



Access and Sensitive Features Appraisal Coastal Access Programme

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

Title

**APPRAISAL OF POSSIBLE ENVIRONMENTAL IMPACTS OF
PROPOSALS FOR ENGLAND COAST PATH AT GIBRALTAR POINT**

Date

January 2018

Contents and arrangement of this report

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

The report is arranged in the following sections:

1. Summary	<i>A summary of our conclusions, including key mitigation measures built into our proposals.</i>
2. Scope	<i>In this part of the document we define the geographic extent for the appraisal and the features that are included.</i>
3. Baseline conditions and ecological sensitivities	<i>In this part of the document we identify which features might be sensitive to changes in access, and rule out from further consideration those that are not.</i>
4. Potential for interaction	<i>In this part of the document we identify places where sensitive features are present and whether there could, or will not, be an interaction with proposed changes in access.</i>
5. Assessment of impact-risk and incorporated mitigation measures	<i>In this part of the document we look in more detail at sections of coast where there could be an interaction between the access proposal and sensitive features. We discuss possible risks to sensitive features and explain how these have shaped the design of our proposals and/or led to the inclusion of specific mitigation measures.</i>
6. Conclusions	<i>In this part of the document we record our formal conclusions, including those for our Habitats Regulations Assessment.</i>
7. Establishing and maintaining the England Coast Path	<i>In this part of the document we describe how the access proposal would be implemented and arrangements for ongoing management and maintenance once coastal access rights are in place.</i>

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

<https://www.gov.uk/government/collections/england-coast-path-sutton-bridge-to-skegness>

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1. Our approach

Natural England's approach to protection of sensitive features under the Coastal Access Programme is set out in section 4.9 Coastal Access: Natural England's Approved Scheme 2011¹. We call our internal processes to support this approach 'Access and Sensitive Features Appraisal' or ASFA.

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

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

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

2. Scope

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

2.1 Geographic extent

Saltfleetby-Theddlethorpe to Gibraltar Point Special Area Conservation (SAC); Gibraltar Point Special Protection Area (SPA); Gibraltar Point RAMSAR & The Wash SPA; The Wash and North Norfolk Coast Marine SAC² - Aerial & mapping WebMap²⁹



Gibraltar Point – zones of habitat vegetation



Croftmarsh Local Nature Reserve



Gibraltar Point - Land under Countryside Stewardship



Gibraltar Point NNR boundary



2.2 Designated sites

Sites of Special Scientific Interest (SSSI)**Cross reference** - where applicable

2.4 Designated features

Features – of the designated sites listed in 2.2	SPA	SAC	SSSI	Ramsar	NNR
Gibraltar Point SPA					
A141 <i>Pluvialis squatarola</i> ; Grey plover (Non-breeding)	X				X
A144 <i>Calidris alba</i> ; Sanderling (Non-breeding)	X				X
A157 <i>Limosa lapponica</i> ; Bar-tailed godwit (Non-breeding)	X				X
A195 <i>Sterna albifrons</i> ; Little tern (Breeding)	X				X
Saltfleetby-Theddlethorpe dunes to Gibraltar Point SAC					
2120 "Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")"		X	X		X
2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")" * Priority feature		X	X		X
2160 Dunes with <i>Hippophae rhamnoides</i>		X	X		X
2190 Humid dune slacks		X	X		X
2110 Embryonic shifting dunes		X	X		X
The Wash SPA					
A037 <i>Cygnus columbianus bewickii</i> ; Bewick's swan (Non-breeding)	X		X		X
A040 <i>Anser brachyrhynchus</i> ; Pink-footed goose (Non-breeding)					
A046a <i>Branta bernicla bernicla</i> ; Dark-bellied brent goose (Non-breeding)					
A048 <i>Tadorna tadorna</i> ; Common shelduck (Non-breeding)					
A050 <i>Anas penelope</i> ; Eurasian wigeon (Non-breeding)					
A051 <i>Anas strepera</i> ; Gadwall (Non-breeding)					
A054 <i>Anas acuta</i> ; Northern pintail (Non-breeding)					
A065 <i>Melanitta nigra</i> ; Black (common) scoter (Non-breeding)					
A067 <i>Bucephala clangula</i> ; Common goldeneye (Non-breeding)					
A130 <i>Haematopus ostralegus</i> ; Eurasian oystercatcher (Non-breeding)					
A141 <i>Pluvialis squatarola</i> ; Grey plover (Non-breeding)					
A143 <i>Calidris canutus</i> ; Red knot (Non-breeding)					
A144 <i>Calidris alba</i> ; Sanderling (Non-breeding)					
A149 <i>Calidris alpina alpina</i> ; Dunlin (Non-breeding)					
A156 <i>Limosa limosa islandica</i> ; Black-tailed godwit (Non-breeding)					
A157 <i>Limosa lapponica</i> ; Bar-tailed godwit (Non-breeding)					
A160 <i>Numenius arquata</i> ; Eurasian curlew (Non-breeding)					
A162 <i>Tringa totanus</i> ; Common redshank (Non-breeding)					
A169 <i>Arenaria interpres</i> ; Ruddy turnstone (Non-breeding)					
A193 <i>Sterna hirundo</i> ; Common tern (Breeding)					
A195 <i>Sterna albifrons</i> ; Little tern (Breeding)					
Waterbird assemblage	X		X		X

