
	Existing disturbance to breeding birds	Predicted change in levels and patterns of use in the areas used by these species	
<b>Overton to Colloway Pool</b> Report SDC3: Ocean Edge Caravan Park, Heysham to Carlisle Bridge, Lancaster. (Report maps SDC 3d to 3h, and Directions maps SDC 3D)	Peggymarsh Pool: 1 pair of oystercatcher, 1 pair redshank Heaton Field: lapwing breeding Colloway Marsh: 2 pairs curlew, 1 pair eider, 4 pairs lapwing, 6 pairs oystercatcher, 3 pairs redshank. Colloway Marsh is one of the least disturbed marshes on the Lune. It historically held a tern colony. Lades Marsh: 2 pairs oystercatcher, 4 pairs redshank.	From Overton there is an existing public footpath around the coast to Bazil Point and Fiskes Point. From Fiskes Point to Colloway Pool there are no obvious walked routes along the coast at present. Small numbers of local dog walkers walk on Colloway Marsh, however the surface is poached by cattle and is difficult to walk on. The proposed ECP will be aligned on public rights of way between Overton and Fiskes Point and will then follow a new route at the seaward edge of fields between Fiskes Point and Colloway Pool. <b>Trail:</b> From Overton to Fiskes Point the route follows existing PRowWs which are already used by locals. Some access improvements are proposed, including a new section of route which will avoid a very wet section of public footpath. We expect to see a small increase in use in this area. Between Fiskes Point and Yenham Lane there could be a large increase in use of the proposed ECP as the new path will link up with a PRowW, forming a pleasant circular route from Overton Village. Between Yenham Lane and Colloway Pool there will be a small increase in use of the proposed ECP. This area is reasonably remote, there are no other paths or lanes in the area connecting to the ECP so circular routes will not be created, and there are no car parks nearby. <b>Coastal margin:</b> There will be negligible change in use of the margin. The margin is unsuitable for access and access is excluded under s25A. The margin in this area is saltmarsh, and although possible to walk on, the surface is very poached by cattle, making difficult walking conditions right up to the landward edge of the marsh. After rain or high tides, the marsh is very wet and muddy. This will prevent most people from walking in the margin. The new path between Fiskes Point and Colloway Marsh is separated from the marsh by a fence and hedge, which will prevent skylining and prevent dogs from running onto the marsh	<b>Low risk</b> It is expected that there will be negligible change in levels and patterns of access to the saltmarshes used by breeding birds as a result of the proposals. The new sections of path are separated from the marsh by existing fences and hedges. The route alignment and condition of the surface of the marshes means that people and dogs are expected to stay on the ECP. Therefore there will be no additional disturbance of breeding birds as a result of the proposals.
	<b>Lancaster to Glasson</b> Report SDC4: Carlisle Bridge, Lancaster to Glasson Swing Bridge (Report maps SDC 4a to SDC 4e and Directions maps SDC 4A and SDC 4B)	Aldcliffe Marsh: 1 pair lapwing, 3 pairs oystercatcher, 4 pairs redshank, 2 pairs shelduck Stodday Marsh: 5 pairs redshank, 3 pairs shelduck Conder Marsh: 3 pairs eider, 8 pairs oystercatcher, 4 pairs redshank. Abbey Lighthouse fields: 20 pairs lapwing, 2 pairs oystercatcher.	

**Table 4b. Areas where there is a risk of impact on ground nesting birds and where mitigation is required to reduce the risk**

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species  Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
<p><b>Middleton Marsh</b></p> <p>Report SDC3: Ocean Edge Caravan Park, Heysham to Carlisle Bridge, Lancaster</p> <p>(Report maps SDC 3a, SDC 3b and SDC 3c and Directions maps SDC 3B and SDC 3G)</p>	<p>The marsh holds reasonable breeding wader populations for the area but anecdotal evidence suggests productivity is generally low.</p> <p>In 2016, 4 pairs of redshank were recorded as breeding.</p> <p>On the seaward side of Middleton Marsh, and separated from the proposed ECP by a deep creek, 2 pair of lapwing, 7 pairs of oystercatcher were recorded as breeding in 2016.</p>	<p>There is a car park at Potts Corner, just north of Middleton Marsh.</p> <p>An existing popular bridleway leads south from Potts Corner along the landward edge of Middleton Marsh. Access by walkers onto the marsh itself is fairly low, due to the uneven terrain.</p> <p>The proposed ECP will be aligned on the existing bridleway and path along the landward edge of the marsh.</p> <p><b>Trail:</b> There will be a negligible increase in levels of use between Potts Corner and Sambo's Grave; this is a combination of well-used bridleway and a busy locally promoted route. It is likely that there will be a small increase in use south of Sambo's Grave.</p> <p><b>Coastal margin:</b> Access will be restricted to most of the coastal margin under s25A as it is unsuitable or access.</p>	<p>Middleton Marsh: There is potential for access to increase in the margin on areas of Middleton Marsh which are not covered by the proposed s25A access exclusion (particularly dogs off lead running on to the marsh). This could lead to increased disturbance of breeding birds.</p>	<p>Access restrictions and exclusions are proposed under s26(3)(a) for nature conservation reasons:</p> <ul style="list-style-type: none"> <li>- A year round access exclusion on the marsh south of Potts Corner (Middleton Marsh).</li> </ul> <p>Signage and interpretation will be installed to advise people about the exclusions and to advise dog-walkers where they can exercise dogs off-lead.</p>	<p><b>Low risk</b></p> <p>The recreational disturbance study recommended that a marked trail on the saltmarsh would assist in keeping walkers to a set route and away from the saltmarsh edge.</p> <p>The proposed ECP will form a 'marked trail' as recommended by the bird disturbance report.</p> <p>The alignment of the ECP, plus access exclusions on the marsh, means that there is low risk of an increase in disturbance to breeding birds.</p>
<p><b>Heaton Marsh</b></p> <p>Report SDC3: Ocean Edge Caravan Park, Heysham to Carlisle Bridge, Lancaster</p> <p>(Report map SDC 3g and Directions maps SDC 3D, SDC 3E, SDC 3I)</p>	<p>5 pairs oystercatcher, 1 pair curlew, 3 pairs redshank</p> <p>Existing disturbance is low.</p>	<p>There are no existing walked routes in this area. Existing levels of access are very low, as the area is fairly remote with no nearby parking.</p> <p>The ECP is aligned on an embankment at the landward edge of the saltmarsh for 500m. It then turns inland on a farm track, briefly joins a public highway in Heaton and it is then aligned through a field.</p> <p><b>Trail:</b> Use of the ECP in this area is likely to be low, as it is a fairly remote section, 1.6 miles from the nearest car park at Overton (there is no parking in Heaton). No circular routes will be created, this area is likely to be used by long distance walkers travelling between Overton and Lancaster.</p> <p><b>Coastal margin:</b> The margin is unsuitable for access and access is excluded under s25A.</p>	<p>People walking along the embankment will be visible from the saltmarsh. This might cause some disturbance to birds nesting near the embankment through skylining.</p> <p>Birds are more likely to be disturbed if people have dogs with them, especially if dogs off lead run onto the saltmarsh.</p> <p>There is a private access track to pylons that leads from the ECP out into the marsh. It was a condition of SSSI consent for the track that</p>	<p>The following mitigation is proposed:</p> <ul style="list-style-type: none"> <li>i) A year round total access exclusion is proposed on the line of the track used by the electricity company. (The rest of the marsh is covered by a s25A exclusion as it is unsuitable for access).</li> <li>ii) Signage will be installed showing the ECP route and telling people that there are no access rights on the track.</li> <li>iii) Where the ECP is aligned on an embankment at Heaton Marsh coastal access rights on the trail are to be restricted so that dogs must be kept on a lead all year round.</li> </ul>	<p><b>There is a small risk that aligning the ECP on an embankment for 500m at Heaton Marsh will increase disturbance of breeding birds.</b></p> <p>This area currently has very low levels of access.</p> <p>The remoteness of this section of the trail and unsuitability of the salt marsh for walking over reduce the risk of disturbance. Conditions underfoot next to the embankment and on the marsh are difficult – the sward is heavily poached by cattle, therefore people are likely remain on the route of the ECP.</p> <p>It is not possible to fence the route of the ECP as cattle grazing the marsh need to access the embankment at high tide.</p> <p>Additional measures are included in the proposals to exclude access from an access track over the marsh, and to make it clear that the track is not available for public access. There will be a dogs on lead restriction and associated signage on the embankment, reducing the risk of dogs leaving the embankment and causing disturbance to breeding birds.</p>

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
		Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species			
			no public access would be allowed, in order to prevent disturbance to birds on the marsh. Use of this track may increase as a result of the proposals if the track were to become part of spreading room.	iv) Dogs on leads signs will be installed along the embankment.	Any small increase in disturbance as a result of the proposals is not likely to have a significant impact on populations of non-breeding waterbirds.
<p><b>Glasson Marsh</b> Report SDC 5: Glasson Dock swing bridge to Fluke Hall Lane car park, Pilling</p> <p>(Report maps SDC 5a and Directions maps SDC 5A, SDC 5B and SDC 5D)</p>	<p>1 pair lapwing, 6 pairs oystercatcher, 1 pair redshank, 2 pairs shelduck. Eider are thought to be breeding on the marsh in low numbers, and shelduck are thought to be nesting in the floodbanks and adjacent hedgerows / scrub.</p> <p>Current disturbance is low.</p>	<p>This is a popular area for walkers. The Lancashire Coastal Way follows public rights of way around the coast. Glasson Marsh is CRoW access land, but access rights are currently excluded for land management reasons.</p> <p>The proposed ECP follows the Lancashire Coastal Way, which is aligned along a public highway and bridleway landward of the marsh. This means that the marsh falls within the coastal margin.</p> <p><b>Trail:</b> Due to the surface improvements on the bridleway at Marsh Lane, which is currently extremely wet, it is expected that there will be a small increase in use as more people use this route to get from Glasson to the coast, currently there are drier inland PRoWs to use.</p> <p><b>Coastal margin:</b> Access will be restricted to most of the coastal margin under s25A and therefore levels and patterns of access are not expected to change in these areas.</p> <p>The exceptions are Chapel Hill embankment and the fields near Glasson Marsh that would fall within the coastal margin. One of the fields, near Glasson, is easily accessed via a public right of way, and this area may see a small increase in use, mainly from dog walkers.</p>	An increase in access on Chapel Hill floodbank would lead to an increase in disturbance of breeding birds on Glasson Marsh, due to skylining and dogs running onto the marsh.	<p>The following mitigation is proposed:</p> <p>i) A year round total access exclusion under s26(3)(a) for nature conservation reasons along Chapel Hill floodbank and fields to the east of Janson Pool</p> <p>ii) installation of signage explaining the restrictions and exclusions.</p>	<p><b>Low risk</b></p> <p>It is expected that there will be negligible change in access in the areas used by breeding birds as a result of the proposals. Therefore there will be no additional disturbance breeding of birds as a result of the proposals.</p>
<p><b>Plover Scar to Bank End</b> Report SDC5: Glasson Dock swing bridge to Fluke Hall Lane car park, Pilling.</p>	<p>1 pair oystercatcher, 1 pair ringed plover</p>	<p>This is a popular area for walkers. The Lancashire Coastal Way follows public rights of way around the coast. This coastal walk is well publicised online and there are specific walks leaflets and promoted routes for this area.</p> <p>The proposed ECP follows the Lancashire Coastal Way in this subsection.</p>	An increase in access on the shingle / rocky foreshore in this area could lead to an increase in disturbance to breeding birds.	<p>The following mitigation is proposed:</p> <p>i) A year-round total access exclusion under s26(3)(a) for nature conservation reasons on the rocky skears around Plover Scar</p>	<p><b>Low risk</b></p> <p>There will be no new access rights created in the areas used by breeding birds. Therefore there will be no additional disturbance of breeding birds as a result of the proposals. The foreshore is rocky in this area and not particularly easy to walk on, the elevated ECP will provide a better all-round walking experience.</p>



Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species  Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
(Report maps SDC 5b and SDC 5c and Directions maps SDC 5C and SDC 5E)		<p><b>Trail:</b> There will be negligible change in use of the trail in this popular area.</p> <p><b>Coastal margin:</b> Access will be restricted to most of the coastal margin under s25A and therefore access is not expected to change in these areas.</p> <p>The exception is the shingle / rocky foreshore which is not covered by s25A.</p>		ii) installation of signage explaining the restrictions and exclusions	
<p><b>Cocker Bridge to eastern end of Lane Ends Amenity Area</b></p> <p>Report SDC5: Glasson Dock swing bridge to Fluke Hall Lane car park, Pilling.</p> <p>(Report maps SDC 5d, SDC 5e, SDC 5f, SDC 5g, SDC 5h and SDC 5i and Directions maps SDC 5C and SDC 5F)</p>	<p><b>Cockerham Marsh:</b> 2 pairs lapwing, 3 pairs oystercatcher, 1 pair shelduck.</p> <p><b>Wrampool Marsh:</b> 1 pair eider, 1 pair lapwing, 1 pair oystercatcher, 2 pairs redshank, 1 pair shelduck.</p> <p><b>Wrampool Bridge:</b> 1 pair lapwing, 2 pairs oystercatcher, 1 pair redshank, 1 pair shelduck.</p> <p><b>Cockerham Sheep Pens:</b> 2 pairs linnet.</p> <p><b>Wrampool Brook:</b> 1 pair redshank.</p> <p><b>Cockerham Out Marsh:</b> 1 pair eider, 8 pairs lapwing, 13 pairs oystercatcher, 4 pairs redshank, 1 pair shelduck, 2 pairs linnet, 1 pair sedge warbler, 4 pairs shelduck.</p> <p><b>Millhouse Pool:</b> 1 pair lapwing, 1 pair oystercatcher, 1 pair redshank.</p> <p><b>Fields and embankment at</b></p>	<p>Current access provision along the coast from Cocker Bridge to Fluke Hall is poor.</p> <p>The Lancashire Coastal Way in this area is aligned over a mile inland from the coast on existing public rights of way and single track roads from Cocker Bridge through to Lane Ends Amenity Area. A flood embankment runs along the coast from Cocker Bridge to Lane Ends but there is no legal right of access along the embankment, and although there is some unauthorised use by walkers, this is very low.</p> <p>The England Coast Path will follow a new path from Cocker Bridge to Lane Ends Amenity Area along the landward side of the existing flood embankment. This area currently has low levels of access.</p> <p><b>Trail:</b> There will be a large increase in use of the ECP.</p> <p><b>Coastal margin:</b> Access will be excluded under s25a from most of the saltmarsh and flats in this subsection as they are unsuitable for access.</p>	<p>The embankment and saltmarsh between Cocker Bridge and Lane Ends Amenity Area will form part of the coastal margin and there is the potential for people to access the top of the embankment from the trail in order to get better views out across the Bay. This would cause increased disturbance to birds breeding next to the embankment and to birds feeding on the marsh, due to skylining and dogs off lead running onto the marsh.</p> <p>There is a risk that birds breeding in the fields landward of the embankment could be disturbed by dogs running into the fields.</p> <p>In most locations landward of the floodbank there is a ditch and boundary fence which would prevent dogs running into the fields, but there are</p>	<p>Coastal access rights are to be excluded all year round on the existing flood embankment seaward of the trail under s26(3)(a)</p> <p>Two new sections of stock proof fencing will be installed on the seaward side of the route for a total length of approximately 3km between Cocker Bridge and Lane Ends Amenity Area. These two new sections of fencing will help to guide people along the trail within a fenced corridor and prevent people from straying off the line of the ECP and accessing the top of the flood embankment</p> <p>Coastal access rights on the trail are to be restricted so that dogs must be kept on a lead.</p> <p>Signage will also be installed at key locations to advise people about the restrictions and wildlife.</p> <p>An on-site event when the route opens, promoted to local people, with the aim of explaining the new access arrangements, restrictions and exclusions and raising awareness of the sensitive wildlife.</p>	<p><b>Low risk</b></p> <p>The combination of route alignment behind the embankment, access exclusions on the embankment, fencing and signage means there will not be an increase in access in the majority of areas used by breeding birds.</p> <p>The dogs on leads restriction plus signage is designed to reduce the risk of dogs running through open gates into the fields behind the embankment.</p> <p>The trail itself does go through some breeding bird territories.</p> <p>Aligning the ECP through the territories won't, in itself, cause a loss of habitat. The habitat remains available for feeding and foraging. The path will become unavailable as nest sites but the size of this in comparison to the available habitat is minimal. The alignment is unlikely to cause a decline in the numbers of breeding birds.</p>

Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species  Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
	<p><b>Braides (east end of the embankment):</b> 1 pair oystercatcher, 2 pairs lapwing, 1 pair redshank. Breeding linnet also recorded. (2016 survey).</p> <p>A survey by the RSPB in 2017 identified at least two established Redshank territories in the ditch surrounding Braides fields along with possible breeding curlew.</p> <p>These fields are in an HLS scheme for breeding waders.</p>		places where the ditch can be crossed.		
<p><b>Eastern end of Lane Ends Amenity area to Fluke Hall Lane car park, Pilling.</b></p> <p>Report SDC5: Glasson Dock swing bridge to Fluke Hall Lane car park, Pilling</p> <p>(report maps SDC 5g, SDC 5h and SDC 5i and Directions maps SDC 5C and SDC 5F)</p>	<p><b>Pilling Marsh mid:</b> 1 pair lapwing, 2 pairs oystercatcher, 9 pairs redshank.</p> <p><b>Pilling Marsh West:</b> 2 pairs oystercatcher.</p> <p><b>Lane Ends Marsh:</b> 1 pair lapwing, 2 pairs redshank.</p> <p><b>Pilling Marsh:</b> 1 pair lapwing, 1 pair oystercatcher, 4 pairs redshank.</p>	<p>Public access is currently provided within the Lane Ends Amenity Area – the point at which the public are also able to get access to part of the existing flood defence embankment west of the amenity area. This amenity area has car parking on two levels, with its upper level providing good views out over the bay. This facility is well used, especially by members from the local community who appear to use it primarily as a popular dog walking and exercise area. Access west along the embankment towards Fluke Hall is currently provided under an access agreement between the Environment Agency and Lancashire County Council, but this only provides a right of access along part of the embankment, for part of the year (no access between Boxing Day and Maundy Thursday) and does not permit people to take dogs with them. This agreement also permits people to access the sea defence bank via 2 tracks that join up with the inland road at Broadfleet Bridge and along Fluke Hall Lane. Most visitors appear to ignore the current restrictions that are in place. An existing right of access for people who reside in the Parish of Pilling is also provided, heading immediately out of Lane Ends Amenity Area onto the marsh and flats.</p>	<p>There is a risk of dogs off lead running onto the marsh and disturbing breeding birds.</p>	<p>Coastal access rights are to be excluded all year round on the existing flood embankment seaward of the trail under s26(3)(a).</p> <p>A 'dogs on leads' restriction is proposed on the embankment (excluding the length of the trail within the Lane Ends Amenity Area).</p> <p>In order to increase compliance with the proposed restrictions and exclusions, the following measures are proposed for Lane Ends Amenity Area:</p> <p>Clear signage, explaining where people can walk, where dogs should be on a lead and where they can exercise dogs off-lead;</p> <p>Improved interpretation and information about the importance of the area for wildlife;</p>	<p><b>Low risk</b></p> <p>Access is excluded under s25A from the saltmarsh, where birds breed. The 'dogs on leads' restriction on the embankment, plus signage, will reduce the risk of dogs roaming onto the marsh and causing disturbance to breeding birds.</p> <p>There will not be any significant changes in access in the areas used by breeding birds as a result of the proposals.</p> <p>Therefore there is a low risk of additional disturbance of breeding birds as a result of the proposals.</p>



Location Cross reference to the Coastal Access Report	Location & species breeding  Existing disturbance to breeding birds	Existing recreational use in the areas used by these species	Likely effects without mitigation	Mitigation incorporated into this proposal to manage risk	Risk of impact of proposals (including mitigation) on ground nesting birds.
		Predicted change in levels and patterns of use (as a result of the proposals) in the areas used by these species			
		Use of most of the coastal margin by pedestrians is low in this area, apart from the area of margin around Fluke Hall which is used by walkers and dog walkers.		An on-site event when the route opens, promoted to local people, with the aim of explaining the new access arrangements, restrictions and exclusions and raising awareness of the sensitive wildlife.	
		<p>From Lane Ends Amenity Area to Fluke Hall Lane, the proposed ECP will be aligned on the top of the sea defence embankment.</p> <p><b>Trail:</b> There is likely to be an increase in use of the trail although we expect that most people who are currently using the embankment are unlikely to change their patterns of use.</p> <p><b>Coastal margin:</b> Access will be excluded under s25A from most of the saltmarsh and flats in this subsection as they are unsuitable for access. It is possible that there will be an increase in dogs off-lead roaming over the coastal margin from the ECP.</p>			

**Conclusion:** With the mitigation described in place, the proposals will not have a significant impact on breeding ground nesting birds within the SSSI.

