Assessment of England Coast Path proposal Between Silecroft to Silverdale



On Duddon Mosses SAC

January 2020

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Summary

I) Introduction

This is a record of the Habitats Regulations Assessment ('HRA') undertaken by Natural England (in its role of competent authority) in accordance with the assessment and review provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations').

Natural England has a statutory duty under the Marine and Coastal Access Act 2009 to improve access to the English coast. This assessment considers the potential impacts of our detailed proposals for coastal access between Silecroft to Silverdale, on Duddon Mosses Special Area of Conservation (SAC).

The following sites are also affected by our proposals between Silecroft and Silverdale: Morecambe Bay and Duddon Estuary Special Protection Area (SPA), Morecambe Bay SAC, Duddon Estuary Ramsar site. Separate assessments have been written for these sites.

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

www.gov.uk/government/publications/england-coast-path-from-silecroft-to-silverdalecomment-on-proposals

II) Background

The proposed route of the England Coast Path crosses Duddon Mosses SAC, and part of the SAC falls within the proposed coastal margin. Duddon Mosses SAC is a complex of raised bogs.

III) Our approach

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

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

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

The conclusions of this assessment are approved by a member of Natural England staff who is not a member of coastal access programme team and who has responsibility for protected sites. This ensures appropriate separation of duties within Natural England.

IV) Aim and objectives for the design of our proposals

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

The aim of the design of our proposals through Duddon Mosses SAC was to find a route consistent with the approved scheme, without damaging the features of the SAC.

V) Conclusion

We have considered whether our detailed proposals for coastal access between Silecroft and Silverdale might have an impact on Duddon Mosses. In Part C of this assessment we identify some possible risks to the relevant qualifying features and conclude that proposals for coastal access, without incorporated mitigation, may have a significant effect on these sites. In Part D we consider these risks in more detail, taking account of avoidance and mitigation measures incorporated into our access proposal, and conclude that there will not be an adverse effect on the integrity of either site. These measures are summarised in Table 1 below.

Table 1. Summary of risks and consequent mitigation built in to our proposals

Risk to conservation objectives	Relevant design features of the access proposal
Vehicle movements and storage of materials during establishment works, leads to loss of vegetation and erosion of peat (loss of extent of the features and changes in the structure and function (including its typical species) of the features).	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. Exact details of installation and method statements will be provided by the local authority during the establishment phase and will be subject to SSSI consent and a further HRA.
Accidental or deliberate fire, caused by users of the ECP, leads to loss of extent and distribution of the features and change in the structure and function (including its typical species) of the features.	When fire risk is high (as defined in the NNR fire plan) notices may be displayed on the route, asking people to stay on the line of the ECP and not to smoke. If required, a voluntary alternative route could be waymarked using the road or the train between Foxfield and Kirkby-in-Furness. The NNR fire plan will be updated to included management of coastal access rights in case of high fire risk.

VI) Implementation

Once the coastal access proposals have been confirmed by the Secretary of State, we will work with Cumbria County Council to ensure any works on the ground are carried out with due regard to the conclusions of this appraisal and relevant statutory requirements.

VII) Thanks

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

PART A: Introduction and information about the England Coast Path

A1. Introduction

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

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

Where implementation of a Coastal Access Report could impact on a site designated for its international importance for wildlife, called a 'European site¹', a Habitats Regulations Assessment must be carried out.

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

Natural England's approach to ensuring the protection of sensitive nature conservation features under the Coastal Access Programme is set out in the Coastal Access Scheme [Ref 1]. Note that, following a ruling by the Court of Justice of the European Union (Case C-323/17 – usually cited as People over Wind), we have issued a technical memorandum concerning the application of this methodology where assessment under the Habitats Regulations is required.

¹ Ramsar sites and proposed Ramsar sites; potential Special Protection Areas (pSPA); candidate Special Areas of Conservation (cSAC); and sites identified, or required, as compensatory measures for adverse effects on European sites are treated in the same way by UK government policy

A2. Details of the plan or project

This assessment considers Natural England's proposals for coastal access along the stretch of coast between Silecroft and Silverdale. Our proposals to the Secretary of State for this stretch of coast are presented in a series of reports that explain how we propose to implement coastal access along each of the constituent lengths within the stretch.