The Wash and North Norfolk Coast SAC					
1110 Sandbanks which are slightly covered by sea water all the time		x			
1140 Mudflats and sandflats not covered by seawater at low tide		x			
1160 Large shallow inlets and bays		x			
1170 Reefs		x			
1310 Salicornia and annual colonizing mud and sand		x			
1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)		x			
1420 Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)		x			
1150 Coastal lagoons *Priority feature		x			
1365 Harbour seal <i>Phoca vitulina</i>		x			
1355 Otter <i>Lutra lutra</i>		x			
Gibraltar Point Ramsar					
Ramsar criterion 1 The dune and saltmarsh habitats present on the site are representative of all the stages of colonisation and stabilisation. There is a fine example of freshwater marsh containing sedges <i>Carex</i> spp., rushes <i>Juncus</i> spp., and ferns, including adder's-tongue fern <i>Ophioglossum vulgatum</i> . Also most northerly example of nationally rare saltmarsh/dune communities containing sea heath <i>Frankenia laevis</i> , rock sea lavender <i>Limonium binervosum</i> and shrubby seablite <i>Suaeda vera</i>			X	X	X
Ramsar criterion 2 Supports an assemblage of wetland invertebrate species of which eight species are listed as rare in the British Red Data Book and a further four species listed as vulnerable.			X	X	X
Ramsar criterion 5 Assemblages of international importance: Species with peak counts in winter: 53072 waterfowl (5 year peak mean 1998/99-2002/2003)			X	X	X
Ramsar criterion 6 – species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in spring/autumn: Grey plover , <i>Pluvialis squatarola</i> , E Atlantic/W Africa –wintering 2793 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3) Sanderling , <i>Calidris alba</i> , Eastern Atlantic 971 individuals, representing an average of 4.7% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak) Bar-tailed godwit , <i>Limosa lapponica lapponica</i> , W Palearctic 3468 individuals, representing an average of 2.8% of the population (5 year peak mean 1998/9-2002/3) Species with peak counts in winter: Dark-bellied brent goose, <i>Branta bernicla bernicla</i> , 682 individuals, representing an average of 0.6% of the GB population (5 year peak mean 1998/9- 2002/3) Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in spring/autumn:			X	X	X

[illegible]

Bar-tailed godwit , <i>Limosa lapponica lapponica</i> , W Palearctic 16546 individuals, representing an average of 13.7% of the population (5 year peak mean 1998/9-2002/3)			X		
Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in spring/autumn: Ringed plover , <i>Charadrius hiaticula</i> , Europe/Northwest Africa 1500 individuals, representing an average of 2% of the population (5 year peak mean 1998/9-2002/3) Black-tailed godwit , <i>Limosa limosa islandica</i> , Iceland/W Europe 6849 individuals, representing an average of 19.5% of the population (5 year peak mean 1998/9-2002/3) Species with peak counts in winter: European golden plover , <i>Pluvialis apricaria apricaria</i> , P. a. <i>altifrons</i> Iceland & Faroes/E Atlantic 22033 individuals, representing an average of 2.3% of the population (5 year peak mean 1998/9-2002/3) Northern lapwing , <i>Vanellus vanellus</i> , Europe –breeding 46422 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3)			X X X X		

2.5 Other features about which concerns have been expressed – where applicable

Feature	Conservation interest
	<p>Croftmarsh LNR is located adjacent to Gibraltar Point SSSI; it is owned and managed by The Lincolnshire Wildlife Trust (LWT) for nature conservation. Croftmarsh is part of a depleting suite of wet grazing fields that once were part of the Lincolnshire landscape. Historically, these fields were often composed of heavy soil, difficult to work on but once land drainage was installed along with modern farming equipment these fields were turned into arable. The birds use these fields to roost, breed and feed without disturbance from gas guns or other bird scaring practises. It is particularly favoured by the birds due to the close proximity of The Wash with its saltmarsh and mudflat. The 44 ha fields are known as Tennyson's Sand, Moat Field, Bullock field and Jackson's Marsh they sit within the National Character Area profile as: Lincolnshire Coast and Marshes³ and they are managed as part of the Coastal Grazing Marshes Project⁴.</p> <p>The Higher Tier management is designed to maintain these fields as wet grassland, through the careful sward management and the implementation of suitable grazing regime. Several shallow scrapes were created to recreate the condition of a natural uneven landscape. Pools are naturally filled and provide the ideal condition for wading birds to breed and roost in time of high spring tide. Successful Avocet fledglings have been recorded since 2008 and Common tern have also been regularly raised chicks since 2007. Both Avocets and Common terns are Amber within the UK conservation Status⁵.</p> <p>The promotion of rough grassland provides the suitable conditions for particular target species such as curlew and many invertebrate species but the primary species of interest are the wintering Brent geese. Bird monitoring has been undertaken by the Lincolnshire Wildlife Trust since the scrapes were created in 2005 and the Brent geese have readily moved into the fields, and very large flocks can regularly be seen.</p> <p>More recently Little egret <i>Egretta garzetta</i> have begun to colonise around the Croftmarsh plantation and can be seen all year round. They are particularly interested in roosting on the hedges located next to the sea wall and there are expectations that they will be breeding at some point in the near future (Kevin Wilson personal conversation).</p> <p>During the relandscaping of Croftmarsh, the public was placed at the heart of it with the introduction of a footpath leading to 3 bird hides from which visitors can appreciate the full panoramic view of the scrapes and bird activity.</p>

3. Baseline conditions and ecological sensitivities

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

3.1 Composition of feature group – where applicable

Composition of feature group –SPA
Breeding and over wintering
Current conservation status and use of the site
N/A
Ecological sensitivities to changes in access
<p>Gibraltar Point SPA</p> <ul style="list-style-type: none"> <u>Little tern</u> at Gibraltar Point are breeding during the summer season; arriving in April and will be nesting until July. Depending on the weather condition one brood will fledge by August. The species breeds on the strandline and is extremely sensitive to disturbance from public, dogs and predation. Direct disturbance; the strandline is a well favoured zone by walkers. Eggs being well camouflaged can easily be missed and trampled. Predation from other species also lead to a reduction of fledglings. Indirect impact from tidal inundation, coastal changes with the loss of suitable strandline sediment. The population at Gibraltar Point has suffered from both direct and indirect impact and the number of breeding pairs has declined in recent years, although 2014 and 2015 had very high fledging level with an 89.6% and 90.9% success rate (Kevin Wilson Little tern productivity). A European funded Monitoring Project⁶ LIFE programme was implemented in 2013, which now includes a temporary a fencing to protect the nesting site and a seasonal warden is employed to monitor and record the numbers of breeding pairs, fledglings and fledged individuals. <u>Bar-tailed godwit</u> <i>Calidris alba</i>; <u>Sanderling</u> <i>Limosa lapponica</i>; <u>Grey Plover</u> <i>Pluvialis Squatarola</i> Overwintering flocks of birds roost at Gibraltar Point, which is also a supporting roosting notified site for The Wash SPA⁷. Although, only the above named species met the criteria number for Gibraltar Point SPA notification, many other birds from The Wash overwintering assemblage, roost at Gibraltar Point (Kevin Wilson communique). The roost is located on the foreshore between upper saltmarsh and dune formation. Non-breeding birds response to disturbance can be variable depending on the species, the pressure that the birds face and the close proximity of the threat⁸. Walkers but primarily dog walkers form the greatest majority of disturbance^{9, 10} and repeated disturbance may lead to the birds losing fitness and condition that could lead to potential mortality. This is particularly acute at times of high energetic demand whilst feeding during severe weather, or at times of active migration^{10, 11}.