## **Establishment works**

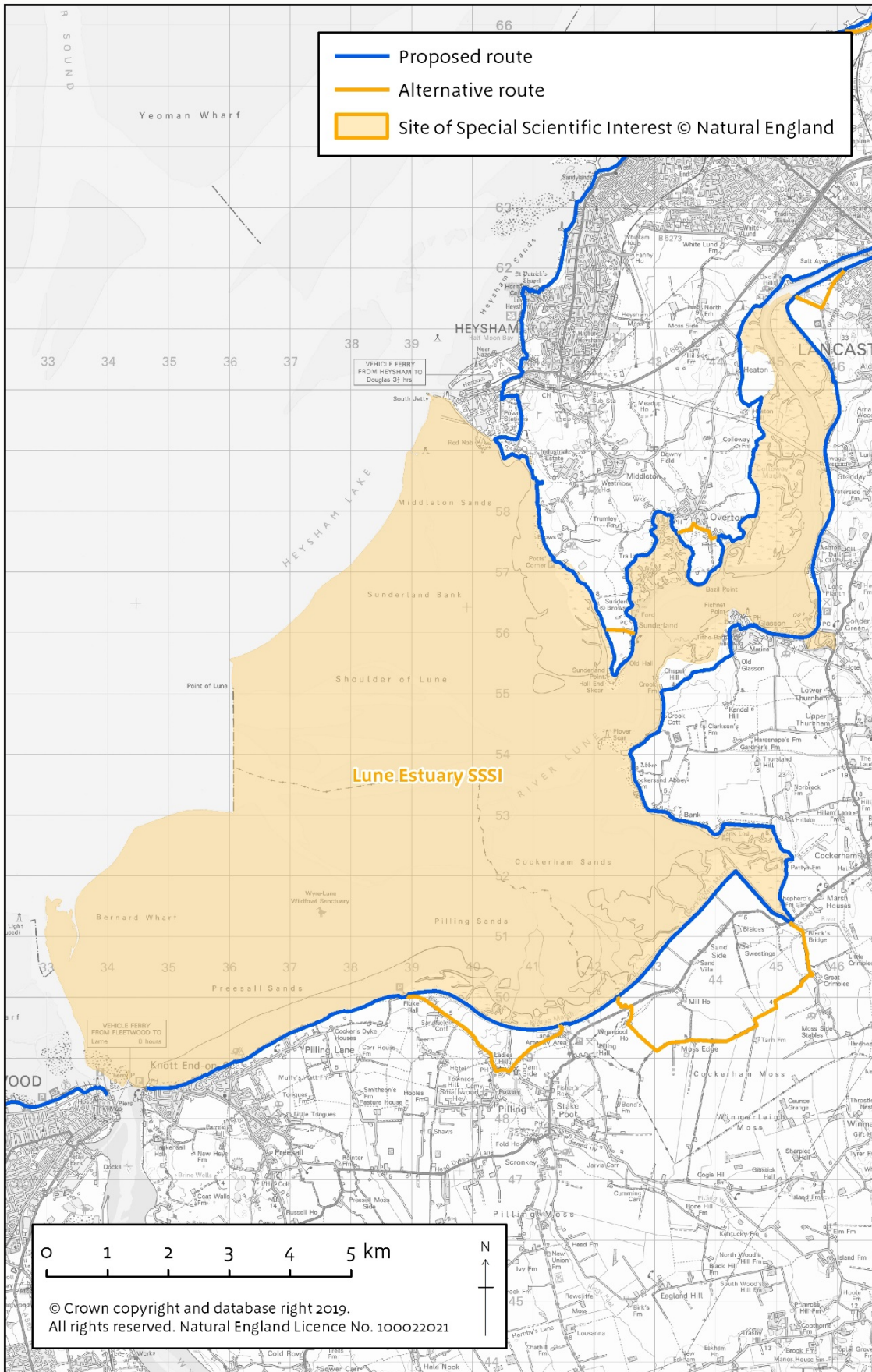
Is SSSI assent needed to implement any specific proposals for establishment works? **Yes**

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

- Works in areas where birds breed should take place outside of the breeding season.
- Works close to areas where birds roost should not take place for 2 hours either side of high tide.
- For works on saltmarshes, access routes, storage of materials and types of vehicles used must be agreed with NE, in order to reduce the damage to the habitat.
- Vehicles and machinery will be refuelled off site.

Where necessary, Lancashire 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.

**Map showing Lune Estuary SSSI and proposed route of the ECP**



# Assessment of coastal access proposals on Cockerham Marsh SSSI

Is this site also part of a European site? **No**

There may be interactions between the Coastal Access proposals and the designated features listed below.

- Natterjack toad *Epidalea calamita*  
Sensitivities: Injury or death caused during installation of infrastructure, or by dogs running around the shallow edges of ponds.

## Current situation

There are no paths through the SSSI and current levels of access are very low.

There are no habitat features notified for this site but the habitat 'Fen, marsh and swamp' supports the natterjack toads. They forage on the short grazed grassland in the fields, embankment and along the strandline.

The natterjack toad population is extinct on this site. No toadlet production has been observed since 1982. The last calling male was recorded in 1988 and two females were seen in 1990, but then or shortly afterwards the population must have become extinct. Natterjack toad spawn and tadpoles were released into the pools each year between 2002 and 2004. Unfortunately, no adult toad, not even a calling male, has been seen or heard of since 2004.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 5: Glasson Dock Swing Bridge to Fluke Hall Lane car park, Pilling (Report map SDC 5e).**

The proposed route of the England Coast Path goes through Cockerham Marsh SSSI in a corridor through grassland between a ditch and the embankment. There will be a fence between the path and the embankment.

As the population of natterjacks is extinct, the proposed route will not affect this feature. If natterjacks are reintroduced in the future, the fencing along the embankment would provide protection, and further fencing between the ditch and the path could be erected if required, to keep dogs out of the ditch, without affecting the proposed route.

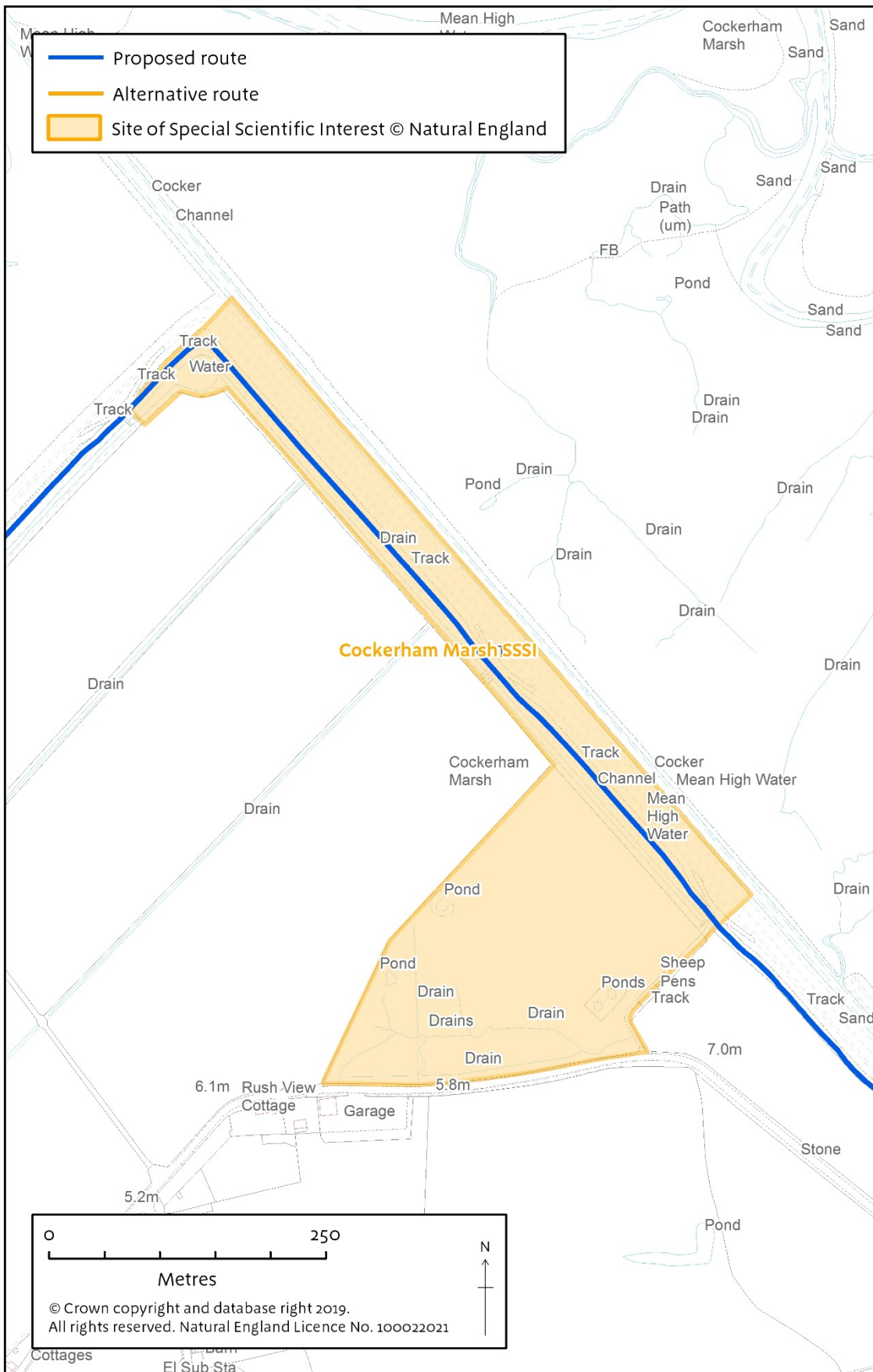
## Establishment works

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

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Lancashire 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.

**Map showing Cockerham Marsh SSSI and proposed route of the ECP**





# Assessment of coastal access proposals on Wyre Estuary SSSI

Is this site also part of a European site? **Yes**

There may be interactions between the Coastal Access proposals and the designated features listed below. These features of the SSSI are also features of Morecambe Bay and Duddon Estuary SPA, Morecambe Bay SAC and / or Morecambe Bay Ramsar. An assessment of the impacts of our proposals on these features, and any mitigation required, is undertaken in the HRA published alongside our coastal access proposals.

- Saltmarsh

- Pioneer saltmarsh

- SM6 *Spartina anglica* saltmarsh community

- SM8 Annual *Salicornia* saltmarsh community

- SM9 *Suaeda maritima* saltmarsh community

- SM12b Rayed Aster *Aster tripolium* stands

- Low-mid marsh

- SM10 *Puccinellia-Salicornia-Suaeda* transitional low marsh community

- SM13a *Puccinellia maritima* saltmarsh community

- Mid-upper marsh

- SM13b *Puccinellia maritima* saltmarsh, subcommun. *Glaux maritima*

- SM13c *Puccinellia maritima* saltmarsh, subcommun. *Limonium vulgare* – *Armeria maritima*

- SM13f *Puccinellia maritima* saltmarsh, subcommun. *Spartina maritima*

- SM14a *Atriplex portulacoides* saltmarsh community

- SM14c *Atriplex portulacoides* saltmarsh subcommun. *Puccinellia maritima*

- SM15 *Juncus maritimus-Triglochin maritima* saltmarsh community

- SM16a *Festuca rubra* saltmarsh sub-community *Puccinellia maritima*

- SM16b *Festuca rubra* saltmarsh sub-community *Juncus gerardii*

- SM16c *Festuca rubra* saltmarsh sub-community *Glaux maritima*

- SM16d *Festuca rubra* saltmarsh sub-community *Festuca rubra*

- SM 18 *Juncus maritimus* saltmarsh community

- Drift-line

- SM24 *Elytrigia pycnanthus* saltmarsh community

- SM28 *Elytrigia repens* saltmarsh community

- **Aggregations of non-breeding birds wintering and passage migration birds:** (black-tailed godwit, turnstone, teal, lapwing, golden plover, oyster catcher, redshank and dunlin)

There may be interaction between the Coastal Access proposals and the designated features listed below. These features of the SSSI are NOT features of any of the European sites, and the impact of the coastal access proposals are considered here.

- Swamp vegetation and transitions to brackish and freshwater habitats: S4a *Phragmites australis* swamp/ reedbed S21 *Scirpus maritimus* swamp S28 *Phalaris arundinacea* tall-herb fen.

The proposed ECP uses the Wyre Ferry between Knott End and Fleetwood, so the River Wyre itself is not affected by our proposals. Unit 1 of the River Wyre SSSI, which covers the intertidal area from Fleetwood lifeboat station to Rossall, will fall within the coastal margin. This feature is not found within Unit 1, and is therefore not affected by the proposals.

## **Establishment works**

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

If yes, describe any special conditions that have been identified concerning how or when the works are to be carried out:

Where necessary, Lancashire 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 Marine Conservation Zones (MCZ)**

### **Assessment of coastal access proposals on Wyre Lune MCZ**

Is this site also part of a European site?      **Yes**

This site is designated for smelt, which are not a feature of the European sites.

Smelt have been recorded in the Wyre-Lune MCZ in Environment Agency surveys since 2004 with historical reference to populations dating back to 1981 in the Wyre (National Anglers' Council; in Maitland 2003) and 1963 in the Lune (K. Denham; in Maitland 2003). The Environment Agency database has 21 smelt records of fish of various lengths from between 2004 and 2014 for the Wyre-Lune. The size range captured suggests localised spawning and recruitment may have occurred within the River Wyre in 2005 and 2006 with records of juvenile smelt as small as 33 millimetres recorded. While smelt spawning sites have not been formally documented, anecdotal records from the Environment Agency indicate that 20 years ago smelt spawned in large numbers below the weir at St Michaels on Wyre, which marks the tidal limit (Dent, Environment Agency 2015, pers. comm.).

Smelt could be affected by changes in access. They are sensitive to disturbance by dogs running in shallow water while the smelt are spawning on gravel banks.