This assessment is concerned with Coastal Access Report SCS2 Green Road railway station to Jubilee Bridge, Vickerstown. Maps SCS 2a and 2b in this report show relevant details of the access proposals.

Our proposals for coastal access have two main components:

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

England Coast Path

A continuous walking route around the coast – the England Coast Path National Trail - will be established by joining up existing coastal paths and creating new sections of path where necessary. The route will be established and maintained to National Trail quality standards. In certain locations, the coastal path will be able to 'roll back' in response to coastal erosion, solving long-standing difficulties with maintaining a continuous route on this stretch of coast.

Coastal Margin

An area of land associated with the proposed trail will become coastal margin, including all land seawards of the trail down to mean low water. In certain locations, land on the landward side of the trail will also form part of the coastal margin.

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

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

Promotion of the England Coast Path

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

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

Maintenance of the England Coast Path

The access proposals provide for the permanent establishment of a path and associated infrastructure, including additional mitigation measures referred to in this assessment and described in the access proposals. The England Coast Path will be part of the National Trails family of routes, for which there are national quality standards. Delivery is by local partnerships and there is regular reporting and scrutiny of key performance indicators, including the condition of the trail.

Responding to future change

The legal framework that underpins coastal access allows for adaptation in light of future change. In such circumstances Natural England has powers to change the route of the trail and limit access rights over the coastal margin in ways that were not originally envisaged. These new powers can be used, as necessary, alongside informal management techniques and other measures to ensure that the integrity of the site is maintained in light of unforeseen future change.

Establishment of the trail

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

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

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

Duddon Mosses SAC

This bog complex, which lies within the tributary plains of the Duddon estuary, supports a variety of conditions from hand-cut and vigorously regenerating cuttings, to domes of uncut bog, which display significant areas of actively-growing bog vegetation.

The contiguity of the original peat domes has been severed by road construction and agricultural conversion. On some of the component bogs peat-cutting, which has now ceased, has left a drained surface which is only partially active raised bog. The degraded raised bog is mostly dominated by purple moor-grass *Molinia caerulea*, although pockets of raised bog plants including bog-mosses *Sphagnum spp*. offer good prospects for regeneration, provided the hydrology is repaired. Degraded bog also occurs around the edges of discrete domes of active bog due to deep regional drainage and agricultural use of the surrounding land.

Table 2 . Qualifying features of Duddon Mosses SAC



Map showing Duddon Mosses SAC and the proposed route of the ECP and optional alternative route



B2. European Site Conservation Objectives (including supplementary advice)

Natural England provides advice about the Conservation Objectives for European Sites in England in its role as the statutory nature conservation body. These Objectives (including any Supplementary Advice which may be available) are the necessary context for all HRAs.

The overarching Conservation Objectives for every European Site in England are to ensure that the integrity of each site is maintained or restored as appropriate, and that each site contributes to achieving the aims of the Habitats Regulations, by either maintaining or restoring (as appropriate):

• The extent and distribution of their qualifying natural habitats,

• The structure and function (including typical species) of their qualifying natural habitats,

- The supporting processes on which their qualifying natural habitats rely,
- The supporting processes on which the habitats of their qualifying features rely,
- The population of each of their qualifying features, and
- The distribution of their qualifying features within the site.

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

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

http://publications.naturalengland.org.uk/publication/5497657652936704

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

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

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

Conclusion:

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

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

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

In accordance with case law, this HRA has considered an effect to be 'likely' if it 'cannot be excluded on the basis of objective information' and is 'significant' if it 'undermines the conservation objectives'. In accordance with Defra guidance on the approach to be taken to this decision, in plain English, the test asks whether the plan or project 'may' have a significant effect (i.e. there is a risk or a possibility of such an effect).

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

Each of the project elements has been tested in view of the European Site Conservation Objectives and against each of the relevant European site qualifying features. An

assessment of potential effects using best available evidence and information has been made.