3.2 Composition of feature group – where applicable

Composition of feature group – Dunes system Gibraltar Point

Composition of feature group – Saltmarsh The Wash

Annex I habitats that are a primary reason for selection of this site – Gibraltar Point

2120 "Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")"

The dune system at Saltfleetby–Theddlethorpe Dunes and Gibraltar Point contains good examples of the shifting dunes. At this site the *Ammophila* dominated dunes are associated with lyme-grass *Leymus arenarius* and sand sedge *Carex arenaria*. These shifting dunes are part of a successional transition with 2130 Fixed dunes with herbaceous vegetation and 2160 Dunes with *Hippophae rhamnoides*.

2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")" * Priority feature

Within this dune complex on the east coast of England there are extensive areas of fixed dune vegetation within largely intact geomorphologically-active systems, with representation of early successional stages on the seaward side, and more stable areas. The lime-rich dunes support a rich and diverse flora, dominated in places by red fescue *Festuca rubra* and with unusual species including pyramidal orchid *Anacamptis pyramidalis*, bee orchid *Orchis apifera*, sea-holly *Eryngium maritimum*, lesser meadow-rue *Thalictrum minus* and sea campion *Silene maritima*. The fixed dunes are part of a successional transition, and the rapidly-accreting dunes on the seaward sand bars and shingle banks make this an important site for research into the processes of coastal development.

2160 Dunes with *Hippophae rhamnoides*

This site supports a good example of Dunes with *Hippophae rhamnoides* in the main part of its natural range in the UK. This habitat develops on dune areas and is present in a range of successional stages from early colonisation to mature scrub associated with other species such as elder *Sambucus nigra*, hawthorn *Crataegus monogyna* and ivy *Hedera helix*, typically associated with an understorey of ruderal species. These stands of scrub are important for both migratory and breeding birds.

2190 Humid dune slacks

The Humid dune slacks at this site are part of a successional transition between a range of dune features, and some have developed from saltmarsh to freshwater habitats after becoming isolated from tidal inundation by sand deposition. There is a range of different communities present, many of which are species-rich. The species present depend on the wetness of the slack, its location within the system and the management history. Some of the drier slacks support a very wide range of species; this has been encouraged by management. The wetter slacks often have more permanent standing water and are composed of stands of sedges and rushes.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

2110 Embryonic shifting dunes

Annex II species that are a primary reason for selection of this site

Not applicable.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable

Annex I habitats that are a primary reason for selection of this site – The Wash

1310 Salicornia and other annuals colonizing mud and sand

The largest single area of this vegetation in the UK occurs at this site on the east coast of England, which is one of the few areas in the UK where saltmarshes are generally accreting. The proportion of the total saltmarsh vegetation represented by Salicornia and other annuals colonising mud and sand is high because of the extensive enclosure of marsh in this site. The vegetation is also unusual in that it forms a pioneer community with common cord-grass *Spartina anglica* in which it is an equal component. The inter-relationship with other habitats is significant, forming a transition to important dune, salt meadow and halophytic scrub communities.

1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

This site on the east coast of England is selected both for the extensive ungrazed saltmarshes of the North Norfolk Coast and for the contrasting, traditionally grazed saltmarshes around the Wash. The Wash saltmarshes represent the largest single area of the habitat type in the UK. The Atlantic salt meadows form part of a sequence of vegetation types that are unparalleled among coastal sites in the UK for their diversity and are amongst the most important in Europe. Saltmarsh swards dominated by sea-lavenders *Limonium* spp. are particularly well-represented on this site.

1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*)

The Wash and North Norfolk Coast, together with the North Norfolk Coast, comprises the only area in the UK where all the more typically Mediterranean species that characterise Mediterranean and thermo-Atlantic halophilous scrubs occur together. The vegetation is dominated by a shrubby cover up to 40 cm high of scattered bushes of shrubby sea-blite *Suaeda vera* and sea-purslane *Atriplex portulacoides*, with a patchy cover of herbaceous plants and bryophytes. This scrub vegetation often forms an important feature of the upper saltmarshes, and extensive examples occur where the drift-line slopes gradually and provides a transition to dune, shingle or reclaimed sections of the coast. At a number of locations on this coast perennial glasswort *Sarcocornia perennis* forms an open mosaic with other species at the lower limit of the sea-purslane community

Current conservation status and use of the site

Unfavourable recovering – Gibraltar Point Dune unit 1

Favourable – The Wash saltmarsh

Ecological sensitivities to changes in access

Shifting Dunes and Embryonic dune are created from sediment drift that becomes trapped in dune colonising vegetation. These dunes will become affected if the sand is not allowed to move freely and through trampling, or if deep rooted vegetation like sea buckthorn, colonises the shifting dune.

Fixed Coastal dune; Dune with sea buckthorn are less sensitivity to some trampling, as some footfall will inhibit scrub/woody vegetation growth to take hold. Zones of bare sand without trampling are also an important habitat for bees and other invertebrates. The dunes system at Gibraltar Point is also part of a natural coastal defence system, which could be weakened by compaction and by the formation of ruts within the dune system; therefore creating weaker points within the flood defence.

Humid dune slacks are extremely rare habitat in the UK, covering less than 18.12 km² and has been estimated to less than 2 km² of surface area in England¹². The slacks are seasonally wet but they can also be wet all year and often populated by a fragile vegetation community which are rich with both invertebrate and vertebrate that would also be affected by regular trampling over all year around.

The saltmarsh vegetation consists of zones of natural transition from colonising mudflat species to upper saltmarsh communities with some transitional zones of dune formation.