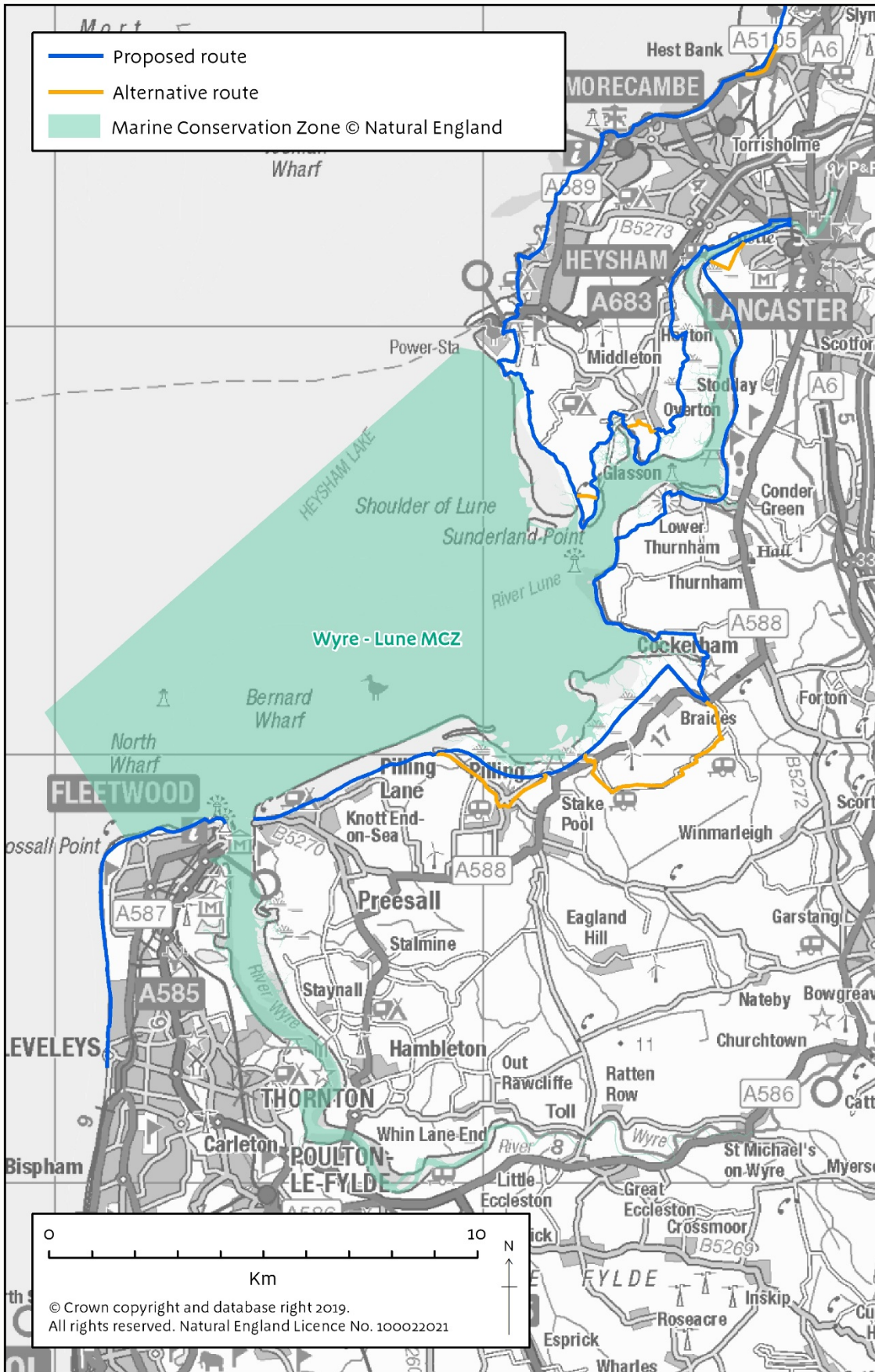
The River Wyre is unaffected by our proposals as it is outside of the project area. In the Lune Estuary, the proposals are not likely to increase access in any areas with suitable gravel banks for spawning. Therefore the proposals will not have an impact on smelt.

#### **Conclusion**

This feature is unaffected by the proposals.



Map showing Wyre Lune MCZ and proposed route of the ECP





## **Assessment of coastal access proposals on Limestone Pavement Orders (LPO)**

Limestone Pavement Orders (LPOs) afford statutory protection for limestone pavements under the Wildlife and Countryside Act 1981. An Order, made by the Secretary of State or a local planning authority, prohibits the removal or disturbance of limestone within the designated area, after notification of its importance by Natural England or the Natural Resources Wales. Limestone pavements are identified as a priority habitat in Annex I of the EC Habitats Directive.

Five LPOs are within the project area. The impact of proposals on each site is given below.

## **Assessment of coastal access proposals on Old Park and Waitham Wood LPO**

Is this site or feature also part of a European site? **No**

### **Current situation**

There are existing permissive routes within the LPO, which are available to permit holders and people staying at the caravan park.

### **Risk analysis**

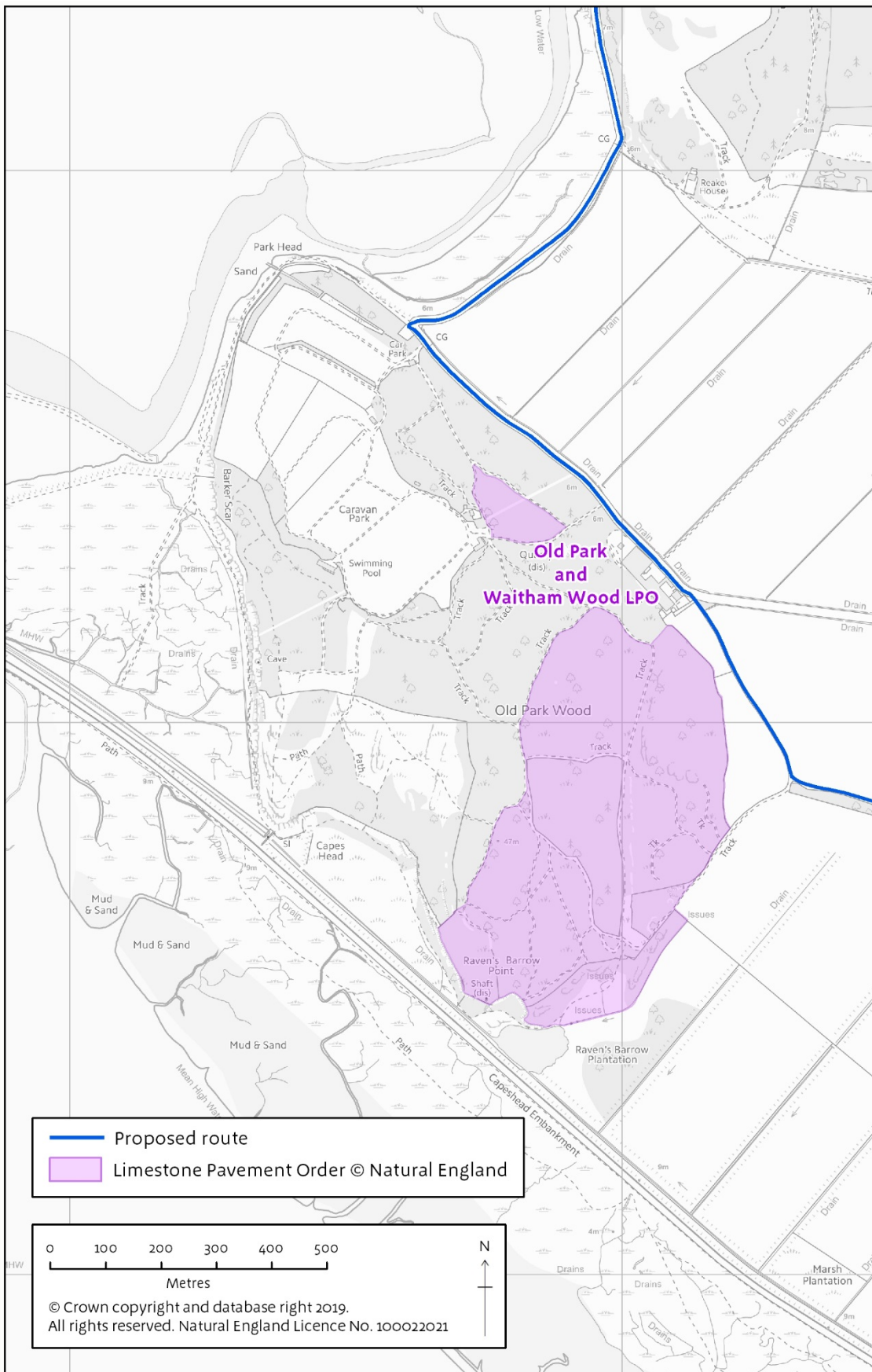
**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS5 Greenodd Footbridge to Kents Bank, map number SCS 5d.**

Old Park and Waitham Wood Limestone Pavement Order would fall within the coastal margin.

The permissive routes are not signposted from the ECP, and will not be promoted to users of the ECP. The area of LPO adjacent to the ECP is fairly dense woodland and it is not easy to walk through. It is not expected that access in the LPO will increase in this area as a result of our proposals, and therefore numbers of people walking on the limestone pavement will not increase.

No infrastructure or establishment work is proposed in this area, and therefore the proposals will not have an impact on the limestone pavement.

**Map showing Old Park & Waitham Wood LPO and proposed route of the ECP**



# Assessment of coastal access proposals on Humphrey Head LPO

Is this site or feature also part of a European site? **No**

## Current situation

Humphrey Head is a Cumbria Wildlife Trust Reserve. There are permissive waymarked routes around the reserve and through the area covered by a Limestone Pavement Order.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 5 Greenodd Footbridge to Kents Bank, maps SCS 5k.**

The proposed ECP will follow existing permissive routes. A small increase in use is expected.

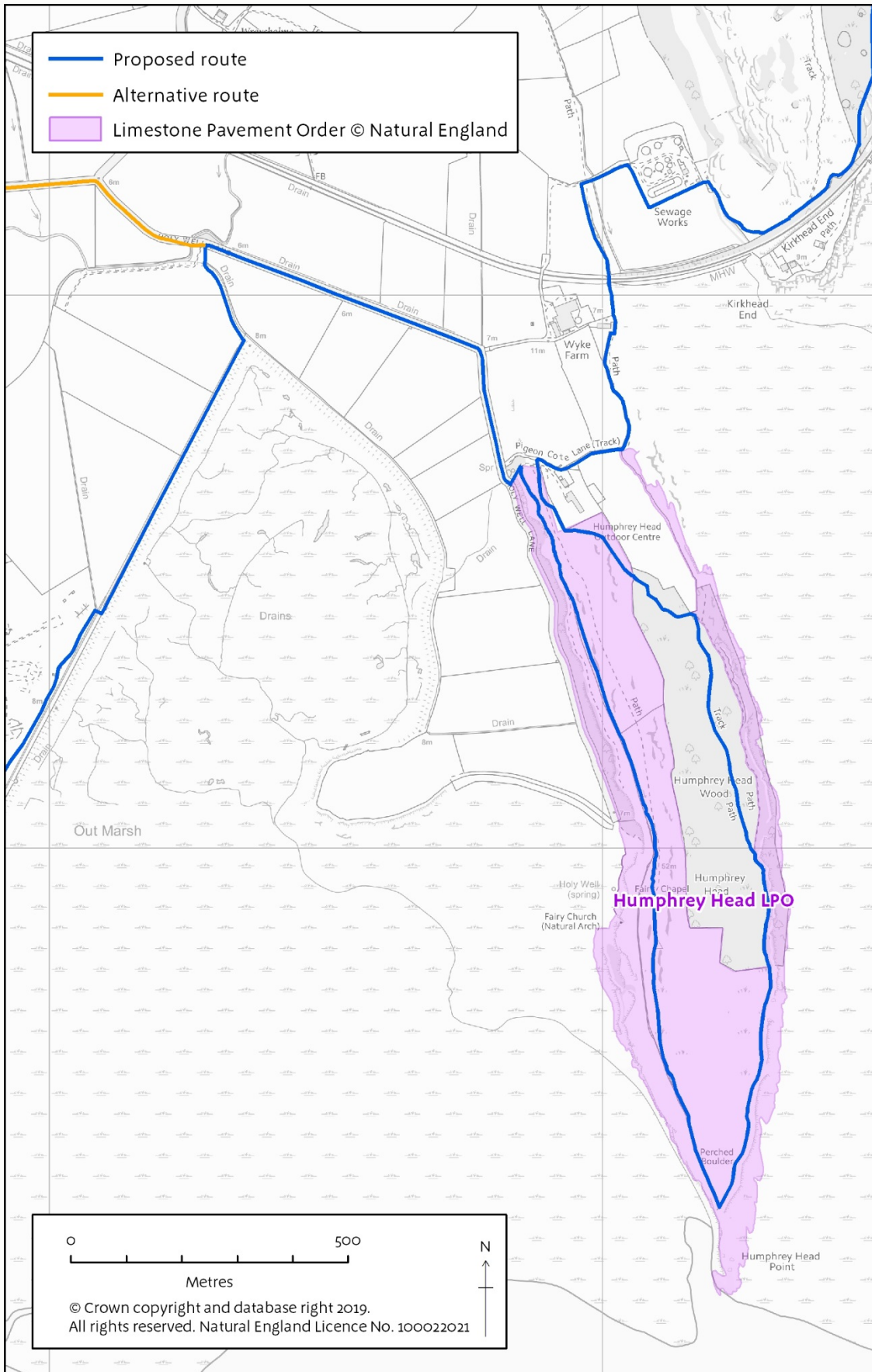
The path will be established with minimal infrastructure. Through the woodland, to repair an existing path, windblown trees will be removed, plus a section of the benching and revetment, 8m section of flagstone, surfacing on the existing path.

We are satisfied that the proposed access management infrastructure can be installed without causing the removal or disturbance of limestone pavement in this area.

## Establishment works

During establishment stage, a further check will be made that the terms of the Limestone Pavement Order will be fully complied with prior to carrying out works on site.

**Map showing Humphrey Head LPO and proposed route of the ECP**



# Assessment of coastal access proposals on Wartbarrow and Kirkhead LPOs

Is this site or feature also part of a European site? **No**

## Current situation

There are currently low levels of access within the LPO.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 5 Greenodd Footbridge to Kents Bank, map SCS 5I.**

The proposed ECP is aligned through the seaward edge of the LPO, through grassland habitat. It is not aligned over any areas of visible limestone pavement. There will be a large increase in use on the line of the ECP.

30m of stone aggregate surfacing, replacement field gates, new kissing gates and signage are required in the LPO.

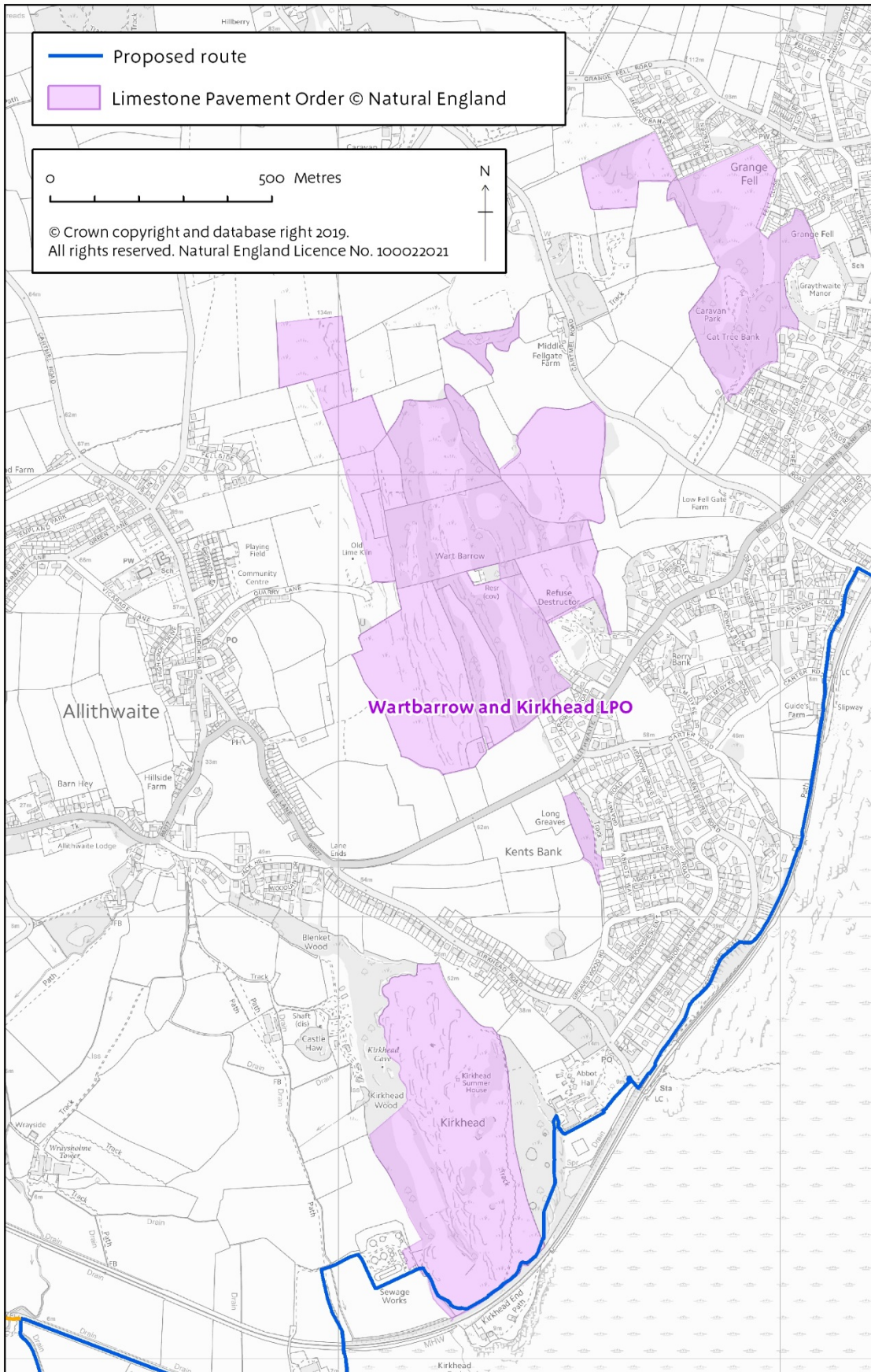
We are satisfied that the proposed access management infrastructure can be installed without causing the removal or disturbance of limestone pavement in this area.

## Establishment works

During establishment stage, a further check will be made that the terms of the Limestone Pavement Order will be fully complied with prior to carrying out works on site.



# Map showing Wartbarrow and Kirkhead LPOs and proposed route of the ECP



# Assessment of coastal access proposals on Heald Brow LPO

Is this site or feature also part of a European site? **No**

## Current situation

There are popular public rights of way and other paths through the LPO.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report map SDC 1a and SDC 1b).**

The ECP is aligned through the LPO for approx. 1.5km, between Gibraltar Farm (Silverdale) and Quaker's Stang, on existing paths and with some new paths being created. In places, the level of access is expected to increase as a result of the proposals, and some large pieces of infrastructure are proposed (eg a set of plastic steps bolted into the rock at Jack Scout, long backfilled steps at Heald Brow).

We are satisfied that the proposed access management infrastructure can be installed without causing the removal or disturbance of limestone pavement in this area.