C2.1 Risk of Significant Effects Alone

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

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

Table 3. Assessment of likely significant effects alone for Duddon Mosses SAC

Site: Duddon Mosses SAC			
Feature (s)			
7110 Active r	aised bogs		
7120 Degrad	ed raised bogs s	till capable of natural regeneration	
Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Loss of habitat.	Habitat could be covered by path surfacing and other infrastructure	The proposed flagstone path surfacing, additional surfacing under two kissing gates, two small sleeper bridges and associated way- marker posts would cover 377 m ² of habitat.	Yes
Trampling of vegetation and underlying peat.	Bog vegetation can be damaged and destroyed by trampling. If vegetation is lost, this will lead to erosion of the underlying peat.	 England Coast Path The ECP is aligned at the seaward edge of Duddon Mosses SAC, just landward of the railway line, in an area where there is currently no or very low levels of access. It is aligned on the SAC for a length of 529m. Flagstone path surfacing is proposed, in order to keep people on the line of the trail and to prevent trampling of vegetation and subsequent erosion of peat. Optional Alternative Route A high tide optional alternative route is aligned on an existing public right of way which runs through the SAC. No surface improvements are proposed, the only infrastructure proposed is way-marking. This public right of way (PRoW) is already used by walkers as a circular route from Foxfield, and it is expected that there will be negligible change in access on it as a result of our proposals. Therefore there will not be an increase in trampling on the PRoW as a result of our proposals. Coastal Margin The coastal margin extends landward of the ECP. This is because the site is currently dedicated as open access land under CRoW 2000, as part of Natural England's NNR estate. Natural England's policy is to rededicate any such land as coastal margin under the Marine 	No The path surfacing will prevent loss of underlying peat. There is a very low risk of increased trampling on the optional alternative route or within the coastal margin.

Damage to the vegetation and underlying peat during establishme nt works.	Bog vegetation can be damaged and destroyed by the movement of vehicles across the site, and by inappropriate storage of materials.	and Coastal Access Act 2009, where such land falls within or otherwise connects with the proposed coastal margin, once the proposals are approved. In the case of Duddon Mosses NNR that does not apply to the whole site as it is made up of separate units, so only the area which is contiguous with the default coastal margin and trail, as mapped, will be affected. CRoW access rights will automatically be replaced by new coastal access rights for all other areas of CRoW access land that falls within the approved coastal margin. This area of landward margin is already open access land under CRoW 2000, with very low levels of existing use. The raised bog is very wet and a difficult and treacherous surface to walk on, and therefore not attractive to walkers. The most pleasant route for walkers through this area will be the proposed ECP. Therefore it is not expected that access to the coastal margin will increase. There is a risk that bog vegetation and underlying peat could be damaged during establishment works.	Yes
Increased fire risk.	Deliberate and accidental fire is a serious risk and dry peat can burn for protracted periods.	Fire risk There is a high risk of damage by fire. Provisions for exclusion in extreme weather conditions at times of high fire risk are covered under S25 of the CROW Act. These restrictions only relate to the coastal margin; there are no powers to restrict access to the ECP due to high fire risk.	Yes

Conclusion:

- The plan or project alone is likely to have a significant effect on the following qualifying features:
- 7110 Active raised bogs
- 7120 Degraded raised bogs still capable of natural regeneration

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

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

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

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

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

In C2.1 the qualifying features on which the access proposals might have an effect alone are identified – these are considered further in Part D of this assessment. No other appreciable risks arising from the access proposals were identified that have the potential to act in combination with similar risks from other proposed plans or projects to also become significant. It has therefore been excluded, on the basis of objective information, that the project is likely to have a significant effect in-combination with other proposed plans or projects.

C3. Overall Screening Decision for the Plan/Project

On the basis of the details submitted, Natural England has considered the plan or project under Regulation 63(1)(a) of the Habitats Regulations and made an assessment of whether it will have a likely significant effect on a European site, either alone or in combination with other plans and projects.

In light of sections C1 and C2 of this assessment above, Natural England has concluded:

As the plan or project is likely to have significant effects (or may have significant effects) on some or all of the Qualifying Features of the European Site(s) 'alone', further appropriate assessment of the project 'alone' is required.

PART D: Appropriate Assessment and Conclusions on Site Integrity

D1. Scope of Appropriate Assessment

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

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

Environmental	Qualifying Feature(s) affected	Risk to Conservation Objectives
pressure		
Loss of extent of habitat due to path surfacing and other infrastructure.	 7110 Active raised bogs 7120 Degraded raised bogs still capable of natural regeneration 	Path surfacing and other infrastructure leads to loss of extent of the features.
Damage to the vegetation and underlying peat during establishment works.	 7110 Active raised bogs 7120 Degraded raised bogs still capable of natural regeneration 	Vehicle movements and storage of materials during establishment works, leads to loss of vegetation and erosion of peat (loss of extent of the features and changes in the structure and function (including its typical species) of the features).
Increased fire risk.	 7110 Active raised bogs 7120 Degraded raised bogs still capable of natural regeneration 	Accidental or deliberate fire, caused by users of the ECP, leads to loss of extent and distribution of the features and change in the structure and function (including its typical species) of the features.