Gibraltar Point saltmarsh is protected under The Wash and North Norfolk marine SAC, which represent the largest pioneer saltmarsh in the UK and has the greatest extent¹³ of saltmarsh. It also provides an important feeding area for a large numbers of wading birds that use both sites during migration and overwinter¹⁴.

3.3 Composition of feature group – where applicable

Breeding, roosting, feeding and over wintering birds on Croftmarsh Local Nature Reserve
Roosting; feeding; breeding
`Current conservation status and use of the site
Supporting habitat for adjacent SPA, SSSI, NNR
Ecological sensitivities to changes in access
<p>Croftmarsh (LNR) qualifies as a supporting habitat for the birds species covered under the notification for The Wash SPA, Gibraltar Point SSSI, The Wash SSSI and Gibraltar Point NNR.</p> <p>Specific species have been identified see Annex 1 for which Croftmarsh LNR can be defined as a zone of regular roosting and up and coming breeding site.</p> <p>The England Coast Path route has been designed to avoid any cause of disturbance to the birds populating Croftmarsh throughout the year.</p>

4. Potential for interaction

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

4.1 River Steeping to Gibraltar Point car park (zone 1)

Outline of ECP access route

The coastal path proposals are to cross the River Steeping via an existing Internal Drainage Board (IDB) footbridge TF55275860 and follow the bank slope down to the edge of the Steeping river. The route will carry on between the river bank and the sea defence wall through an unsurfaced area towards Gibraltar Point visitor car park.

A zone of approximately 500 metres of semi-improved grass, Atlantic sea purslane and Saltmarsh couch grass is split into 3 sections and described in terms of loss of features of interest for the site.

a) The first 15 metres are located outside the SSSI boundaries from bridge to lower part of the bank. The vegetation is primarily composed of a semi-improved rank grass sward. No impact to any priority habitat.

b) The following 260 metres receives a very low footfall as public access has not been encouraged due to rank sward (Sea couch) and small creeks. The route will meander through an area primarily populated by sea couch that would qualify as saltmarsh vegetation. Sea couch is part of a dune colonisation pioneer species that starts the process by trapping tidal sediment and turning into embryonic dune which supports dune formation. At that location, on the bank of the river Steeping there is very little sand blown, but sediment is being delivered through tidal inundation. The land was engineered to support the river, with the river bed on one side and the sea defence on the other. This zone is highly engineered and not considered a naturally functioning zone of saltmarsh and very much confined to its current footprint.

c) The remaining 235 metres is of compacted bare ground from a single footfall line (c. <40 cm in width) formed by the access to the yachting club pontoons. Sea couch forms the majority of the vegetation surrounding the track, and the footfall has compacted any vegetation at that location.

This section of the route will be managed through a cut with the removal of the risings with a width of 1.5 metre.

The saltmarsh plant community, at Gibraltar Point has been calculated to cover 196.6 ha (TEP 2008)¹⁵; Sea couch *Elytrigia atherica* (SM24) is one of its component and covers 54ha of the site vegetation.

The proposed route through this section covers 743 m² or 0.13% of the Sea couch dominant with SM24 community will be lost to footfall pressure but Sea couch is not part a notified feature of interest of the site.

Potential for interaction (or lack of it)

In order to minimise bird disturbance to Croftmarsh LNR, the public has been directed on to the river bank, between the river bed and the sea wall, away from the crest of the sea wall. The route will be defined on the ground by a cutting regime that will define the path to follow.

Some possible visual impact to birds foraging the river bed during the low tides could occur. This is not likely to affect a large number of birds as the channel at that location is only empty during very low spring tides. Birds do forage the river bed further down where the channel widens but it is too far to create any visual impact.

saltmarsh vegetation:

1. The route will be defined through regular sward cutting of a width of 1.5 metres to outline the pathway direction and to encourage users to keep to it. Regular cutting and removal of the thatch will reveal ground unevenness and any of the small creeks scattered around will be more visible.

2. The route will receive tidal inundation during spring high tide events; at Gibraltar Point these events tend to correlate with dawn and dusk and therefore are unlikely to have a high impact on the route and its visitors. Signage will be required to inform members of the public of the unavailability of the path at springtide times; no alternative route is proposed.
3. The sea wall will act as a screen, protecting the birds foraging on Croftmarsh NNR from the visual impact of the visitor walking the route.

To conclude the section of England Coast Path, titled River Steeping to Gibraltar Point Car Park will have a minimal loss of saltmarsh vegetation which is viewed as *deminimis*¹⁶ as Sea Couch is not part a notified feature of interest of the site

4.2 Gibraltar Point car park to end of East Dune Ridge zone 2

Outline the ECP access route

Fixed dune vegetation

The public will be walking through a grazing enclosure on a section of fixed dunes, already managed for public access made of wide rides with short sward where the footfall will be spread throughout.

Gibraltar Point Conservation Objectives (CO) and definition of favourable condition (2009 draft)¹⁶ requires that 30-70% of the Fixed Dune should be covered with a sward height of 2-10 cm.

The route will be using existing zones of access through the Fixed Dune where the footfall has already been consented and the expectation is that visitor numbers are not likely to greatly increase through this proposal. This deduction has been reached from conversation with Lincolnshire Wildlife Trust and is based on the newly opened visitor centre being of a high interest to visitor. Since the rebuilding of the visitor centre, after the 2013 tidal damages, the new centre offers a roof terrace with a 360° vista. This, plus the added advantages of a coffee shop and public facilities, means members of the public are now more likely to visit the centre and enjoy the view rather than walking further afield.

Potential for interaction (or lack of it)

Fixed dune vegetation

The public will be walking through a grazing enclosure on a section of fixed dunes, already managed for public access made of wide rides with short sward where the footfall will be less concentrated.

To conclude; this section of the England Coast Path is proposing to use access routes that already form part of the public access on site. It has been estimated that the level of visitors expected to use this section of the route is not likely to be significantly higher than the current level of use and is not likely to impact on the integrity of the site.

4.3 Dune ridge to end of Seacroft Esplanade, Skegness

Outline the ECP access

From East Dune grazing enclosures, the route will be directed towards the foreshore, through a zone of Dunes with *Hippophae rhamnoides*, and the route will carry for about 500 metres until it reaches the intertidal zone.