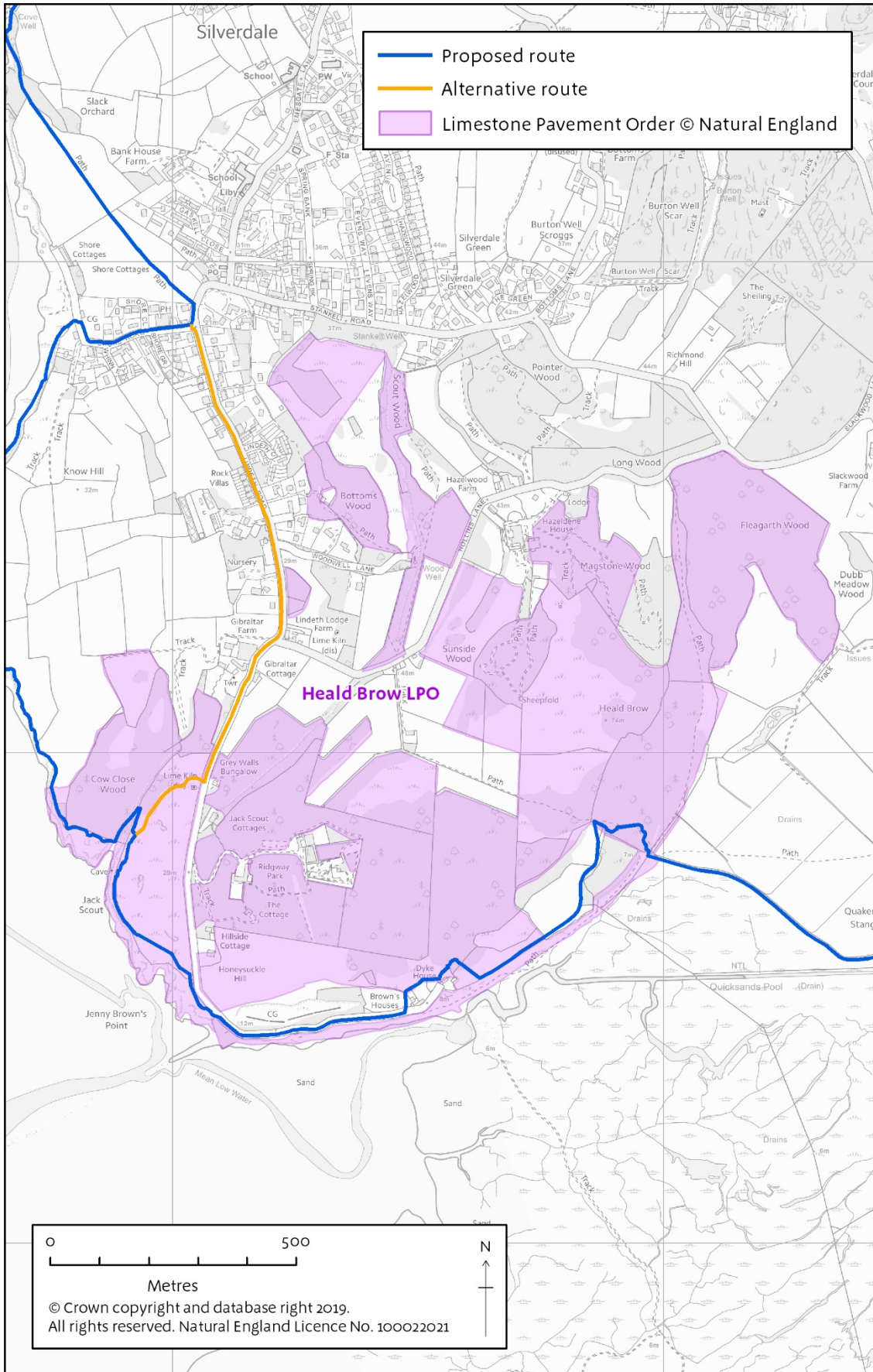
## Establishment works

During establishment stage, a further check will be made that the terms of the Limestone Pavement Order will be fully complied with.

Planning permission is required for the alignment through part of Gibraltar Farm because of the proposed works within a Limestone Pavement Order.

Planning permission may be required for other sections through Heald Brow LPO, particularly the new steps at Jack Scout and steps on the public footpath near Heald Brow.

**Map showing Heald Brow LPO and proposed route of the ECP**





# Assessment of coastal access proposals on Warton Crag and Grisedale Wood LPO

Is this site or feature also part of a European site? **No**

## Current situation

There is a network of paths through the LPO.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report maps SDC 1c and SDC 1d).**

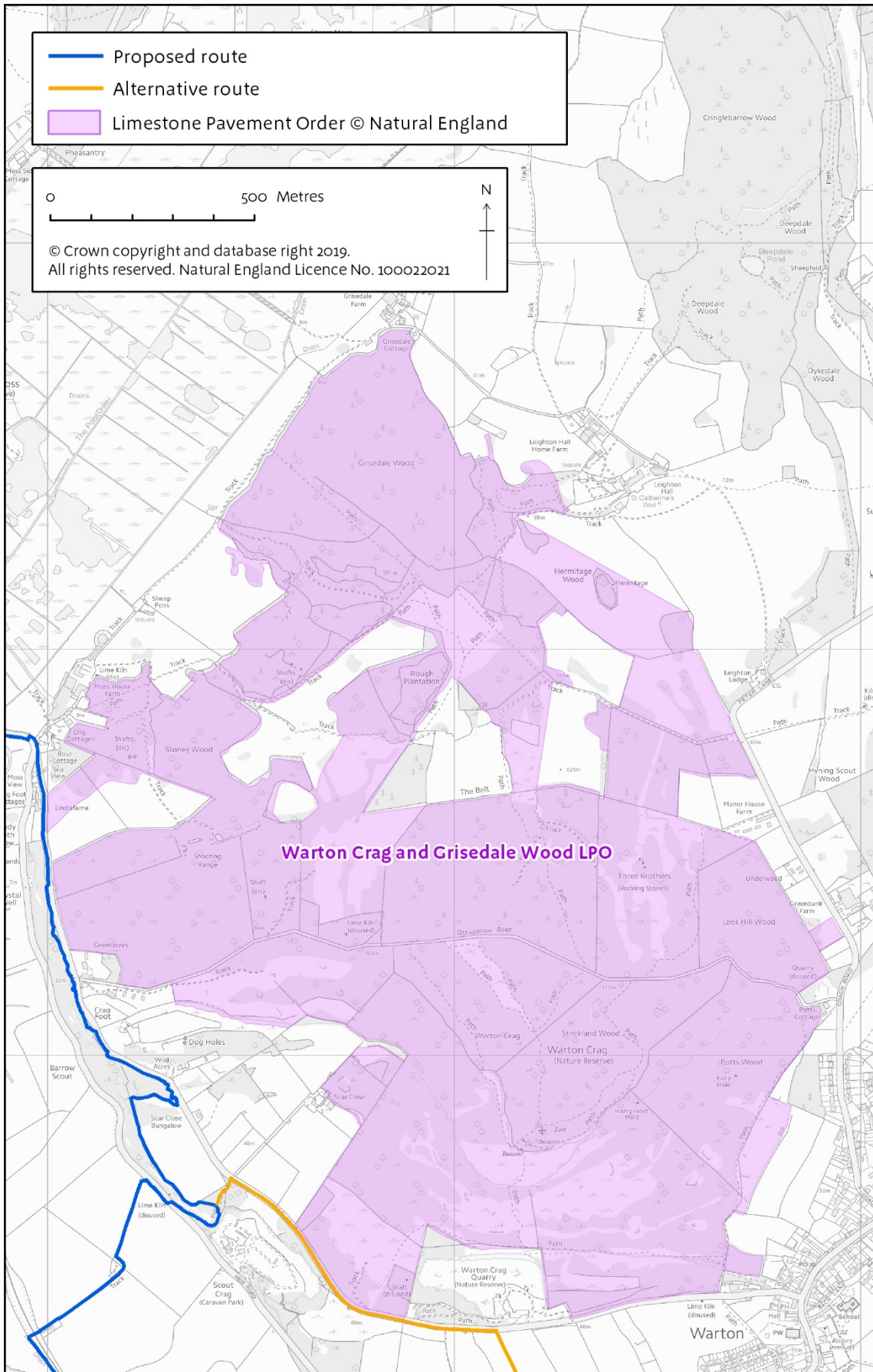
The ECP will be aligned on a new path through the seaward edge of the LPO for approx. 320m. 200m of fencing, plus signage and kissing gates are proposed in the LPO.

We are satisfied that the proposed access management infrastructure can be installed without causing the removal or disturbance of limestone pavement in this area.

## Establishment works

During establishment stage, a further check will be made that the terms of the Limestone Pavement Order will be fully complied with prior to carrying out works on site.

**Map showing Warton Crag and Grisedale Wood LPO and proposed route of the ECP**





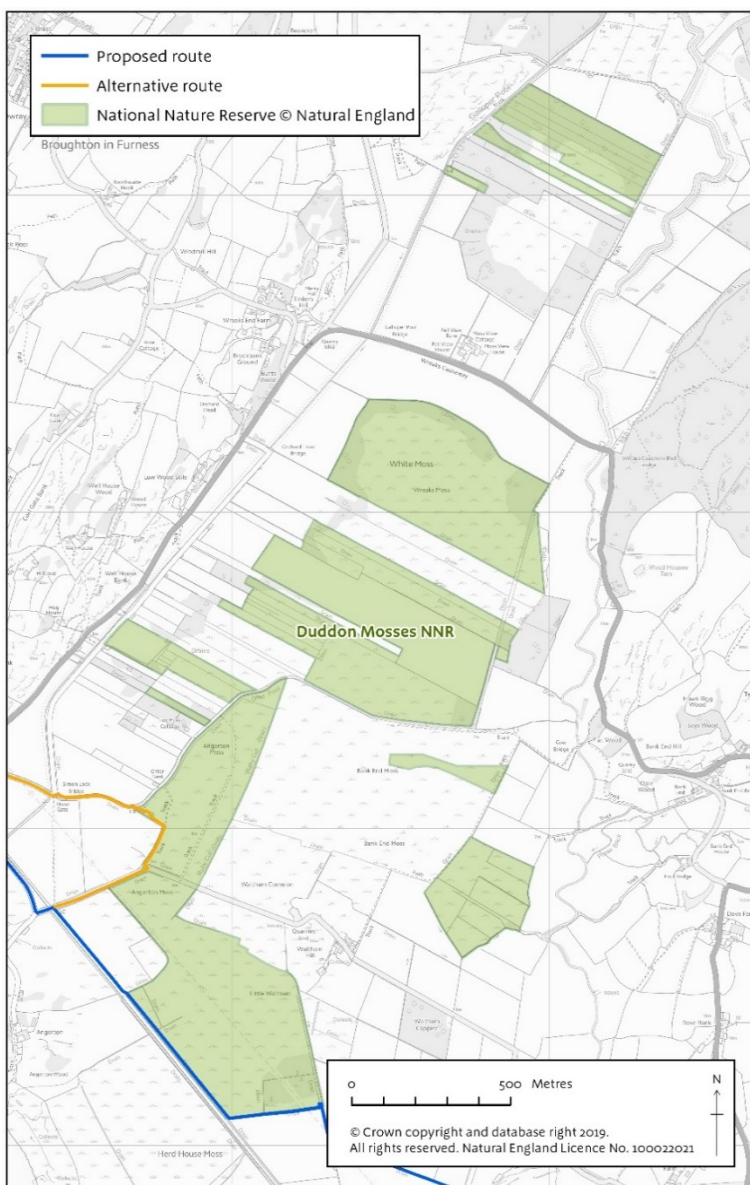
# Assessment of coastal access proposals on National Nature Reserves (NNR)

## Assessment of coastal access proposals on Duddon Mosses NNR

Is this site or feature also part of a European site? **Yes**

This site is part of Duddon Mosses SAC and SSSI and the possible impacts of the access proposals on these sites are assessed in the Duddon Mosses HRA (a separate document) and in the Duddon Mosses SSSI assessment (part of this document).

### Map showing Duddon Mosses NNR and proposed route of the ECP

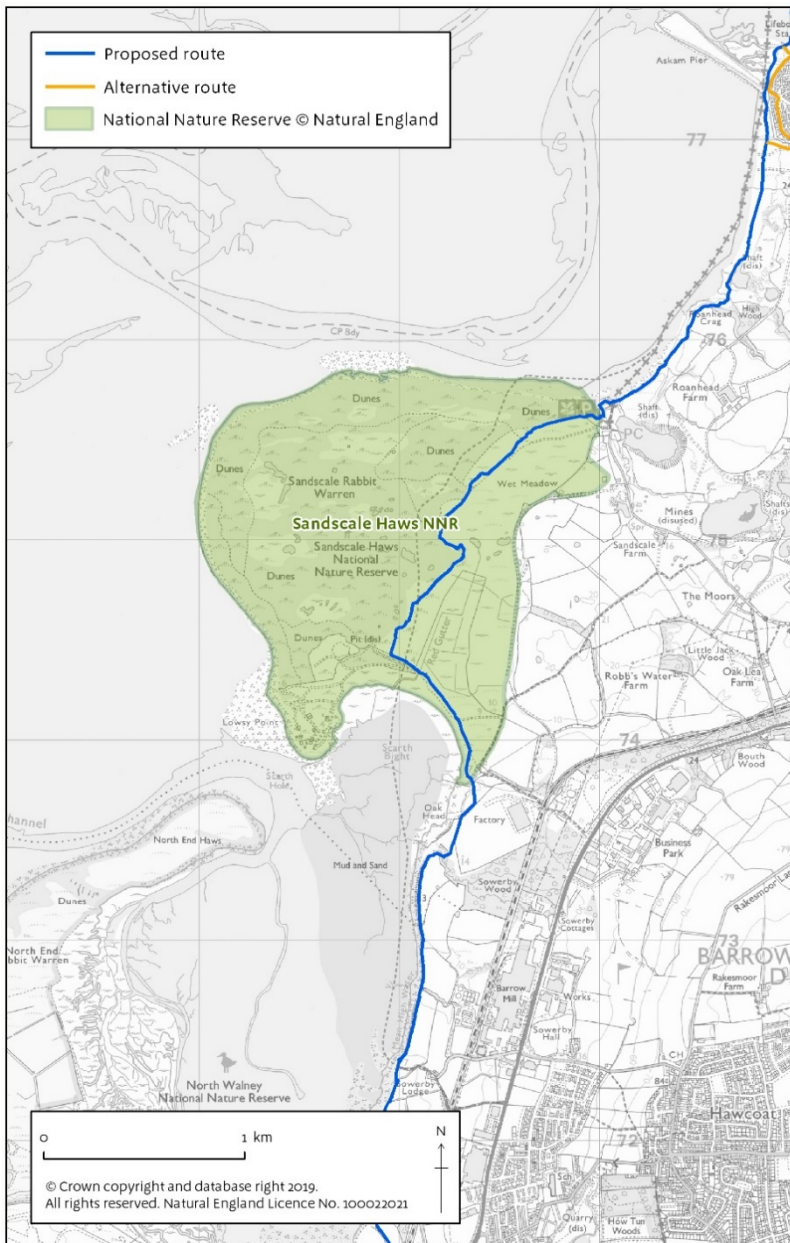


# Assessment of coastal access proposals on Sandscale Haws NNR

Is this site or feature also part of a European site? **Yes**

This site is part of Morecambe Bay and Duddon Estuary SPA, Morecambe Bay SAC, Duddon Estuary Ramsar and Duddon Estuary SSSI. The impact of the proposals on the features of the NNR are assessed in the Morecambe Bay and Duddon Estuary HRA and in the Duddon Estuary SSSI assessment in this document.

## Map showing Sandscale Haws NNR and proposed route of the ECP



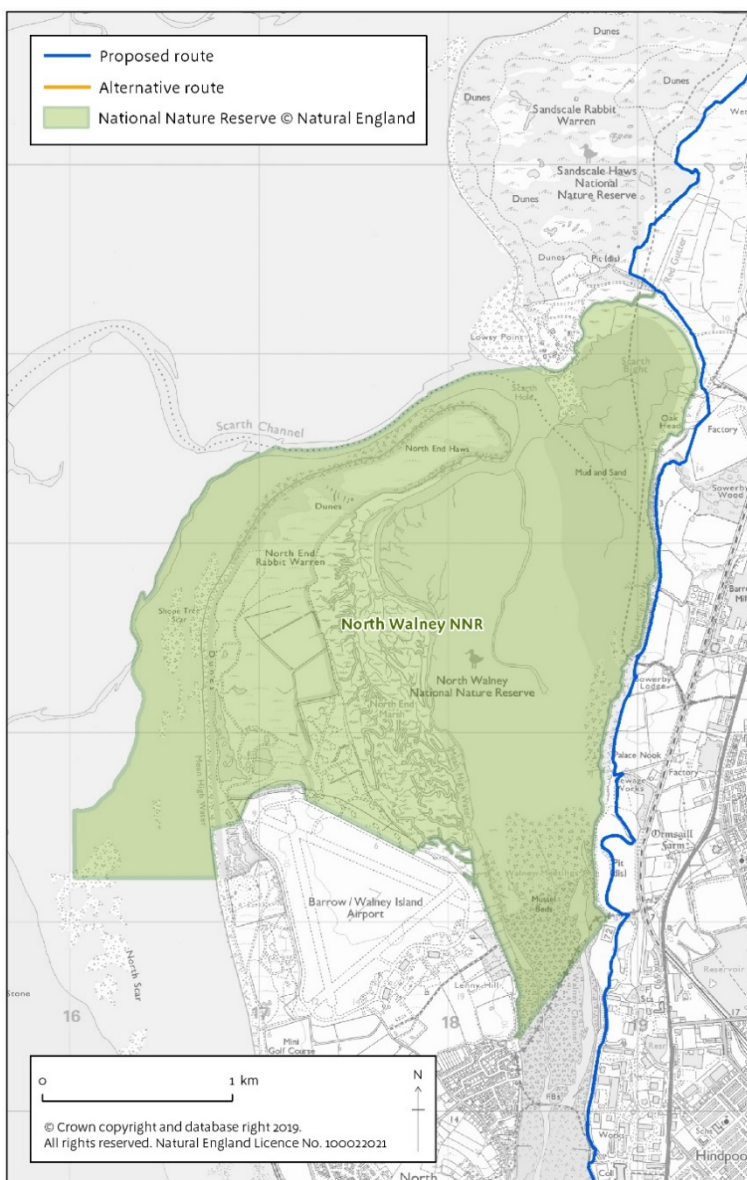
# Assessment of coastal access proposals on North Walney NNR

Is this site or feature also part of a European site? **Yes**

Most of the NNR is outside the project area, however the part of it that covers the Walney Channel falls within the coastal margin.

This site is part of Morecambe Bay and Duddon Estuary SPA, Morecambe Bay SAC, Duddon Estuary Ramsar and Duddon Estuary SSSI. The impact of the proposals on the features of the NNR are assessed in the Morecambe Bay and Duddon Estuary HRA and in the Duddon Estuary SSSI assessment in this document.