Table 4. Scope of Appropriate Assessment

D2. Contextual statement on the current status, influences, management and condition of the European Site and those qualifying features affected by the plan or project

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

('Habitats Regulations Assessment')

Duddon Mosses SAC is located in south Cumbria, on the north-eastern coastal plain of the Duddon Estuary and the river flood plain of Kirkby Pool.

The site comprises the central parts of a series of raised bogs, formerly lying within a wetland complex which would have surrounded the bogs with fen, swamp and transitions to estuarine and river habitats, but now acting as an island of wetland habitat within a predominantly intensively managed agricultural landscape.

Historic peat cutting (including slumping and cracking of peat behind faces) and drainage are leading to ongoing changes to the peat and vegetation. There is a time-lag between degradation of the peat and vegetation response. In addition to this, the water table is too low in unmanaged areas to support desired bog vegetation and conserve the peat resource. This issue has been partly addressed via hydrological restoration works over the last 15 years.

Lowering of the water table allows trees to colonise the bog, leading to further negative impacts on hydrology and vegetation. This positive feedback effect in favour of tree cover leads to increasing negative effects on vegetation and peat.

Rhododendron is not sufficiently controlled on the site, and its encroachment is having a severe impact on bog vegetation and peat condition.

More frequent heavy rainfall in recent years is leading to flooding on adjacent and nearby land.

Nitrogen deposition exceeds site critical loads but any impacts are currently masked by unfavourable hydrology.

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

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

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

D3.1 Design of the access proposal to address possible risks

I) Baseline situation

Duddon Mosses is an NNR and has been designated as open access land. The NNR has a promoted walking route which follows a boardwalk across the bog. Due to the remote nature of the site and limited parking, use of this route is fairly low. Very few walkers venture onto the open access land, because it is mainly deep peat, wet and boggy and difficult to walk across.

There is currently no path where we are proposing to align the ECP, and current use of this area by walkers is very low, possibly non-existent.

II) Detailed design features of the access proposal

The proposed ECP is aligned at the seaward edge of Duddon Mosses, just landward of the railway line. It is aligned on the SAC for a length of 529m.

In order to construct the path the line of the route will be strimmed to remove grass tussocks, some trees will be felled and stone flagging will be laid along the entire route through the SAC.

Two new kissing gates, with stone flagging underneath to prevent surface erosion, associated way-marking and two small bridges over water channels / bunds will be installed.

Sandstone or other pH acidic or neutral stone will be used.

Stone flags and other materials will be transported to site along the route of the ECP using low ground-pressure vehicles. Materials will be stored off site. Exact details of installation and method statements will be provided during the establishment phase and will be subject to SSSI consent and a further HRA.

An area of the SAC will become landward coastal margin; this land is already open access land under the Countryside and Rights of Way Act 2000, and the reason for this change is explained in table 3 (Assessment of likely significant effects alone for Duddon Mosses SAC) above.

See map SCS 2a in coastal access report SCS 2 Green Road railway station to Jubilee Bridge, Vickerstown, for full details of the proposals.

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

A new surfaced section of path will be created enabling people to walk across Duddon Mosses SAC just landward of the railway line. The ECP is aligned in an area with very low / no existing access. The creation of a path plus promotion as a national trail is likely to lead to a large increase in the level of use. It is unlikely to affect use of the existing promoted walking route within the SAC, as the ECP and the existing promoted route are at separate

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

Habitats Regulations 2017 (as amended) ('Habitats Regulations Assessment')

locations within the SAC. The two routes will not be linked, other than via the nearby minor road, and will not create a circular route for walkers.

Loss of habitat due to path surfacing and associated infrastructure work

The entire route through the SAC including the area under kissing gates will be surfaced using flagstones. The flagstone path surface will protect the underlying peat from erosion and will prevent the path from braiding and widening as people seek to avoid wet areas.

The proposed path surfacing, additional surfacing under two kissing gates, two small sleeper bridges and associated way-marker posts would cover 377m² of ground area.