From the intertidal zone, the path will run through a zone of upper saltmarsh on one side and mobile dune (Embryonic shifting dunes and Shifting dunes with *Ammophila arenaria*) until access out of the beach through a tarmac road at Seacroft Esplanade, Skegness.

Potential for interaction (or lack of it)

Dune vegetation

The route will meander primarily on the top of the sea defence through a fixed dune system (Grey dune) and will then follow a tidal zone of upper saltmarsh with zones of shifting dunes (definition JNCC¹⁸).

To formalise the proposed route and better define it on the ground some scrub clearance will be required to widen the path, which will spread the footfall load.

On the grey dune

This clearance is supported within the site management and Conservation Objectives¹⁶. Sea buckthorn scrub is one of the primary reason for notification but the species dominates other vegetation and its rooting system contains nitrogen fixing nodules¹⁸ which alter the soil chemistry. A balance of grey dunes with Sea buckthorn scrub (including other woody species) is to be struck with zones of very low to no scrub cover and others with woodland colonisation. In the Favourable Condition Table¹⁶, it has been established that a maximum of 20-30% of the grey dune should be populated by scrub (inc. Sea buckthorn).

The coastal access route has been developed to provide some far reaching sea views and minimise habitat disturbance, keeping in line with the existing level of footfall. This proposed route will only formalise a path through an area of already occurring access. To better define it on the ground and to enhance nature conservation some of the sections will be widened whilst still securing the integrity of the dune system as a sea defence.

On the intertidal zone

The path will access a wide open section of upper saltmarsh which occasionally receives some tidal inundation during a very high spring tidal event. This zone is bordered by 2 dune systems; to the landward side the dune forms part of the sea defence (see on the Grey Dune paragraph). To the seaward side a more recent/gentle dune accretion, referred as Yellow dune or Open dune¹⁸ where sand and a few colonising species should be the main species present.

To minimise impact to the upper saltmarsh from footfall compaction the zone of dune with any colonising Sea buckthorn growing at the base of the mobile dune will be cut and brash removed to extend the dry dune space. This will create a 2-3m width where the public will be able to walk for the length of the route away from the upper saltmarsh.

This strip will have the dual benefit of providing a dry zone during high spring tides whilst minimising the footfall that could otherwise be damaging to the saltmarsh vegetation. It will also provide a zone of dune vegetation colonisation covered by loose sand.

This method of management matches a similar approach that has been taken at Seacroft unit 4. Further signage to inform the public about keeping off the upper saltmarsh will be requested; the information board should educate the public on sand movement and saltmarsh benefits.

To conclude, with management in place for the widening of non-formal tracks through the removal of Sea buckthorn, the access from Dune Ridge to the Esplanade will have no adverse impact and will not affect the integrity of the site.

5. Assessment of any possible adverse impacts and mitigation measures

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

5.1 The Wash to Skegness

5.1.1 Ecological sensitivity

Zone 1 - trampling of the saltmarsh recovering zone

The saltmarsh vegetation consists of zones of natural transition from colonising mudflat species to upper saltmarsh communities with some transitional zones of dune formation. Introducing new access to areas of this vegetation needs careful management to avoid adverse effects from trampling that could limit vegetation growth and lead to areas of bare ground.

The route will be defined through regular sward cutting to outline the pathway direction and to encourage users to keep to it. Regular cutting and removal of the thatch will reveal ground unevenness and any of the small creeks scattered around will be more visible. Signs will direct users to keep to the clearly marked route to avoid access impacts on areas adjacent to the trail, warn users that the path may not be available for short periods around high spring tides, and that there is no alternative route available at these times.

Zone 3 - trampling of the upper saltmarsh

The saltmarsh vegetation consists of zones of natural transition from colonising mudflat species to upper saltmarsh communities with some transitional zones of dune formation. Introducing new access to areas of this vegetation needs careful management to avoid adverse effects from trampling that could limit vegetation growth and lead to areas of bare ground.

Signage will inform the public about keeping footfall to a minimum on the upper saltmarsh. An information board should educate the public on sand movement, saltmarsh benefits and its rarity.

5.1.2 Access assessment

Current situation

Gibraltar Point is proactively managed to reduce the impact of visitors to the site. Close to the main car parks and the visitor centre there is an existing network of paths that are maintained and signed to provide efficient access routes for visitors to the key points of interest whilst avoiding adverse impacts on more sensitive areas by signs, fencing or screening. On the more remote parts of the reserve that are reached by fewer visitors access is generally tolerated, with some sensitive areas such as the little tern nesting area being restricted through the breeding season. Pathways have developed through use but are mostly not waymarked or bounded by fences.

Local byelaws at Gibraltar Point require (1) dogs to be kept on leads all year round and (2) dogs to be excluded from the beach or foreshore between 1 April to 1 September each year.

South of the NNR there are clear desire lines leading out to The Spit, and along the foreshore beside Millennium Ridge, where visitors like to walk. LWT currently exclude access from the beach and foreshore in these areas between 1 April and 1 September to protect breeding shorebirds. Visitors are also excluded from the area of operation around the Bird Observatory, to ensure the study area remains undisturbed.

Recorded visitor numbers for recent years are shown in table 1 below. The site manager attributes the decline in visitor numbers in 2014 and 2015 to the damage sustained to the visitor centre from the storm surge of November 2013, and to increased availability of other wildlife sites in the area. Visitor numbers are believed to have risen again following the opening in 2016 of a new visitor centre, but this may not represent an increase in the number accessing other parts of the reserve as many remain in the immediate vicinity of the visitor centre to enjoy its improved facilities.