## Map showing North Walney NNR and proposed route of the ECP



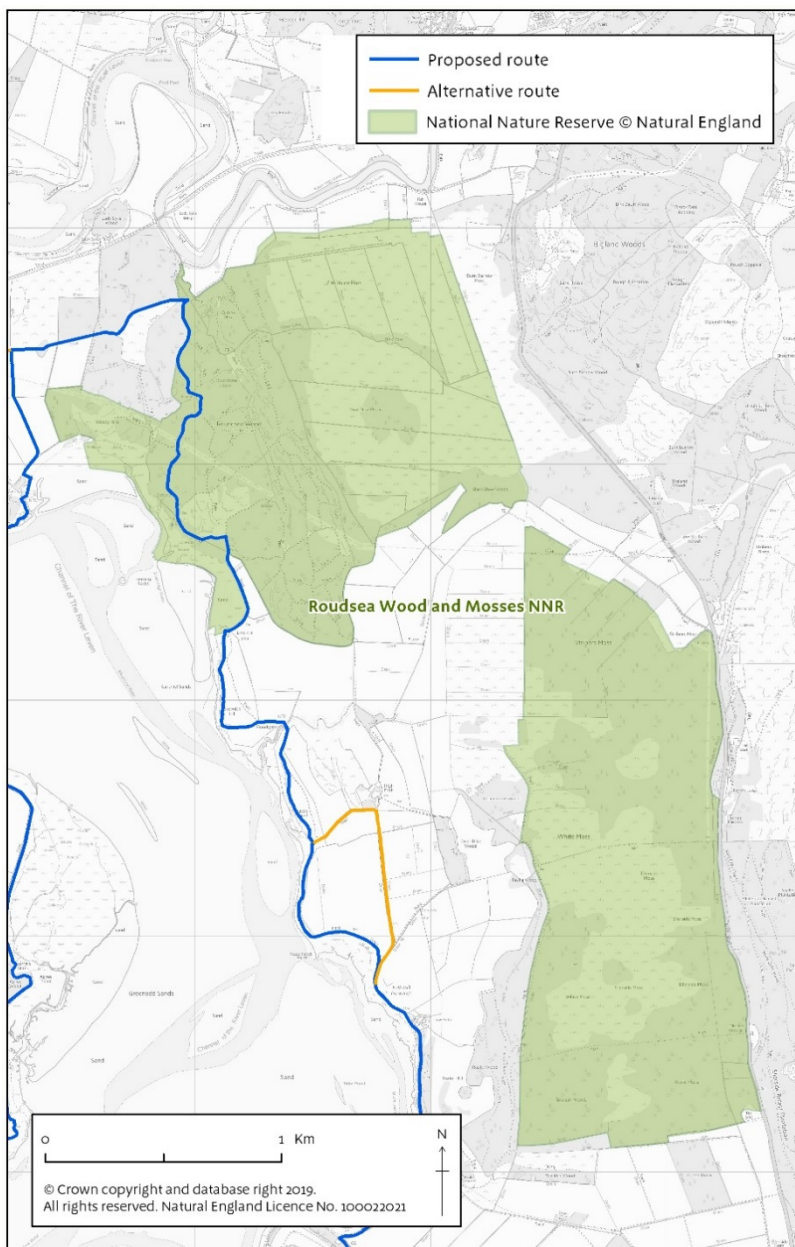


# Assessment of coastal access proposals on Roudsea Wood & Mosses NNR

Is this site or feature also part of a European site? **Yes**

This site is part of Roudsea Wood & Mosses SAC and SSSI. The impact of the proposals on the features of the NNR are assessed in the Roudsea Wood & Mosses HRA and in the Roudsea Wood & Mosses SSSI assessment in this document.

## Map showing Roudsea Wood & Mosses NNR and proposed route of the ECP



## **Assessment of coastal access proposals on other sites or species**

### **Assessment of coastal access proposals on Silverdale Coastal Cliffs & The Lots Biological Heritage Site**

Is this site or feature also part of a European site? **No**

#### **Current situation**

There is a popular public footpath through The Lots. There is little existing access on Silverdale Coastal Cliffs. Silverdale Coastal Cliffs supports species rich calcareous grassland, which is sensitive to trampling.

#### **Risk analysis**

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report map SDC 1a).**

The proposed ECP is aligned on the PRoW through The Lots, and on a new path through Silverdale Coastal Cliffs.

There is likely to be no more than a small increase in access through The Lots, as this is already a popular route. Therefore, it is not expected that trampling of vegetation will increase significantly as a result of the proposals. No infrastructure or establishment work, other than way marking, is required.

At Silverdale Coastal Cliffs there is likely to be a large increase in access. There will be some footpath levelling required to establish the trail, including minimal removal of bedrock in places, and installation of pedestrian gates into the fields behind, wherever the ECP route crosses between landward and seaward side of the boundary wall.

In order to minimise damage to the species-rich vegetation, the path through Silverdale Coastal Cliffs has been routed to avoid rare species as much as possible. AONB or NE staff will supervise establishment works, to further minimise risk of accidental damage.

#### **Establishment works**

Silverdale Coastal Cliffs: This part of the route will be subject to planning permission and vegetation surveys will be carried out for the planning permission as required. During establishment we will work with conservation staff from Natural England and / or Arnsdale and Silverdale AONB to identify sensitive areas and minimise damage to the vegetation.



# Assessment of coastal access proposals on Local Geodiversity Site – Silverdale Shore and Jack Scout.

Is this site or feature also part of a European site? **No**

## Current situation

There are currently high levels of access on Silverdale Shore and a network of popular routes through Jack Scout.

The Local Geodiversity Site features exposures of limestone along the shore in cliff sections, enabling examination of the rock at close quarters. This access allows appreciation of limestone deposition, fossils, subsequent folding and faulting and associated mineralisation, with examples easily seen. The effects of glaciation including the formation of limestone pavements can also be examined. The visible features are in the cliffs and in the rubble limestone on the shore and can be seen at low tide.

## Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report maps SDC 1a and SDC 1b).**

The proposed ECP is aligned through this LGS and some removal of rock is proposed as part of establishment works. There is the potential for features of interest to be damaged during construction of the England Coast Path.

In order to minimise any damage to the geological features of the site, removal of rock will be kept to a minimum.

Rock removal methods have been discussed with representatives from GeoLancashire on a site visit; it would be possible for contractors to access parts of the site with machinery, to break up the rock. However, where this raises concerns, hand tools can be used instead. The natural cleavage of the bedrock would be used to split layers and blocks away, rather than cutting.

GeoLancashire commented on specific tools and methods which should be used, as well as specific fossil features in the rock which should not be disturbed. They also specified that horizontal rather than vertical levelling would be preferable, to avoid scarring being visible to walkers on the foreshore. They will be invited to advise and supervise at establishment phase.

## Establishment works

This work requires planning permission and GeoLancashire will be consulted as part of the planning process. They have verbally shown support for our application. They have indicated that the planned footpath will not adversely affect the LGS and might be of benefit to GeoLancashire and to anyone interested in the geology of this area, especially if the current unofficial access to the shore could be improved. Both the footpath and easier access to the shore would increase interest in the geology as damage will be kept to a minimum and also access to the geological features will be improved.

## **Assessment of coastal access proposals on Belted Beauty Moth - *Lycia zonaria***

Is this site or feature also part of a European site? **No**

The belted beauty moth is a UK BAP priority species (Red Data Book category 3).

Belted beauty moths are found on the saltmarsh at Middleton Sands. Adult male belted beauty moths are winged and can be found during spring flying by both day and night. Females however cannot fly as their wings are too small (only 2mm) and are only able to crawl very short distances during their adult life.

The female moths are sensitive to trampling as they are flightless.

Although this moth is not a feature of Morecambe Bay SAC, the habitat on which it depends, saltmarsh, is a SAC feature. The Morecambe Bay & Duddon Estuary HRA concludes that the proposals will not cause an increase in trampling on the saltmarsh at Middleton Sands, and therefore our proposals will not have an impact on the belted beauty moth.

## **Assessment of coastal access proposals on Heysham Nature Reserve**

Is this site or feature also part of a European site? **No**

### **Current situation**

Heysham Nature Reserve is managed by Lancashire Wildlife Trust and consists of a wide variety of habitats including open water, reedbed, marsh, gorse and hawthorn scrub, acid and neutral grasslands, heath and tree and shrub plantations.

Much of the site is accessible, with surfaced paths that are frequently used by local dog walkers. One section is managed as a dog-free area, and is frequently used by school groups. The Wildlife Trust have expressed concerns that allowing dogs in this area would be detrimental to the management of the site.

### **Risk analysis**

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 2: Wild Duck Hall, Bolton-le-Sands to Ocean Edge Caravan Park, Heysham (Report map 2h).**

The proposed ECP is aligned through the seaward edge of the reserve and does not enter the dog-free area of the reserve.

The proposed ECP and coastal margin do not affect the area of concern; therefore the proposals will not have an impact on the nature reserve.

## **Assessment of coastal access proposals on Foulney Cumbria Wildlife Trust Reserve**

Is this site or feature also part of a European site? **Yes**

This site is part of Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC, SSSI and Ramsar. The conservation interests are all designated site features which are covered in the HRA or by the Morecambe Bay SSSI assessment in this document.

## **Assessment of coastal access proposals on Millom Ironworks Local Nature Reserve**

Is this site or feature also part of a European site? **No**

This site is part of Duddon Estuary SSSI and the conservation interests are SSSI features which are already covered by this assessment.

## **Assessment of coastal access proposals on Ancient Woodland**

Is this site or feature also part of a European site? **Yes**

The ECP passes through several sites which are on the ancient woodland inventory. Some of the woodlands are features of European sites or SSSIs, some which are within the boundary of a European site but not a feature of the site and some which are not within a designated site.

Woodland may be affected by the creation of new paths, if tree felling and scrub clearance is required to create the route. Vehicles and machinery used during construction could cause compaction of soil and damage to ground flora. Improvements to the surface of paths or installation of revetments, steps and other infrastructure could cause loss of ground flora. The possible impact of the access proposals on each ancient woodland site is considered below.

### **High Wood, near Askam-in-Furness**

This site is on the ancient woodland inventory and comprises ancient semi natural woodland. It is in Morecambe Bay & Duddon SPA, Duddon Estuary SAC, Duddon Estuary Ramsar and Duddon Estuary SSSI, but the woodland is not a feature of the designated sites.

#### **Current situation**

There are some paths through the woods which are used by local people.

#### **Risk analysis**

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 2: Green Road station to Jubilee Bridge, Vickerstown, (map SCS 2g).**

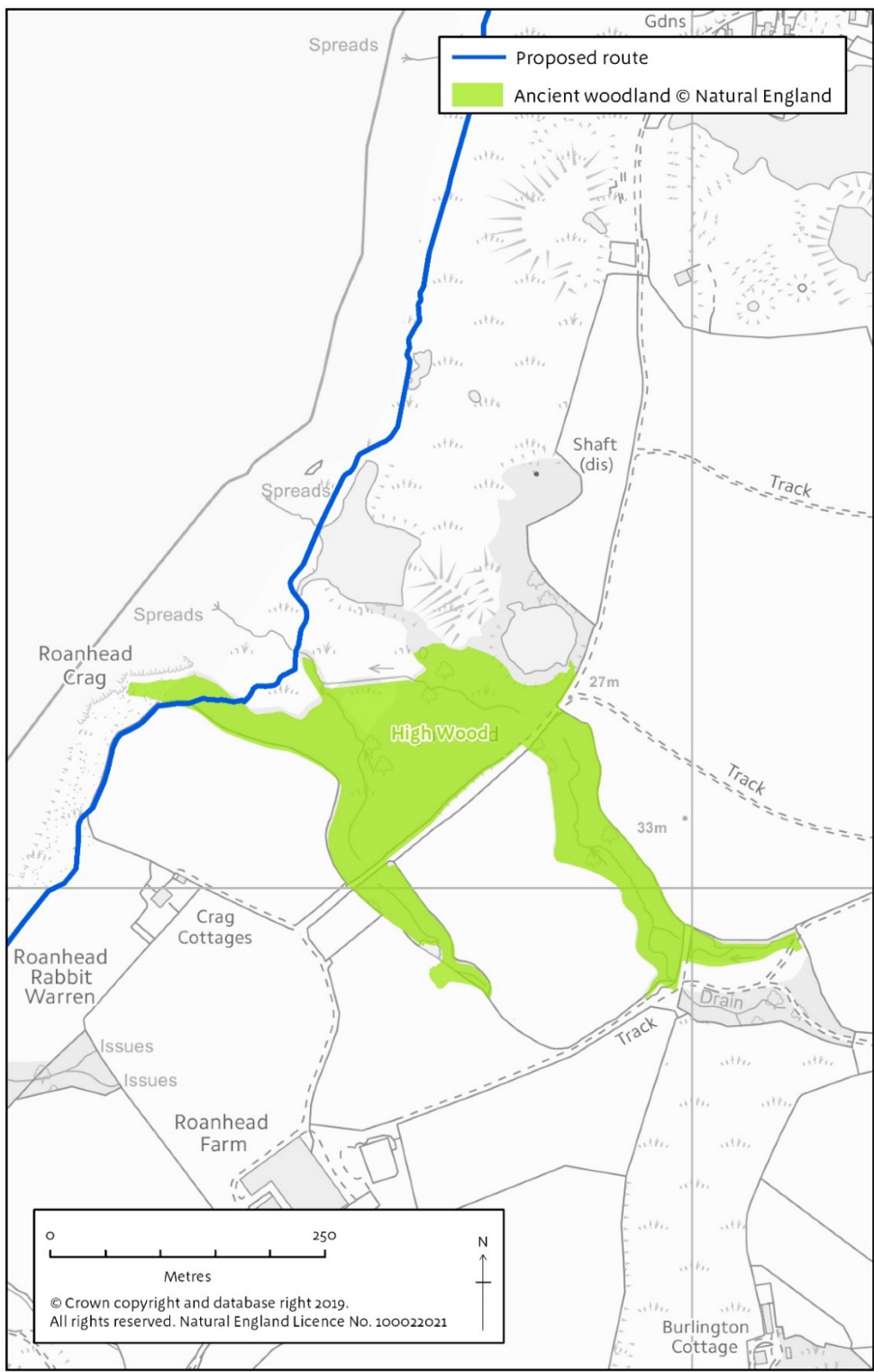
The proposed ECP will be aligned on a new route through High Wood. The following infrastructure is required:

- 35m section of trail levelled, edged with timber and surfaced with gravel
- 13m section of steel gantry steps

- clearance of bracken
- raising of tree crowns (removal of some lower limbs)
- scrub clearance

We have assessed the proposed route and infrastructure through ancient woodland at High Wood, with advice from the Forestry Commission, and have concluded that any tree/scrub removal will be very minimal. We are therefore able to conclude that the proposals will not significantly impact on the ancient woodland features.

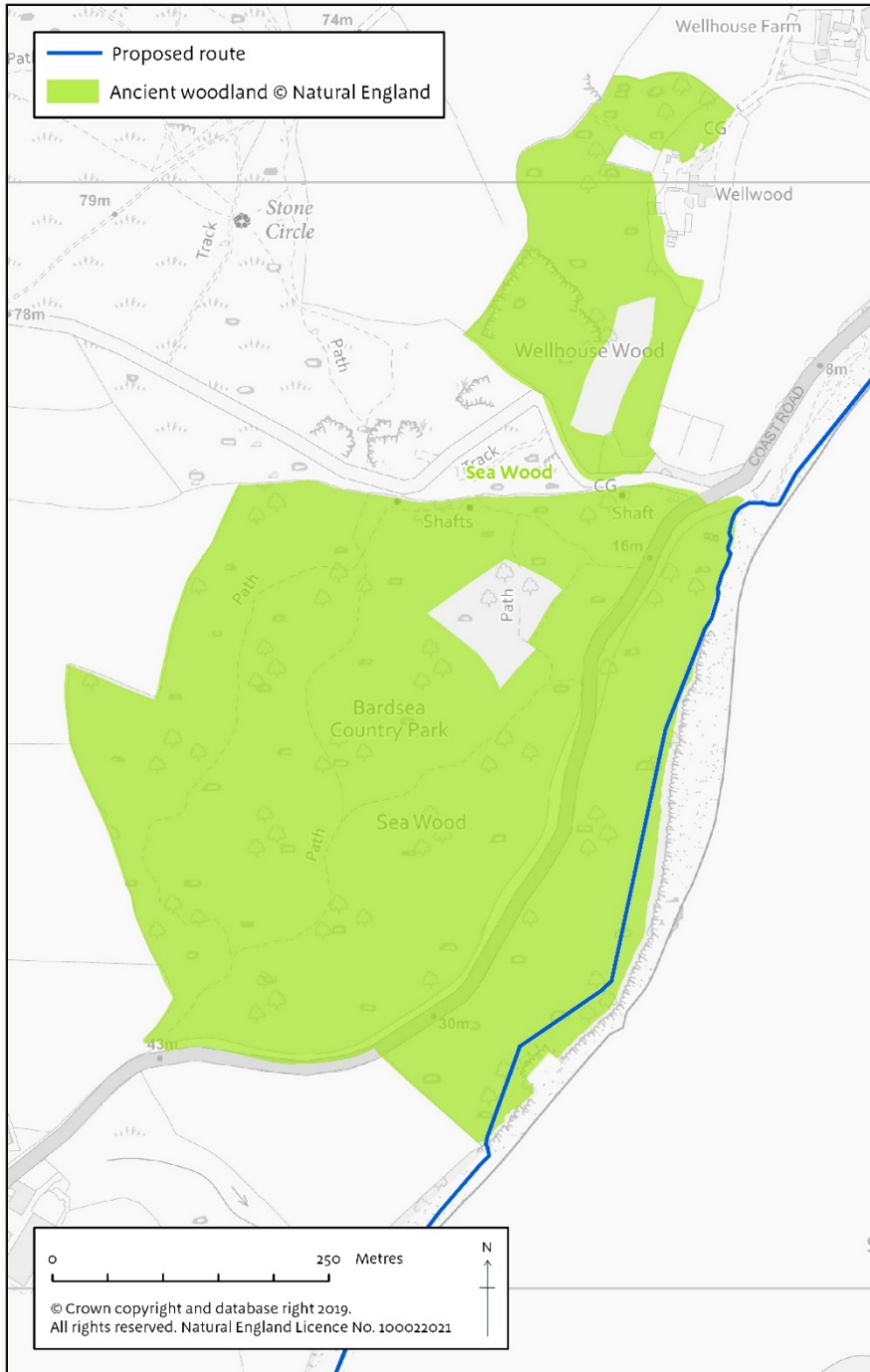
**Map showing ancient woodland at High Wood and proposed route of the ECP**



# Sea Wood

The ancient woodland is a feature of the Sea Wood SSSI. See the assessment of the impact of the proposals on Sea Wood SSSI in this document.