This approach to footpath management on peat habitats, using flagstone surfacing, has been used successfully through SAC habitats on the Pennine Way.

The loss of habitat is considered to be trivial because it represents only 0.0116% of the area of the lowland raised bog on the SAC. As the proposed route is at the very extreme of the current extent of the site, the surfacing will not affect the hydrology or natural processes on the site.

Due to the inaccessible nature of the coastal margin, it is very likely that people will stick to the line of the ECP, so any trampling damage and loss of vegetation would occur only on the route of the ECP, if exposed.

This area of landward coastal margin is already open access land under CRoW 2000, with very low levels of existing use. The raised bog is very wet and presents a difficult and treacherous surface to walk on, and therefore not attractive to walkers. The most pleasant route for walkers through this area will be the proposed ECP. Therefore it is not expected that access to the landward coastal margin will increase.

The seaward coastal margin within the SAC is confined to a very narrow strip of land between the ECP and the railway line. Access is not expected to increase in this area, as the path is adjacent to the railway fence, which will provide a barrier to walkers.

Fire risk

There is a high risk of damage by fire. Provisions for exclusion in extreme weather conditions at times of high fire risk are covered under s25 of the CROW Act. These restrictions only relate to the coastal margin; it is not possible to close the ECP due to high fire risk. When fire risk is high (as defined in the NNR fire plan) notices may be displayed on the route, asking people to stay on the line of the ECP and not to smoke. If required, a voluntary alternative route could be waymarked using the road or the train between Foxfield and Kirkby-in-Furness. The NNR fire plan will be updated to included management of coastal access rights in case of high fire risk.

Using the CRoW exclusions, signage and a voluntary alternative route when required will significantly reduce the risk of damage by fire.

D3.2 Assessment of potentially adverse effects (taking account of any additional mitigation measures incorporated into the design of the access proposal) alone

Risk to conservation objectives	Relevant design features of the access proposal	Can 'no adverse effect' on site integrity be ascertained? (Yes/No) Give reasons.	Residual effects?
Path surfacing and other infrastructure leads to loss of extent of the features.	The entire route through the SAC including the area under kissing gates will be surfaced using flagstones.	Yes. The stone path surface will protect the underlying peat from erosion and will prevent the path from braiding and widening as people seek to avoid wet areas. The loss of habitat associated with the path surfacing is considered to be trivial because it represents only 0.0116% of the area of the lowland raised bog on the SAC. The surfacing will not affect the hydrology or natural processes on the site.	Yes
Vehicle movements and storage of materials during establishment works, leads to loss of vegetation and erosion of peat (loss of extent of the features and changes in the structure and function (including its typical species) of the features).	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. Exact details of installation and method statements will be provided by the local authority during the establishment phase and will be subject to SSSI consent and a further HRA.	Yes. We have ascertained that it is possible to construct the path without damaging surrounding areas of vegetation and underlying peat, if correct methods are used during establishment.	No
Accidental or deliberate fire, caused by users of the ECP, leads to loss of extent and distribution of the features and change	When fire risk is high (as defined in the NNR fire plan) notices may be displayed on the route, asking people to stay on the line of the ECP and not to smoke. If	Yes. Using the CRoW exclusions, signage and a voluntary alternative route when required will significantly reduce the risk of fire.	No

 Table 5. Assessment of adverse effect on site integrity alone

in the structure and	required, a voluntary	
function (including its	alternative route could be	
typical species) of the	waymarked using the road or	
features.	the train between Foxfield	
	and Kirkby-in-Furness. The	
	NNR fire plan will be updated	
	to included management of	
	coastal access rights in case	
	of high fire risk.	

Conclusion:

- The following risks to achieving the conservation objectives identified in D1 are effectively addressed by the proposals and no adverse effect on site integrity (taking into account any incorporated mitigation measures) can be concluded:
- Vehicle movements and storage of materials during establishment works, leads to loss of vegetation and erosion of peat (loss of extent of the features and changes in the structure and function (including its typical species) of the features).
- Accidental or deliberate fire, caused by users of the ECP, leads to loss of extent and distribution of the features and change in the structure and function (including its typical species) of the features.