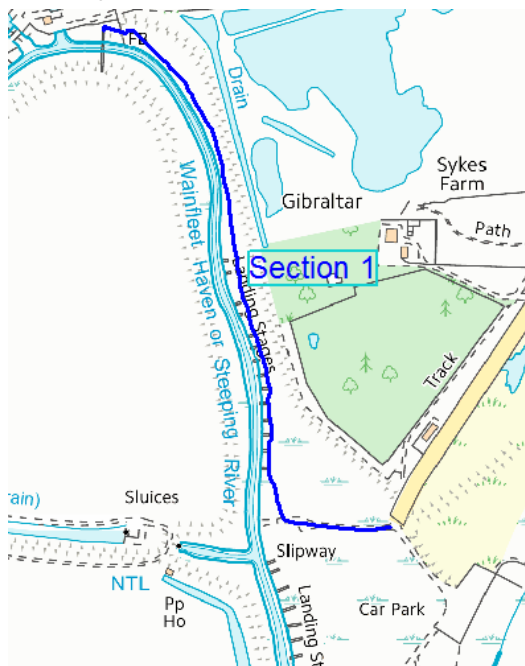
Table 1: Gibraltar Point annual visitor data – recorded car numbers and estimated visitor numbers assuming 2.8 visitors per car (Source: Lincolnshire Wildlife Trust)

	Total cars	Visitor total (based on 2.8 per car)
2007	68128	190758
2008	68758	192522
2009	67824	189907
2010	66427	185996
2011	66902	187326
2012	64103	179488
2013	63511	177831
2014	55165	154462
2015	58377	163456

Predicted change

Trail sections

Section/zone 1



Three sources allow us to make estimates of the potential usage (including seasonal variation) for this section that would be made available by use of the footbridge across the River Steeping.

1. **The Wash Visitor Survey** (Footprint Ecology, 2016) was commissioned by the local Borough Council to help assess recreational impacts for their local plan. Key points for Gibraltar Point are:
 - It is the most popular access point surveyed with an average of 13.9 per hour over the days surveyed in May, September and November
 - that people are prepared to travel a greater distance to visit (median 23.9 miles), and have relatively high awareness of conservation designations,
 - It is less popular for dog walking than other locations surveyed (only 9% surveyed accompanied by dogs).

The table below taken from the Footprint Ecology report demonstrates the seasonal variability and the peak at weekends in relation to other sites surveyed.

Table 23: The number of individuals entering/leaving sites from the current survey (daily values), RSPB sensor data (daily value averaged from monthly data) and Norfolk Visitor Surveys (daily values).

Location ID	Site name	Total individuals entering only					
		May		Sep		Nov	
		Wkday	Wkend	Wkday	Wkend	Wkday	Wkend
1	Gibraltar Point	120	239	88	91	40	87
2	Friskney	2	12	3	19	2	0
3	Wrangle	15	33	5	4	6	13
4	Leverton	3	8	16	28	18	24
5	Pilgrim Fathers memorial	104	68	37	118	15	48
6	Kirton Marsh	12	24	15	21	16	4
7	Middle Marsh Road	20	58	43	53	20	40
8	Holbeach St. Matthews	22	76	10	59	10	31
9	Gedney Drove End	11	23	17	85	14	12
10	Sutton Bridge West	23	9	19	60	15	46
11	Sutton Bridge East	24	77	10	49	36	90
12	Ongar Hill	5	21	5	14	13	42
13	Frieston Shore	14	71	-	-	-	-
14	Frampton Marsh	75	111	-	-	-	-
-	RSPB Frampton Sensor	119	167	90	139	71	99
-	Snettisham Beach	-	-	94	225	-	-

Table 2: (source: Footprint Ecology, 2016)

2. **Gibraltar Point Car park data** provides totals for visitors to the main reserve car park. Visitor numbers were impacted by the flood surge that destroyed the visitor centre in Autumn 2013, so taking the totals from 2007 to 2013 only the annual mean number of visitors is 186,261 (based on 2.8 persons per car). These are visitors to the whole reserve and there are many available route options for visitors to choose from on the site which include the visitor centre and café, bird hides overlooking specially created lagoons, extensive dunes and beaches. Therefore only a proportion of visitors would be attracted to follow the new coastal path route along/beside the seabank: it is reasonable to assume 10% might begin to walk the route and reach the footbridge over the River Steeping

Taking the mean annual total of 186,261 visitors to the reserve averaged equally over all days of the year equals 510 reserve visitors per day. If visitors chose to walk the coastal path in the proportions assumed above this would represent 51 (10%) that would start to walk the section with slightly less reaching the Steeping footbridge. With the variability between seasons and weekends/weekdays recorded in the Wash Visitor Survey we could expect daily counts to vary with most falling within a range from 30 to 100.

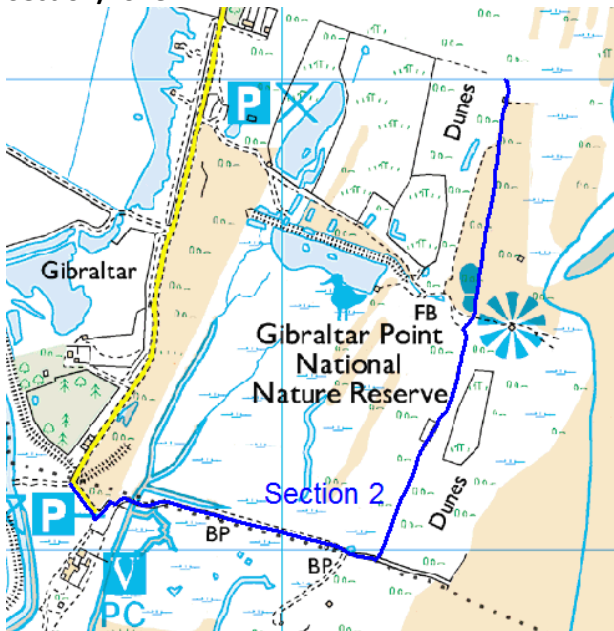
3. Natural England installed a **people counter on the Peter Scott Way** (see Annex 3 for more details) which is the one section of nearby Wash coastline already recognised as a walking trail. This can help us to assess how new sections of the ECP might be used. The location of the counter is on a popular stretch where levels of usage could be similar to expected use of the ECP at Gibraltar Point over the River Steeping footbridge, and suggests that the number of people choosing to walk the route would probably fall in a lower range than assumed at 2. Seasonal variation is shown to be similar though not quite as wide as assumed at 2 for Gibraltar Point where visitors peak more with summer visitors to the area.