## Map showing ancient woodland at Sea Wood and proposed route of the ECP





## **Ashes Wood, south of Greenodd**

This site is on the ancient woodland inventory and comprises ancient semi natural woodland. There are no other designations on the site.

### **Current situation**

There is very little existing access in this wood.

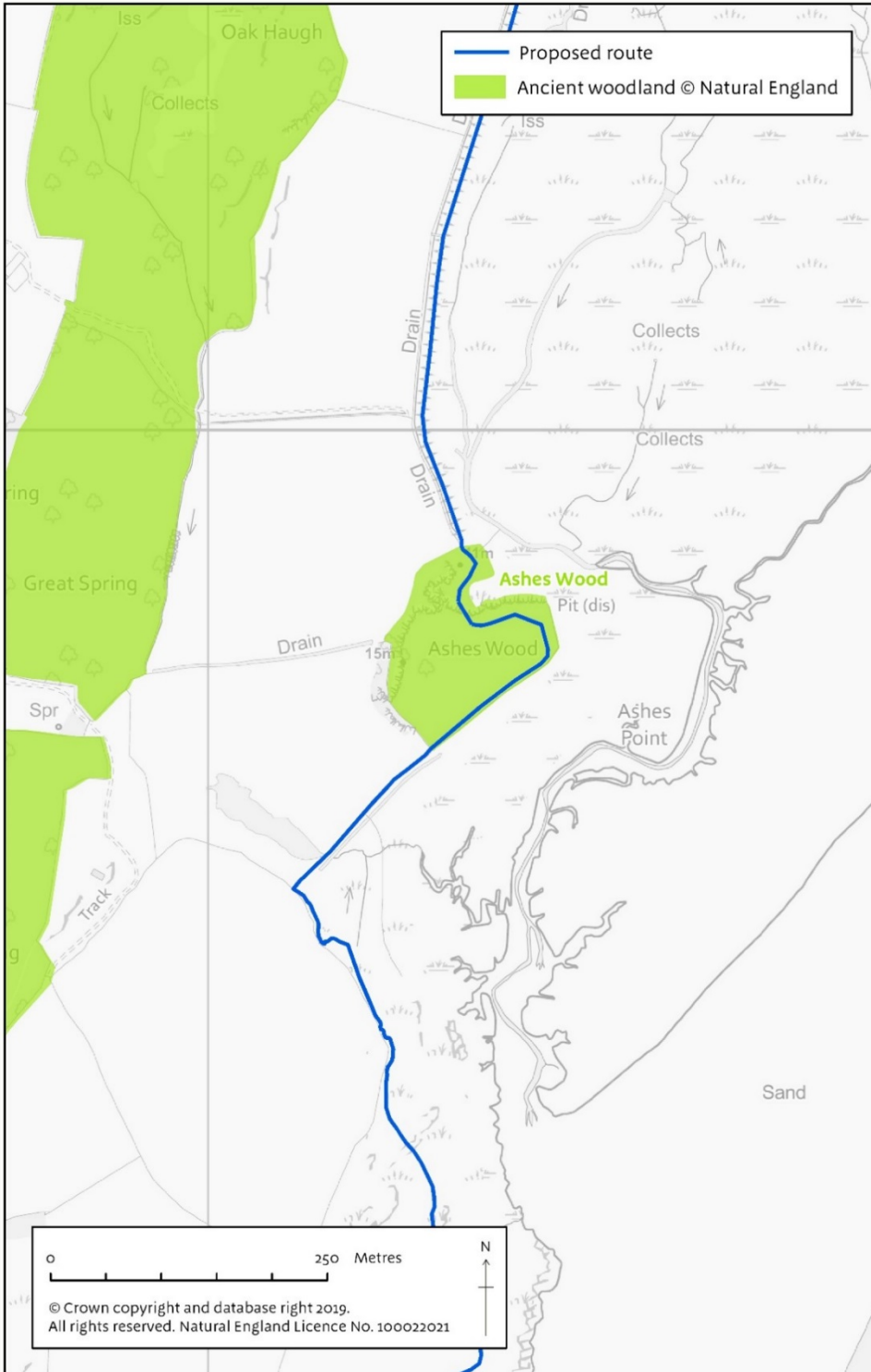
### **Risk analysis**

**The Coastal Access proposals for this site are described in full in Coastal Access Report SCS 4: Newbiggin to Greenodd footbridge (map SCS 4h).**

The proposed ECP will be aligned through Ashes Wood. No trees will be felled to create the route, and surfacing works will be minimal.

We have assessed the proposed route and infrastructure through ancient woodland at Ashes Wood, with advice from the Forestry Commission, and have concluded that the proposals will not significantly impact on the ancient woodland features.

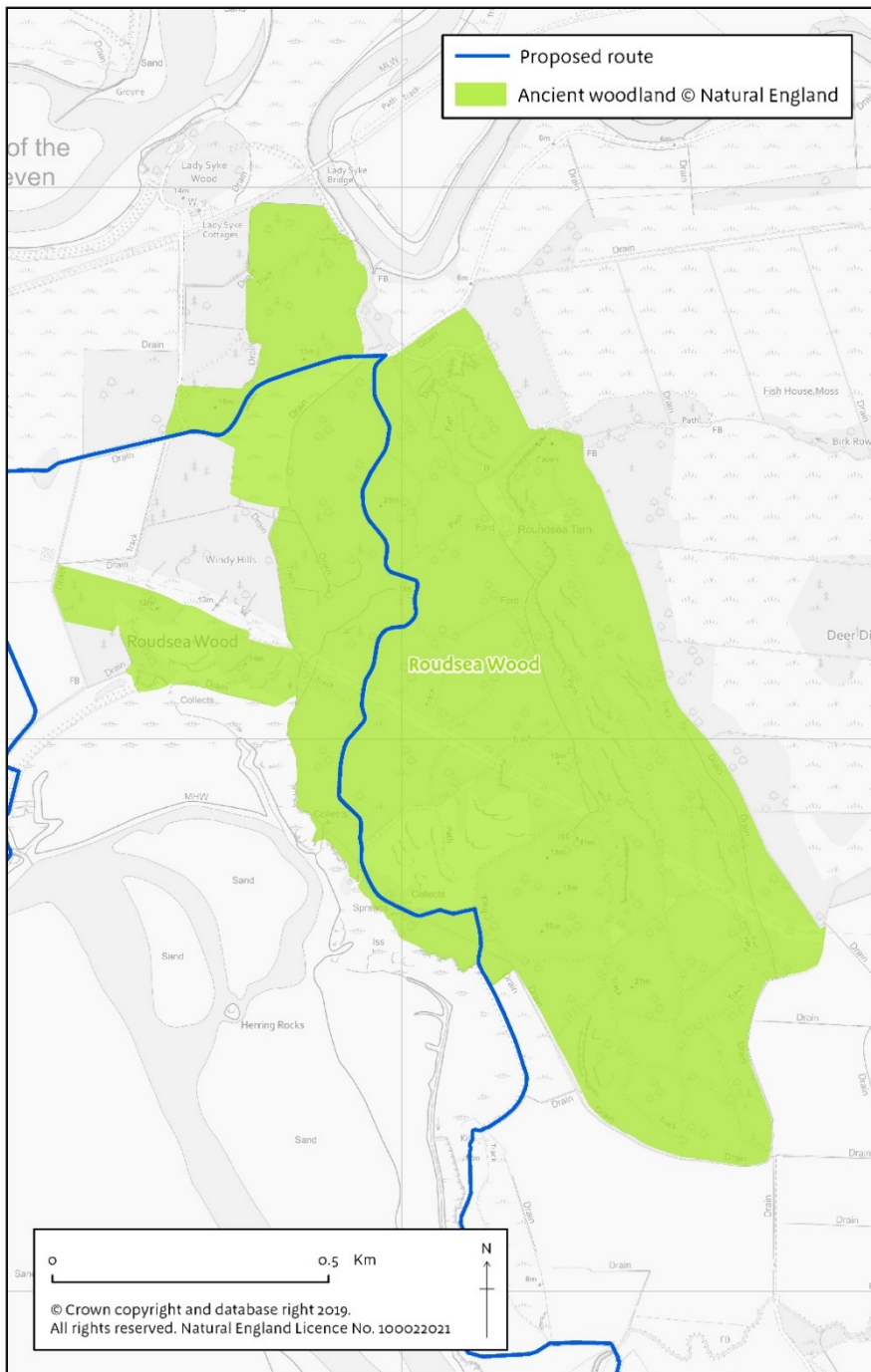
**Map showing ancient woodland at Ashes Wood and proposed route of the ECP**



# Roudsea Wood

The ancient woodland is a feature of Roudsea Wood & Mosses SAC. See the assessment of the impact of the proposals in the Roudsea Wood & Mosses HRA.

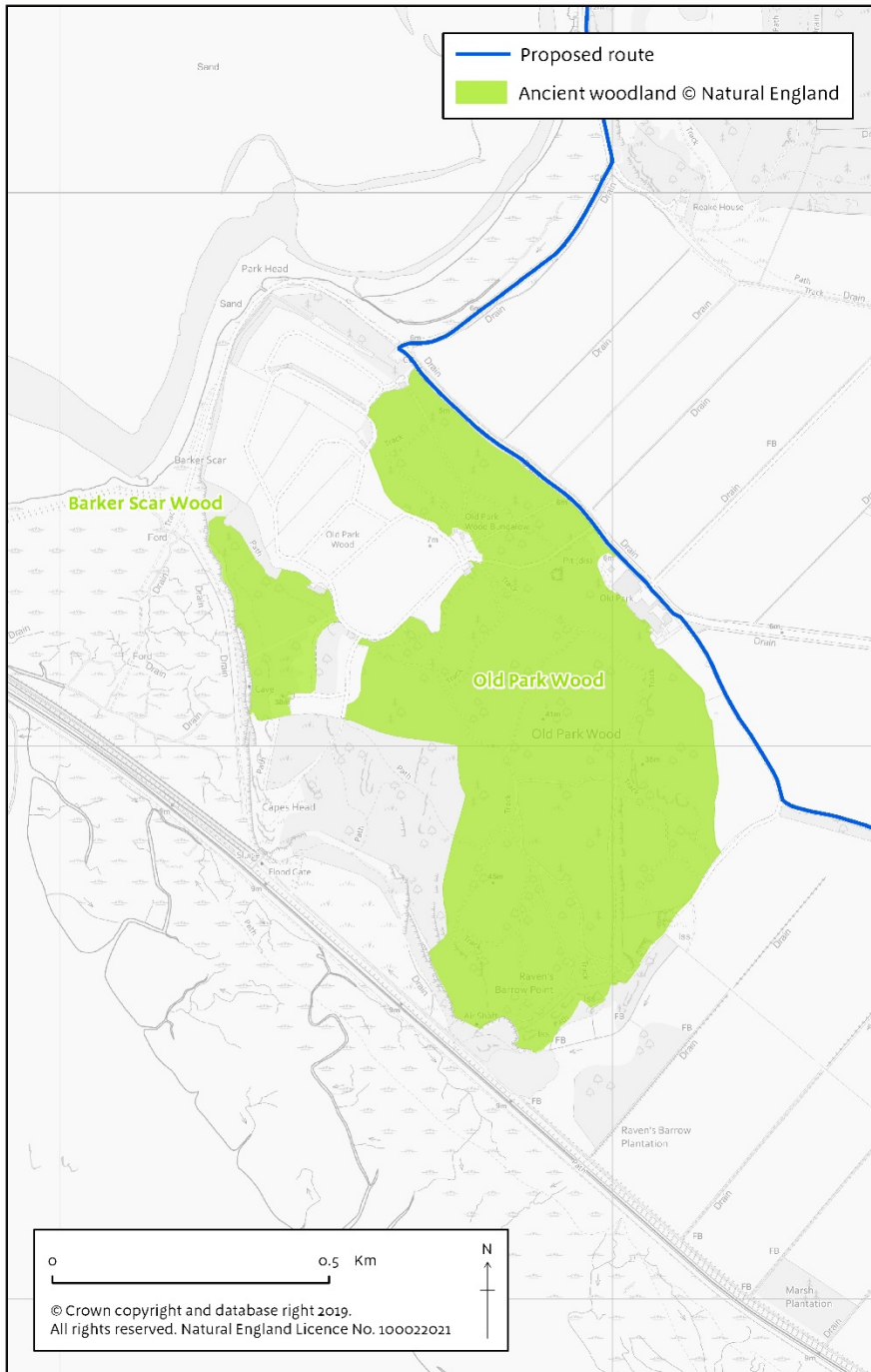
Map showing ancient woodland at Roudsea Wood and proposed route of the ECP



# Woodland at Barker Scar

The ancient woodland is a feature of Barker Scar SSSI. See the assessment of the impact of the proposals on Barker Scar SSSI in this document.

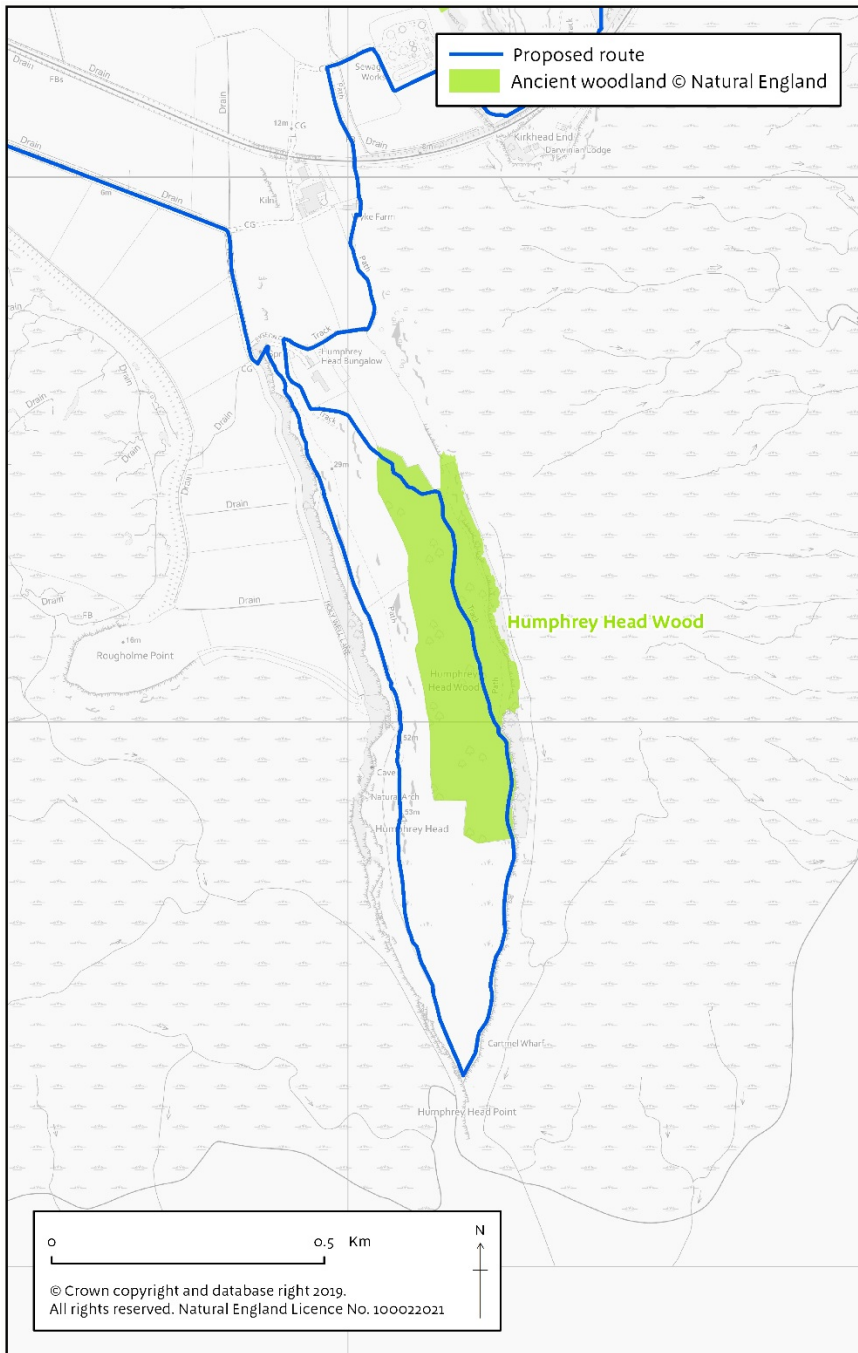
Map showing ancient woodland at Barker Scar and proposed route of the ECP



# Woodland at Humphrey Head

The ancient woodland is a feature of Humphrey Head SSSI. See the assessment of the impact of the proposals on Humphrey Head SSSI in this document.