The following risks to achieving the conservation objectives identified in D1 are effectively addressed by the proposals and no adverse effect on site integrity (taking into account any incorporated mitigation measures) can be concluded, although there is some residual risk of insignificant impacts which will be considered further in combination with other plans and projects:

• Path surfacing and other infrastructure leads to loss of extent of the features.

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

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

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

Step 1 – Are there any appreciable risks from the access proposals that have been identified in D3.3 as not themselves considered to be adverse alone?

Natural England considers that in this case the potential for adverse effects from the plan or project has not been wholly avoided by the incorporated or additional mitigation measures outlined in section D3. It is therefore considered that there are residual and appreciable effects likely to arise from this project which have the potential to act in-combination with those from other proposed plans or projects. These are:

• Path surfacing and other infrastructure leads to loss of extent of the features.

Competent Authority	Plan or project	Have any insignificant and combinable effects been identified?
South Lakeland District Council	South Lakeland Local Plan - Development Management Policies Development Plan Document (DPD),	No. The HRA associated with the plan considers the potential impacts of habitat loss on designated sites from new development. There are no development sites allocated within the Duddon Mosses SAC.
	Land Allocations DPD, Arnside and Silverdale AONB DPD and Core Strategy	It was concluded that there would be no adverse effect on integrity, and with the mitigation measures in place no residual effects were identified.
Lake District National Park (LDNPA)	Lake District Local Plan	No. A review of the Local Plan began in 2016, it was submitted for examination to the Secretary of State in August 2019. At the time of writing this assessment no HRA has been submitted. The Appropriate Assessment associated with the plan, currently under consultation before submission, considers the potential impacts of habitat loss. There are policies

Step 2 – Have any combinable risks been identified for other live plans or projects?

Assessment of Coastal Access proposals under regulation 63 of the

Habitats Regulations 2017 (as amended) ('Habitats Regulations Assessment')

		 within the Local Plan which aim to mitigate any effects, in particular Policy 04: Biodiversity and geodiversity aims to protect biodiversity and deliver biodiversity net gain, through a mitigation hierarchy being applied to all proposals. There are no development sites allocated within the Duddon Mosses SAC. It was concluded that there would be no adverse effect on integrity, and with the mitigation measures in place no residual effects were identified.
Copeland	Copeland Local Plan	No. The HRA associated with the Local Plan has not
Borough Council	2013-2028 - Local	identified any likely significant effects that the Core
	Plan 2013-2028	Strategy and Development Management Policies
	Core Strategy and Development	would have on the integrity of the Duddon Mosses SAC. It does however, identify where further Habitats
	Management	Regulations Assessment and possibly Appropriate
	Policies, and Local	Assessments are likely to be needed when the Site
	Plan 2013-2028	Allocations Policies and associated maps are
	Proposals Map and	prepared. Site by site Assessments will need to be
	Local Plan 2001-	considered when planning application proposals come
	2016 'Saved' Policies	forward. The Development Management Policies document makes it clear that any development that
		would be likely to have an adverse impact on the
		integrity of a European designated site would not be supported.
Cumbria County	Cumbria Minerals	No. The HRA associated with the plan considers the
Council	and Waste Local	potential impacts of habitat loss on the Duddon
	Plan 2015-2030	Mosses SAC from mineral workings and waste
		management developments.
		There are no site allocations identified within the plan
		that have the potential to interact with the SAC.

In light of this review, we have not identified any insignificant and combinable effects that are likely to arise from other plans or projects.

Step 3 – Would the combined effect of risks identified at Steps 1 and 2 be likely to have an adverse effect on site integrity?

In light of the conclusions of Steps 1 & 2, no further in-combination assessment is required.

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

('Habitats Regulations Assessment')

D5. Conclusions on Site Integrity

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

Natural England has concluded that:

It can be ascertained, in view of site conservation objectives, that the access proposal (taking into account any incorporated avoidance and mitigation measures) will not have an adverse effect on the integrity of Duddon Mosses SAC either alone or in combination with other plans and projects.

PART E: Permission decision with respect to European Sites

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

We, Natural England, are satisfied that our proposals to improve access to the English coast between Silecroft and Silverdale are fully compatible with the relevant European site conservation objectives for Duddon Mosses SAC.

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

Certification

Assessment prepared by:	Sarah Wiseman	Coastal Access Lead Adviser
Date:	04/12/2019	
HRA approved by:	Mark Hesketh	Deputy Area Manager
Date:	04/12/2019	

References to evidence

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