	September 2016	January 2017	March 2017	June 2017
Total passes for month	1011	496	771	988
Daily mean passes (number of visitors)	33.7 (17)	16.0 (8)	24.9 (13)	32.9 (17)

Table 3: Recorded users of the Peter Scott Way (source: Natural England ECP team data)

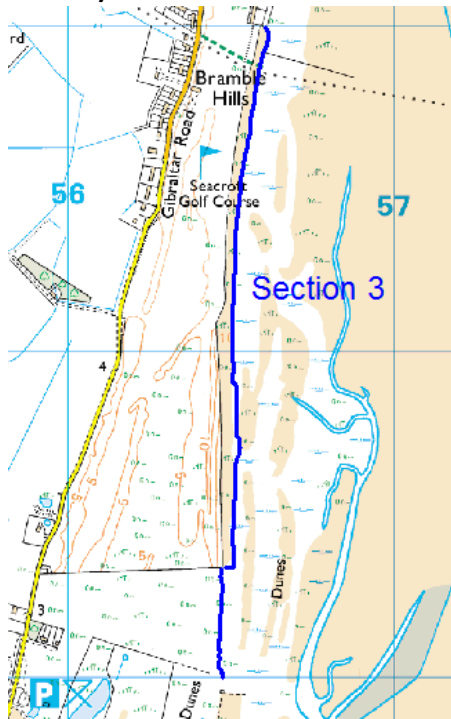
The expected level of use for section 1 is not high but does represent a significant increase compared to current low use in this zone. Appropriate mitigation measures for the section are therefore proposed in 5.1.4

Section/zone 2



This section uses existing well used trails through the reserve and the proportionate increase as a result of the ECP would not be expected to be significant, so no new mitigation measures are proposed for this zone.

Section/zone 3



Apart from the Seacroft Esplanade end which is well used by dog walkers this is a fairly remote section from the nearest parking places and is likely to see a small increase in users, estimated to peak at 10-20 per day on busier weekends and holidays, but less than 10 per day at other times. Although small this is a significant increase on the current level of use so appropriate mitigation measures are proposed for the trail through this section in 5.1.4. Clear marking and signage of the route on this section may benefit other parts of this zone by creating a regular route that will be followed in place of the various unmarked routes that may currently be followed.

The margin

No significant change in the existing pattern of use is anticipated, but some restrictions on coastal access rights will be introduced to reinforce the existing management (see section 5.1.4).

Land seaward of the trail will be coastal margin with coastal access rights, unless the land is excepted or subject to local restrictions, exclusions or diversions. Local byelaws prevail over coastal access rights, so visitors will continue to keep dogs on leads all year round and dogs will be excluded from the beach and foreshore between 1st April to 1st September each year.

The saltmarsh in the margin is unsuitable for general public access and will have coastal access rights excluded by direction under Section 25A (S25A) of the Countryside and Rights of Way Act (2000). This exclusion also protects sensitive features, including passage and wintering birds and saltmarsh habitat, from possible damage and/or disturbance. If in the future there is a proposal to remove or relax the Section 25A exclusions, then an appraisal of the effects of those changes on sensitive features will be required.

5.1.3 Possible adverse impacts

Section 1 - trampling of the saltmarsh recovering zone and trampling of the upper saltmarsh

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

Section 1

The path follows the informal path beside yacht moorings and then a slightly raised drier area of upper saltmarsh vegetation, avoiding more sensitive wet areas and minor creeks, to reach a low sea defence bank close to the footbridge. As it will traverse only a small bank at this point with a moderate slope no new structure will be required. The trail will be limited to a width of 1.5 metres to reduce footfall impact but minimise the cutting required of saltmarsh vegetation, with no landward or seaward spreading area to either side. Waymarking will be installed to clearly mark the route and advisory signs will warn that the route may be occasionally unavailable during high spring tides.

Section 3

Upper saltmarsh area adjacent to yellow dune system – in order to follow methodology of management elsewhere on site⁷; the zone of dune adjacent to the upper saltmarsh will be flailed on a 5 years rotation to provide a zone clear of scrub for members of the public to walk on. Waymarking and signage will be required to encourage users to keep to this route.

Margin

To replicate existing access management at Gibraltar Point National Nature Reserve, access to the zoned areas within the margin will be restricted as follows:

- Access will be excluded for the purpose of nature conservation, to protect breeding birds, particularly little terns, from trampling and disturbance between 1 April to 1 September each year on the land cross hatched in brown (S26 seasonal) – see map at Annex 4.
- Access will be excluded for the purpose of land management, to protect the Bird Observatory from disruption year round on the land shaded in mauve (S24 land management) - see map at Annex 4.

5.1.5 Conclusion

The proposed route and associated mitigation measures will avoid disturbance to key bird species of this site and will protect the vegetation of sensitive habitats.

6. Establishing and maintaining the England Coast Path

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

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

6.1 Establishment

6.1.1 Works on the ground

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

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

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

We have held preliminary discussions with Lincolnshire County Council about the works required and believe that it is feasible for them to be carried out without adverse effect on the designated sites considered in this appraisal providing that:

Work is planned to take account of the presence of legally protected species. This is an important consideration where works involve the destruction of existing physical features or the construction or maintenance of new or existing features where legally protected species are known or suspected to be present. Where legally protected species including breeding birds are known or suspected to be present all works should include appropriate mitigation

Lincolnshire 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 ecological advice as necessary.

6.1.2 Implementation of mitigation measures

The mitigation measures described in Part 5 of this document (**5.1.4**) will be implemented as follows:

- Cutting and removal of saltmarsh vegetation for a width of 1.5 metres over a length up to 500m within section 1

- Cutting and removal of scrub vegetation for a width of 2-3m over a length up to 1.5km within section 3
- Installation of information/advisory boards at either end of sections 1 and 3

Measure	Implementation
Timing of works	Where works are likely to affect breeding birds the works should be timed to avoid the breeding season for the majority of species March to August inclusive
Use of heavy machinery	Access routes for heavy plant and machinery should be discussed and agreed with Natural England lead adviser to avoid damage to the site or interest features and legally protected species.
Presence of protected species	Where legally protected species are known or suspected to be present all works should include appropriate mitigation in line with legislative guidelines. Some species are afforded extra levels of protection and a licence may be required. Advice as to the presence of legally protected species should be sought from the Natural England lead adviser.
Storage of plant and materials	Mitigation in preparation for the use of heavy machinery to prevent damage to sensitive site features.
Pollution prevention and control	Pollution prevention and control measures must be agreed with the Natural England lead adviser and the Environment Agency where appropriate.
Biosecurity	Where necessary appropriate measures will be taken to prevent the transportation of invasive non-native species. Natural England lead adviser to advise as and when necessary

6.1.3 Local restrictions or exclusions

Where specific restrictions or exclusions have been included in the proposal, Natural England will give the necessary directions to give legal effect to these before the new public rights come into force.