Map showing ancient woodland at Humphrey Head and proposed route of the ECP

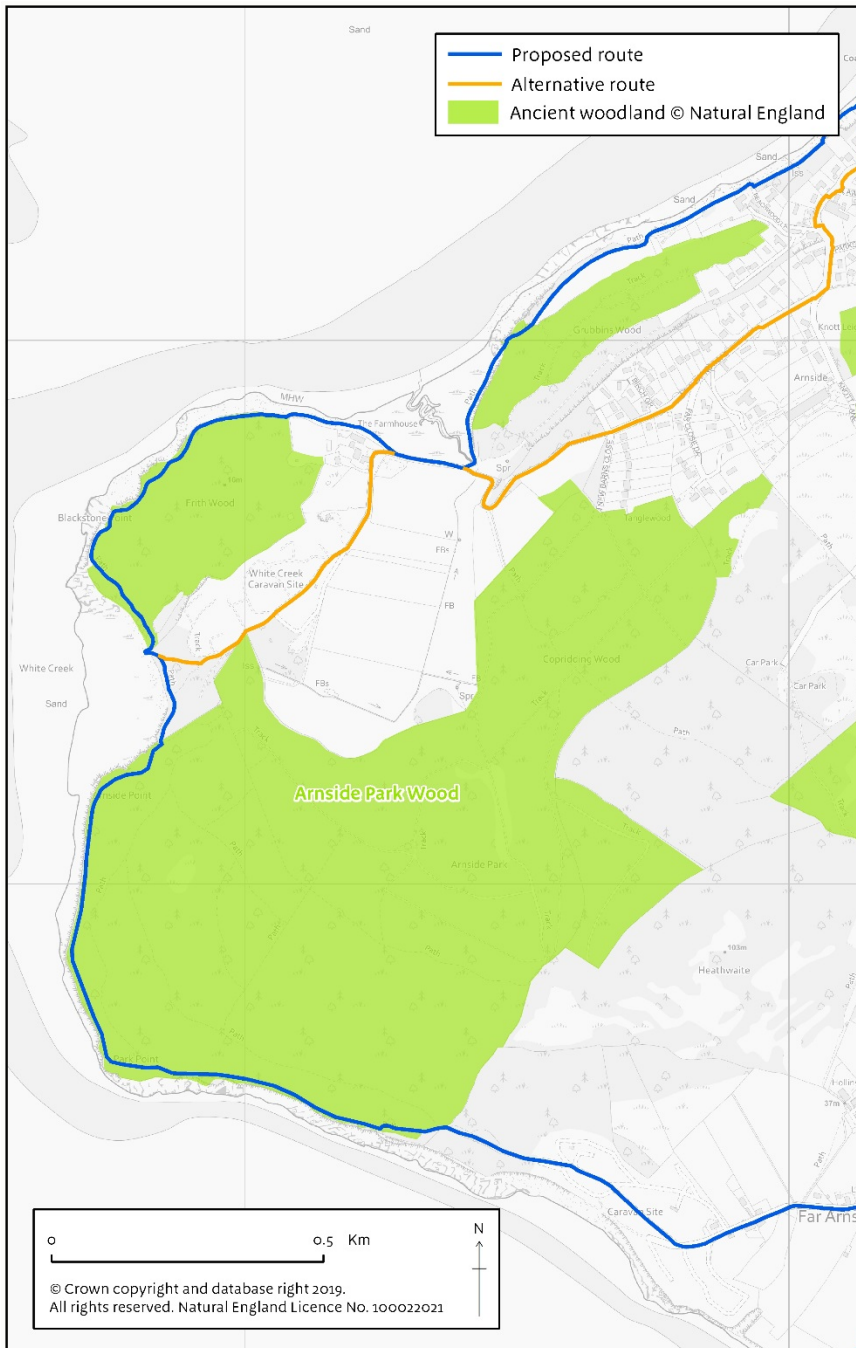




# Woodland at Arnside Park

The ancient woodland is a feature of Arnside Knott SSSI. See the assessment of the impact of the proposals on Arnside Knott SSSI in this document.

Map showing ancient woodland at Arnside Park and proposed route of the ECP



## **Cow Close Wood, Silverdale**

This site is on the ancient woodland inventory and comprises ancient semi natural woodland. There are no other designations on the site.

### **Current situation**

There is a track through this wood that is used by campsite residents.

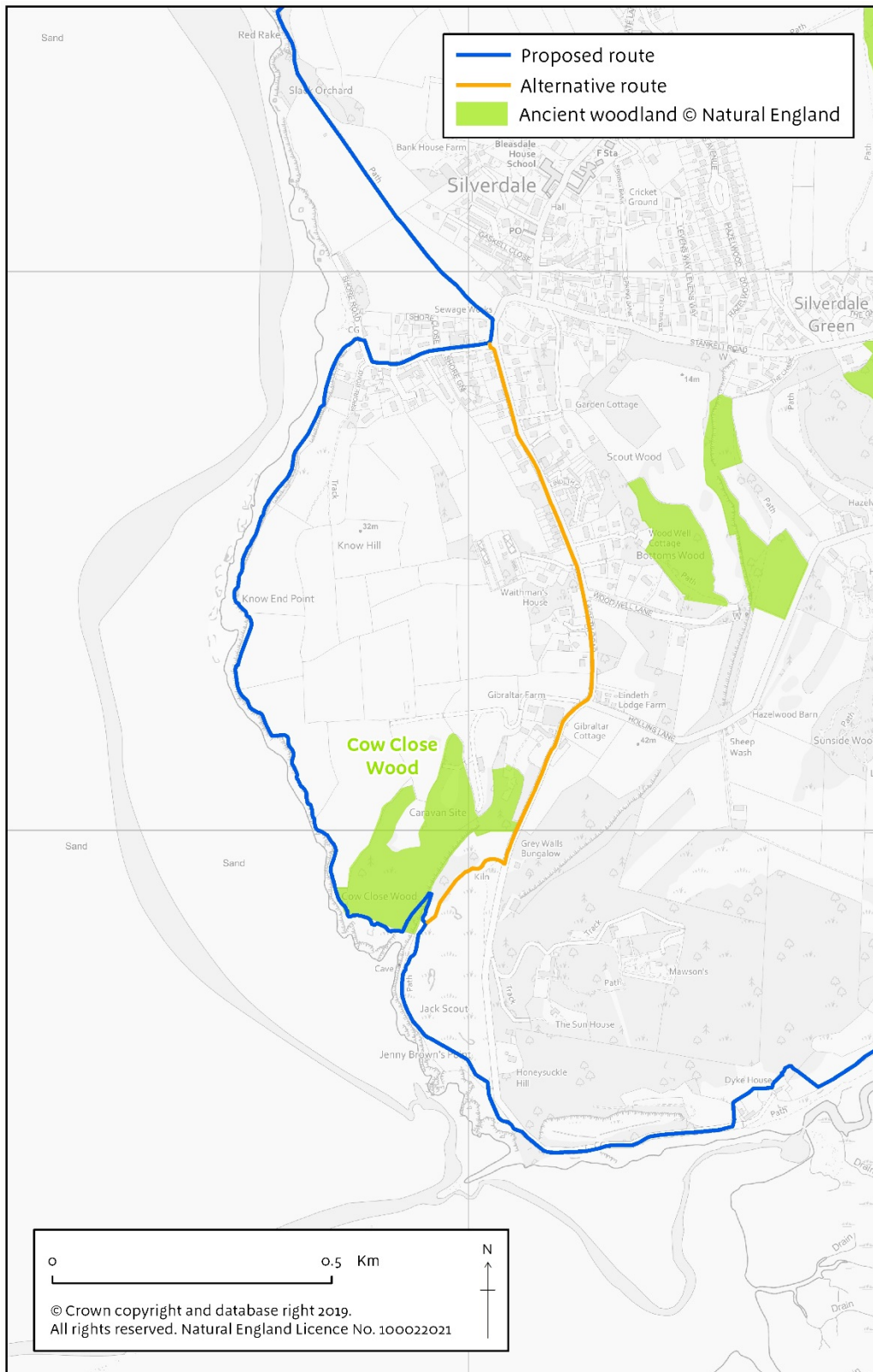
### **Risk analysis**

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report map SDC 1a).**

The proposed ECP passes through Cow Close Wood for 140m, partly on an existing private walked route which is used by campsite residents. Some path surfacing will take place within the wood, and some shrubs will be removed or pruned. Infrastructure required is signage, 35m of revetment and surfacing, and a set of plastic steps which will be bolted onto the cliff between Cow Close Wood and Jack Scout SSSI with a gate at the top. The proposals will not have an impact on the trees within the ancient woodland and will have a minimal impact on the ground flora.

We have assessed the proposed route and infrastructure through ancient woodland at Cow Close Wood, with advice from the Forestry Commission, and have concluded that the proposals will not significantly impact on the ancient woodland features.

**Map showing ancient woodland at Cow Close Wood and proposed route of the ECP**



## Woodland at Crag Foot, Warton

This site is on the ancient woodland inventory and comprises ancient semi natural woodland. The site is also a Biological Heritage Site.

### Current situation

There is very little existing access in this wood, with the exception of the public footpath which runs through one end of the wood.

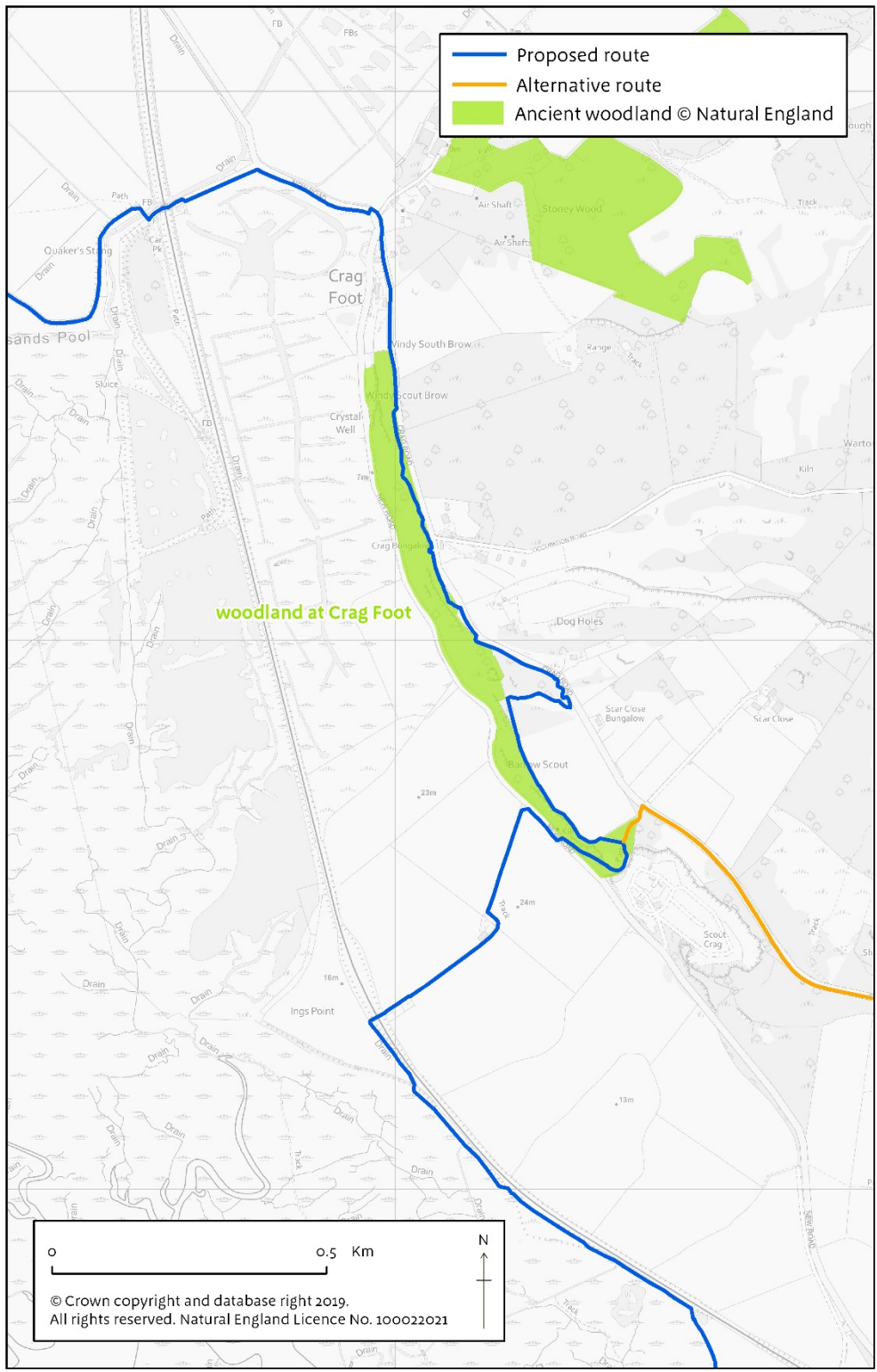
### Risk analysis

**The Coastal Access proposals for this site are described in full in Coastal Access Report SDC 1: Cove Well, Silverdale to Wild Duck Hall, Bolton-le-Sands (Report map SDC 1c).**

The proposed ECP will be aligned through Crag Foot woodland on a new path and on the public footpath.

To create the path, approx. 450m of minimal scrub clearance will be required. The path has been carefully aligned so that it will not be necessary to fell any mature trees; however, some removal of overhanging tree limbs will be required. Path surfacing is not needed as the substrate is suitable for walking over. The proposals have been discussed with the landowners (RSPB) and Arnside and Silverdale AONB. Discussions have also taken place with the Forestry Commission, who have said that the proposals will not require any particular permit or licence due to the scale of works proposed.

# Map showing ancient woodland at Crag Foot and proposed route of the ECP





## Conclusion

We, Natural England, are satisfied that our proposals to improve access to the English coast between Silecroft & Silverdale and Silverdale & Cleveleys are fully compatible with our duty to further the conservation and enhancement of the notified features of the following SSSIs, consistent with the proper exercise of our functions<sup>1</sup>:

- **Shaw Meadow and Sea Pasture SSSI**
- **Duddon Estuary SSSI**
- **Duddon Mosses SSSI**
- **South Walney & Piel Channel Flats SSSI**
- **Morecambe Bay SSSI**
- **Sea Wood SSSI**
- **Roudsea Woods and Mosses SSSI**
- **Skelwith Hill SSSI**
- **Barker Scar SSSI**
- **Humphrey Head SSSI**
- **Arnside Knott SSSI**
- **Far Arnside SSSI**
- **Jack Scout SSSI**
- **Lune Estuary SSSI**
- **Cockerham Marsh SSSI**
- **Wyre Estuary SSSI**

In respect of any duties that may arise under section 125 of the Marine and Coastal Access Act 2009, Natural England has concluded for **Wyre Lune Marine Conservation Zone** that the access proposal (including any mitigation measures specified) is the one that, consistent 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.

We, Natural England, are satisfied that our proposals to improve access to the English coast between Silecroft & Silverdale and Silverdale & Cleveleys will not cause the removal or disturbance of limestone in the following areas where a Limestone Pavement Order has been made:

- **Old Park and Waitham Wood Limestone Pavement Order**
- **Humphrey Head Limestone Pavement Order**
- **Wartbarrow and Kirkhead Limestone Pavement Order**
- **Heald Brow Limestone Pavement Order**
- **Warton Crag and Grisedale Wood Limestone Pavement Order**

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<sup>1</sup> 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.

We, Natural England, are satisfied that the access proposals will not compromise management of the following National Nature Reserves for their conservation purpose of preserving features of special interest in the area:

- **Duddon Mosses NNR**
- **Sandscale Haws NNR**
- **North Walney NNR**
- **Roudsea Wood & Mosses NNR**

In respect of the Ancient Woodland sites listed below 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:

- **High Wood, near Askam-in-Furness**
- **Sea Wood**
- **Ashes Wood, south of Greenodd**
- **Roudsea Wood**
- **Woodland at Barker Scar**
- **Woodland at Humphrey Head**
- **Woodland at Arnside Park**
- **Cow Close Wood, Silverdale**
- **Woodland at Crag Foot, Warton**

In respect of the locally important sites and features listed below 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:

- **Local Wildlife Site - Silverdale Coastal Cliffs & The Lots**
- **Local Geodiversity Site – Silverdale Shore and Jack Scout.**
- **Belted Beauty Moth - *Lycia zonaria***
- **Heysham Nature Reserve**
- **Foulney Cumbria Wildlife Trust Reserve**
- **Millom Ironworks Local Nature Reserve**

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

The conclusions of this assessment have been checked by:

Sarah Wiseman	09/12/2019	On behalf of the Coastal Access Programme Team
Mark Hesketh	09/12/2019	Deputy Area Manager

## References to evidence

1. Booth, Haywood, Marsh & Roberts. 2016. North West estuaries breeding wader and seabird review. Unpublished report for Natural England.
2. MARSH, ROBERTS, SKELCHER. 2012. Morecambe Bay Wader Roost Study.  
<http://www.morecambebay.org.uk/natural-heritage/projects/action-for-birds>
3. Liley, Underhill-Day, Panter, Marsh & Roberts 2015. Recreational Disturbance Study. Morecambe Bay Bird Disturbance and Access Management Report, prepared for Morecambe Bay Partnership by Footprint Ecology.  
<http://www.morecambebay.org.uk/natural-heritage/projects/action-for-birds>
4. Natural England. 2009. Scientific research into the effects of access on nature conservation: Part 1: access on foot (NECR012)  
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## Annex 1. Index to designated sites and features

Table 5. Bird interest features of Morecambe Bay & Duddon Estuary SPA, South Walney & Piel Channel Flats SSSI, Duddon Estuary SSSI, Morecambe Bay SSSI, Lune Estuary SSSI, Wyre Estuary SSSI, Morecambe Bay RAMSAR and Duddon Estuary RAMSAR

\* part of SPA seabird or waterbird assemblage

Designated Features	Morecambe Bay & Duddon Estuary SPA	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Morecambe Bay RAMSAR	Duddon Estuary RAMSAR
Arctic tern; <i>Sterna paradisaea</i> (breeding)	✓*	✓	✓					
Bar-tailed godwit; <i>Limosa lapponica</i> (non-breeding)	✓	✓		✓	✓		✓	
Black-headed gull: <i>Larus ridibundus</i> (breeding)	✓*		✓					
Black-headed gull: <i>Larus ridibundus</i> (non-breeding)	✓*							
Black-tailed godwit, <i>Limosa limosa islandica</i> (non-breeding)	✓			✓		✓	✓	
Common Gull, <i>Larus canus</i> (non-breeding)	✓*							
Common redshank; <i>Tringa totanus</i> (non-breeding)	✓	✓	✓	✓	✓		✓	✓
Common shelduck; <i>Tadorna tadorna</i> (breeding)			✓	✓	✓			
Common shelduck; <i>Tadorna tadorna</i> (non-breeding)	✓	✓	✓	✓			✓	
Common tern; <i>Sterna hirundo</i> (breeding)	✓		✓		✓			

Designated Features	Morecambe Bay & Duddon Estuary SPA	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Morecambe Bay RAMSAR	Duddon Estuary RAMSAR
Cormorant; <i>Phalacrocorax carbo</i> (non-breeding)	✓*	✓						
Dunlin; <i>Calidris alpina alpina</i> (non-breeding)	✓	✓	✓	✓	✓		✓	
Eider; <i>Somateria mollissima</i> (breeding)		✓		✓	✓			
Eider; <i>Somateria mollissima</i> (non-breeding)		✓		✓			✓	
Eurasian curlew; <i>Numenius arquata</i> (non-breeding)	✓	✓	✓	✓	✓		✓	
Eurasian oystercatcher; <i>Haematopus ostralegus</i> (breeding)			✓					
Eurasian oystercatcher; <i>Haematopus ostralegus</i> (non-breeding)	✓	✓	✓	✓	✓		✓	
European golden plover; <i>Pluvialis apricaria</i> (non-breeding)	✓							
Goldeneye; <i>Bucphala clangula</i> (non-breeding)	✓*			✓				
Great black-backed gull	✓*							
Great White Egret; <i>Ardea alba</i> (non-breeding)	✓*							
Green Winged Teal; <i>Anas carolinensis</i> (non-breeding)	✓*							
Greenshank; <i>Tringa nebularia</i> (non-breeding)	✓*							
Grey plover; <i>Pluvialis squatarola</i> (non-breeding)	✓	✓	✓	✓				



Designated Features	Morecambe Bay & Duddon Estuary SPA	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Morecambe Bay RAMSAR	Duddon Estuary RAMSAR
Herring gull <i>Larus argentatus</i> (breeding)	✓	✓						
Herring gull <i>Larus argentatus</i> (non-breeding)	✓*	✓						
Lapwing; <i>Vanellus vanellus</i> (breeding)			✓					
Lapwing; <i>Vanellus vanellus</i> (non-breeding)	✓*						✓	
Lesser black-backed gull; <i>Larus fuscus</i> (breeding)	✓	✓						
Lesser black-backed gull; <i>Larus fuscus</i> (non-breeding)	✓	✓					✓	
Light bellied brent goose (non-breeding)	✓*							
Linnet; <i>Carduelis cannabina</i> (breeding)			✓					
Little egret; <i>Egretta garzetta</i> (non-breeding)	✓							
Little Stint; <i>Calidris minuta</i> (non-breeding)	✓*							
Little Tern; <i>Sternula albifrons</i> (breeding)	✓		✓					
Mallard ; <i>Anas platyrhynchos</i> (non-breeding)	✓*							
Mediterranean gull; <i>Larus melanocephalus</i> (non-breeding)	✓							
Northern pintail; <i>Anas acuta</i> (non-breeding)	✓	✓	✓	✓			✓	✓

Designated Features	Morecambe Bay & Duddon Estuary SPA	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Morecambe Bay RAMSAR	Duddon Estuary RAMSAR
Pink-footed goose; <i>Anser brachyrhynchus</i> (non-breeding)	✓	✓			✓		✓	
Red breasted merganser; <i>Mergus serrator</i> (breeding)			✓					
Red breasted merganser; <i>Mergus serrator</i> (non-breeding)	✓*		✓		✓		✓	
Red knot; <i>Calidris canutus</i> (non-breeding)	✓	✓	✓	✓	✓		✓	
Reed bunting; <i>Emberiza schoeniclus</i> (breeding)				✓				
Ringed plover; <i>Charadrius hiaticula</i> (breeding)			✓					
Ringed plover; <i>Charadrius hiaticula</i> (non-breeding)	✓	✓	✓	✓	✓		✓	✓
Ring necked duck; <i>Aythya collaris</i> (non-breeding)	✓*							
Ruff; <i>Philomachus pugnax</i> (non-breeding)	✓							
Sanderling; <i>Calidris alba</i> (non-breeding)	✓		✓	✓	✓			
Sandwich tern; <i>Sterna sandvicensis</i> (Breeding)	✓	✓	✓					
Sedge warbler; <i>Acrocephalus schoenobaenus</i> (breeding)			✓					
Spotted redshank; <i>Tringa erythropus</i> (non-breeding)	✓*							
Snipe; <i>Gallinago gallinago</i> (breeding)			✓					

Designated Features	Morecambe Bay & Duddon Estuary SPA	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Morecambe Bay RAMSAR	Duddon Estuary RAMSAR
Stonechat ; <i>Saxicola torquata</i> (breeding)			✓					
Teal <i>Anas crecca</i> (non-breeding)	✓*					✓		
Turnstone; <i>Arenaria interpres</i> (non-breeding)	✓	✓	✓	✓	✓	✓	✓	
Wheatear; <i>Oenanthe oenanthe</i> (breeding)				✓				
Whooper swan <i>Cygnus cygnus</i> (non-breeding)	✓							
Wigeon; <i>Anas penelope</i> (non-breeding)	✓*							
Internationally important seabird assemblage of over 20,000 individuals (breeding)	✓							
Internationally important waterbird assemblage of over 20,000 individuals (non-breeding)	✓	✓	✓	✓			✓	✓
Aggregation of breeding birds, lesser black-backed gull, herring gull, eider, arctic tern		✓						
Breeding bird assemblage of sand-dune and saltmarsh: red-breasted merganser, shelduck, lapwing, ringed plover, snipe, stonechat, sedge warbler, linnet, black-headed gull, common tern, arctic tern, little tern, oystercatcher			✓					
Breeding bird assemblage: breeding birds characteristic of saltmarsh					✓			
Estuary / shallow coastal waters: aggregations of breeding birds: sandwich tern		✓	✓					
Breeding bird assemblage: shelduck, oystercatcher, ringed plover, lapwing, dunlin, snipe, curlew, black-headed gull, common tern, wheatear, sedge warbler, linnet, reed bunting, redshank.				✓				

Designated Features	Morecambe Bay & Duddon Estuary SPA	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Morecambe Bay RAMSAR	Duddon Estuary RAMSAR
Saltmarsh: aggregations of breeding birds: common tern					✓			
Aggregations of non-breeding, wintering and passage migration birds:		✓	✓	✓	✓	✓	✓	
Aggregations of non-breeding birds: waterfowl assemblage (>20,000 wintering waterfowl),			✓	✓				

**Table 6. Interest Features of Morecambe Bay SAC, South Walney & Piel Channel Flats SSSI, Duddon Estuary SSSI, Morecambe Bay SSSI, Lune Estuary SSSI, Wyre Estuary SSSI, Cockerham Marsh SSSI and Duddon Estuary RAMSAR (excluding birds)**

Designated Features	Morecambe Bay SAC	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Cockerham Marsh SSSI	Duddon Estuary RAMSAR
H1130. Estuaries	✓							
H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandbanks	✓	✓	✓	✓	✓			
H1160. Large shallow inlets and bays	✓							
H1220. Perennial vegetation of stony banks; Coastal shingle vegetation out of reach of waves	✓	✓	✓	✓	✓			
H1310. <i>Salicornia</i> and other annuals colonising mud and sand; glasswort and other annuals colonising mud and sand	✓	✓	✓	✓	✓	✓		
H1330. Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )	✓	✓	✓	✓	✓	✓		
H2120. Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes); Shifting dunes with marram	✓	✓	✓					
H2130. Fixed coastal dunes with herbaceous vegetation (grey dunes); Dune grassland*	✓	✓	✓					
H2190. Humid dune slacks	✓	✓	✓					



Designated Features	Morecambe Bay SAC	South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Cockerham Marsh SSSI	Duddon Estuary RAMSAR
H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks	✓	✓			✓			
Coastal lagoons	✓	✓	✓					
Reefs	✓	✓	✓					
H2110. Embryonic shifting dunes	✓	✓	✓	✓	✓			
H2150. Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> ); Coastal dune heathland*	✓	✓	✓					
H2170. Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ); Dunes with creeping willow	✓	✓	✓					
S1166. Great Crested Newt; <i>Triturus cristatus</i>	✓							
Natterjack toad; <i>Bufo calamita</i>			✓				✓	✓
Invertebrate assemblage: Broad Assemblage Type: F11 unshaded early successional mosaic. Specific Assemblage Types F111 bare sand and chalk, F112 open short sward.	✓	✓	✓					
Vascular plant assemblage: Shingle, <i>Fumaria purpurea</i> , <i>Limonium humile</i> , <i>Mertensia maritime</i> , <i>Vulpia fasciculata</i>		✓						
Vascular plant assemblage: Sand Dune / Saltmarsh / Artificial Substrate <i>Epipactis dunensis</i> , <i>Centaurium littorale</i> , <i>Corallorhiza trifida</i> , <i>Epipactis phyllanthes</i> , <i>Equisetum variegatum</i> , <i>Limonium</i>			✓		✓			✓

Designated Features	Morecambe Bay SAC		South Walney & Piel Channel Flats SSSI	Duddon Estuary SSSI	Morecambe Bay SSSI	Lune Estuary SSSI	Wyre Estuary SSSI	Cockerham Marsh SSSI		Duddon Estuary RAMSAR
<i>humile</i> , <i>Pyrola rotundifolia</i> , <i>Vulpia membranacea</i> , <i>Coincya monensis monensis</i>										
Saltmarsh and sand dune vascular plant assemblage ( <i>Adiantum capillus-veneris</i> , <i>Fumaria purpurea</i> , <i>Limonium humile</i> , <i>Sorbus lancestransiensis</i> , <i>Sesleria caerulea</i> , <i>Limonium britannicum subsp celticum</i> )					✓					
Higher Plant assemblage of nationally scarce plants: ( <i>Aliium scorodoprasum</i> , <i>Atriplex longipes</i> , <i>Limonium humile</i> , <i>Raphanus maritimus</i> )						✓				
Coastal geomorphology of England: Barrier Island			✓	✓						
Saltmarsh invertebrate assemblage (Broad Assemblage Type: W53: saltmarsh estuary and mudflats Specific Assemblage Types W531 saltmarsh and transition brackish marsh)					✓					✓
Swamp vegetation and transitions to brackish and freshwater habitats: S4a <i>Phragmites australis</i> swamp/ reedbed S21 <i>Scirpus maritimus</i> swamp S28 <i>Phalaris arundinacea</i> tall-herb fen							✓			

**Table 7. Interest features of Duddon Mosses SAC and Duddon Mosses SSSI**

Designated Features	Duddon Mosses SAC	Duddon Mosses SSSI
7110 Active raised bogs	✓	
7120 Degraded raised bogs still capable of natural regeneration	✓	
Lowland raised bog comprising mire expanse and bog: M2 <i>S. cuspidatum/S. recurvum</i> bog pool community M15 <i>Scirpus cespitosus-Erica tetralix</i> wet heath M18 <i>Erica tetralix-Sphagnum papillosum</i> raised and blanket mire M4 <i>Carex rostrata-Sphagnum recurvum</i> mire M6 <i>Carex echinata-Sphagnum recurvum/auriculatum</i> mire M23 <i>Juncus effusus/acutiflorus-Galium palustre</i> rush-pasture M25 <i>Molinia caerulea-potentilla erecta</i> mire M27 <i>Filipendula ulmaria-Angelica sylvestris</i> mire M3 - <i>Eriophorum angustifolium</i> bog pool community S4 <i>Phragmites australis</i> swamp & reedbeds S27 <i>Carex rostrata-Potentilla palustris</i> fen W5 <i>Alnus glutinosa – Carex paniculata</i> woodland W6 <i>Alnus glutinosa – Urtica dioica</i> woodland		✓
Soligenous mire / fen M6d <i>Carex echinata-Sphagnum recurvum/auriculatum</i> mire M23 <i>Juncus effusus/acutiflorus-Galium palustre</i> rush-pasture		✓
Invertebrate Assemblage (Broad Assemblage Type: W31 permanent wet mire. Specific Assemblage Types W311 open water in acid mire W312 acid mire.)		✓

**Table 8. Interest features of Roudsea Wood and Mosses SAC & SSSI**

Designated Features	Roudsea Wood and Mosses SAC	Roudsea Wood and Mosses SSSI
7110 Active raised bogs	✓	
7120 Degraded raised bogs still capable of natural regeneration	✓	
Broadleaved, mixed and yew woodland: 9180 <i>Tilio-Acerion</i> forests of slopes, screes and ravines	✓	
Broadleaved, mixed and yew woodland: 91J0 <i>Taxus baccata</i> woods of the British Isles	✓	
Lowland Raised Bog M18 <i>Erica tetralix-Sphagnum papillosum</i> raised and blanket mire		✓
Wet and Acidic Woodland W2a <i>Salix cinerea-Betula pubescens-Phragmites australis</i> woodland, <i>Alnus glutinosa-Filipendula</i> subcommunity W4a & b <i>Betula pubescens-Molinia caerulea</i> woodland, <i>Dryopteris dilatata-Rubus fruticosus</i> and <i>Juncus effusus</i> subcommunities W6a <i>Alnus glutinosa-Urtica dioica</i> woodland, typical subcommunity W7b <i>Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum</i> woodland, <i>Carex remota-Cirsium palustre</i> subcommunity W11a <i>Quercus petraea - Betula pubescens - Oxalis acetosella</i> woodland, <i>Dryopteris dilatata</i> subcommunity W16b <i>Quercus sp -Betula sp-Deschampsia flexuosa</i> woodland, <i>Vaccinium myrtillus-Dryopteris dilatata</i> subcommunity		✓
Calcareous woodland W8e & f <i>Fraxinus excelsior – Acer campestre – Mercurialis perennis</i> woodland, <i>Geranium robertianum</i> and <i>Allium ursinum</i> subcommunities		✓
Invertebrate Assemblage (Broad Assemblage Type: W31 permanent wet mire. Specific Assemblage Types W311 open water in acid mire W312 acid mire.)		✓
Vascular Plant Assemblage <i>Allium scorodoprasum, Carex vulpina, Hypericum montanum, Meconopsis cambrica, Andromeda polifolia, Carex flava, Sorbus lancastriensis, Carex digitata Carex elongata</i>		✓

**Table 9. Interest features of Shaw Meadow & Sea Pasture SSSI, Sea Wood SSSI, Skelwith Hill SSSI, Barker Scar SSSI, Humphrey Head SSSI, Arnside Knott SSSI, Far Arnside SSSI & Jack Scout SSSI.**

Designated Features	Shaw Meadow & Sea Pasture SSSI	Sea Wood SSSI	Skelwith Hill SSSI	Barker Scar SSSI	Humphrey Head SSSI	Arnside Knott SSSI	Far Arnside SSSI	Jack Scout SSSI
Lowland dwarf shrub heath H8 <i>Calluna vulgaris</i> – <i>Ulex gallii</i> heath	✓							
Lowland wetland (flush) M6 <i>Carex echinata</i> – <i>Sphagnum recurvum (fallax) / auriculatum (denticulatum)</i> mire	✓							
Lowland grassland MG5 <i>Cynosurus cristatus</i> - <i>Centaurea nigra</i> grassland / CG10 <i>Festuca ovina</i> - <i>Agrostis capillaris</i> - <i>Thymus praecox</i> grassland mosaic	✓							
Carboniferous stratigraphy – Dinantian of N England and N Wales			✓	✓	✓			
Calcareous grassland CG9 <i>Sesleria caerulea</i> – <i>Galium sternerii</i> grassland CG2 <i>Festuca ovina</i> – <i>Avenula pratensis</i> grassland				✓				
Upland and lowland mixed ash woodland W8 <i>Fraxinus excelsior</i> - <i>Acer campestre</i> - <i>Mercurialis perennis</i> woodland W9 <i>Fraxinus excelsior</i> - <i>Sorbus aucuparia</i> - <i>Mercurialis perennis</i> woodland		✓		✓	✓	✓		
Vascular Plant assemblage				✓				



Designated Features	Shaw Meadow & Sea Pasture SSSI	Sea Wood SSSI	Skelwith Hill SSSI	Barker Scar SSSI	Humphrey Head SSSI	Arnside Knott SSSI	Far Arnside SSSI	Jack Scout SSSI
<i>Potentilla neumanniana</i> , <i>Sesleria caerulea</i> , <i>Sorbus lancastriensis</i> , <i>Galium sternerii</i>								
Calcareous grassland CG9 <i>Sesleria caerulea</i> – <i>Galium sternerii</i> grassland					✓	✓	✓	
Vascular plant assemblage <i>Aster linosyris</i> , <i>Helianthemum oelandicum</i> ssp. <i>incanum</i> , <i>Hypochaeris maculata</i> <i>Limonium humile</i> , <i>Minuartia verna</i> , <i>Potentilla neumanniana</i> , <i>Sesleria caerulea</i> , <i>Sorbus lancastriensis</i> , <i>Sorbus rupicola</i> , <i>Veronica spicata</i> ssp. <i>hybrida</i> , <i>Euphorbia portlandica</i> , <i>Galium sternerii</i> , <i>Hypericum montanum</i> , <i>Polypodium cambricum</i>					✓			
Dry dwarf shrub heath H10 <i>Calluna vulgaris</i> – <i>Erica cinerea</i> limestone heath						✓		
Vascular plant assemblage <i>Carex ericetorum</i> , <i>Carex digitata</i> , <i>Epipactis atrorubens</i> , <i>Gymnocarpium robertianum</i> , <i>Minuartia verna</i> , <i>Potentilla neumanniana</i> , <i>Sesleria caerulea</i> , <i>Sorbus lancastriensis</i> , <i>Sorbus rupicola</i> , <i>Viola rupestris</i>						✓		
High Brown Fritillary <i>Argynnis adippe</i>						✓		
Northern Brown Argus <i>Aricia artaxerxes</i>						✓		

Designated Features	Shaw Meadow & Sea Pasture SSSI	Sea Wood SSSI	Skelwith Hill SSSI	Barker Scar SSSI	Humphrey Head SSSI	Arnside Knott SSSI	Far Arnside SSSI	Jack Scout SSSI
Pearl Bordered Fritillary <i>Boloria euphrosyne</i>						✓		
Scotch Argus <i>Erebia aethiops</i>						✓		
Grayling <i>Hipparchia semele</i>						✓		
Invertebrate Assemblage (Broad Assemblage Type: F21 grassland and scrub matrix)						✓		
Vascular Plant assemblage: <i>Carex ericetorum</i> , <i>Galium sternerii</i> , <i>Sesleria caerulea</i> , <i>Sorbus lancastriensis</i> , <i>Veronica spicata ssp hybrida</i>							✓	
Lowland calcareous grassland CG2 <i>Festuca ovina</i> - <i>Avenula pratensis</i> grassland CG9 <i>Sesleria albicans</i> - <i>Galium sternerii</i> grassland CG10 <i>Festuca ovina</i> – <i>Agrostis capillaris</i> – <i>Thymus praecox</i> grassland								✓
Vascular plant assemblage Nationally scarce plants: <i>Carex ericetorum</i> , <i>Minuartia verna</i> , <i>Sesleria caerulea</i> <i>Sorbus rupicola</i> and <i>Sorbus lancastrensis</i>								✓