6.2 Maintenance

The trail and associated infrastructure will be maintained by the relevant local authority in line with the national quality standards that apply to all National Trails. An overall estimate of the ongoing cost of maintaining stretches of the England Coast Path is given in the relevant part of our report for the stretch.

6.3 Monitoring

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

6.4 Future changes

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

7. Conclusions

7.1 Overall conclusion – Natura 2000/Ramsar sites

7.1.1 Population level effects

Feature - or feature group	Conclusion
Birds at Croftmarsh LNR	With the current mitigation in place as described above, the birds at Croftmarsh LNR will not be disturbed. But there is a potential issue if members of the public do not keep to the marked path and instead go on top of the sea defence. If this occurs on the regular basis, fencing will need to be installed to stop this occurrence.

7.1.2 In combination assessment – where applicable

7.1.2a Other qualifying plans or projects

Competent Authority	Plan or project	Description
East Lindsey District Council	Local Plan –submission version with amendments	This identifies the proposed development within the District including economic activity, housing, industrial land use and other district level economic priorities including recreation and tourism development. This plan includes its own HRA and strongly references the need for HRA when applicable. The proposed actions in the document will NOT lead to an in combination effect
Greater Lincolnshire Local Economic Partnership (GLLEP)	<u>Lincolnshire Enterprise Partnership – Strategic Economic Plan 2016</u> including the draft coastal vision (2016)	This sets out the economic development opportunities including at the coast. This includes investment in visitor management, access and coastal and rural tourism development This plan includes its own HRA and strongly references the need for HRA when applicable. The proposed actions in the document will NOT lead to an in combination effect

7.1.2b Possible in combination effects

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

7.1.3 Overall screening decision

Mark with an ✓ as appropriate

☒

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

OR

☐

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

7.2 Overall conclusion - SSSI

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

(Mark one box only with an ✓ below)

☒

complies with Natural England's duty to further the conservation and enhancement of the notified features of the SSSI, consistent with the proper exercise of its functions¹ - and accordingly the new access proposal may proceed as finally specified in this template

OR

☐

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

Reasons (where second box is ticked):

7.3 Overall conclusion: Marine Conservation Zone

7.4 Overall conclusion - National Nature Reserve

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

In the light of this appraisal, Natural England has concluded that the new access proposal:
(Mark one box only with an ✓ below)

☒

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

OR

☐

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

Reasons (where second box is ticked):

7.5 Other features about which concerns have been expressed

In the light of this appraisal, Natural England has concluded that:
(Mark one box only with an ✓ below)

☒

the appropriate balance has been struck by the new access proposal between NE's conservation and access objectives, duties and purposes - and accordingly the new access proposal should proceed as finally specified in this template

OR

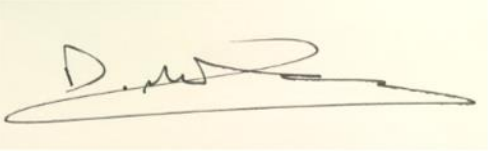
☐

the appropriate balance referred to above has not been struck – and accordingly the new access proposal should not proceed in the form finally specified in this template, for the following reasons:


Reasons (where second box is ticked):

8. Certification

8.1 Certification – access proposal

I certify that the details of the access proposal are correct		
Signed: 	Name: Darren Braine	Date: 19/01/2018

8.2 Certification – ecological impacts

I certify the conclusions of this appraisal with regard to ecological impacts		
Name: Ian Butterfield	Signed: 	Date: 19/1/2018

9. References

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10. Annex 1

CROFT MARSH/WATER BODY COMPLEX

Wintering birds

1) Lapwing peak counts (Nov-Mar)

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Count	2500	2000	400	300	400
Date	07/01/13	18/01/14	29/12/15	09/02/2016	07/01/2017

2) Golden Plover (Nov-Mar)

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Count	6000	7900	3200	700	1200
Date	15/02/13	06/01/14	01/01/15	23/12/15	01/11/16

3) Pink-footed Goose (Nov-Mar)

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Count	350	25	1200	843	600
Date	09/11/12	06/01/14	29/01/14	09/02/16	14/11/16

4) Brent Goose (Nov-Mar)

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Count	850	320	1200	1618	600
Date	07/03/13	09/03/14	25/02/15	04/02/16	24/01/17

Potential breeders

5) Spoonbill (maximum counts)

Year	2012	2013	2014	2015	2016
Count	6	2	10	16	17
Location	Jackson's Marsh	Tennyson's Sands	Tennyson's Sands	Jackson's Marsh	Tennyson's Sands
Date	04/09/12	21/08/13	09/09/14	10/08/15	23/08/15

6) Little Egret – Jacksons Marsh roost – all records regarding birds roosting in hedge (maximum counts)

Year	2012	2013	2014	2015	2016
Count	36	65	61	38	96
Date	21/08/12	19/08/13	09/10/14	21/07/15	02/08/16

Breeding Birds

7) Avocet breeding pairs (Tennyson's Sands & Jacksons Marsh combined)

Year	2012	2013	2014	2015	2016
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Breeding pairs	21	20	20	30	20
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Passage waders

- Maximum counts for passage waders on Tennyson's Sands/Jackson's Marsh

8) Black-tailed Godwit (April-October)

Year	2012	2013	2014	2015	2016
Count	110	160	500	229	223
Date	20/09	10/08	28/10	25/08	11/08

9) Greenshank (April-October)

Year	2012	2013	2014	2015	2016
Count	39	23	24	28	19
Date	24/08	14/09	06/08	22/07	16/08

10) Avocet (April-October)

Year	2012	2013	2014	2015	2016
Count	68	71	82	70	111
Date	17/07	09/07	13/07	01/08	15/07

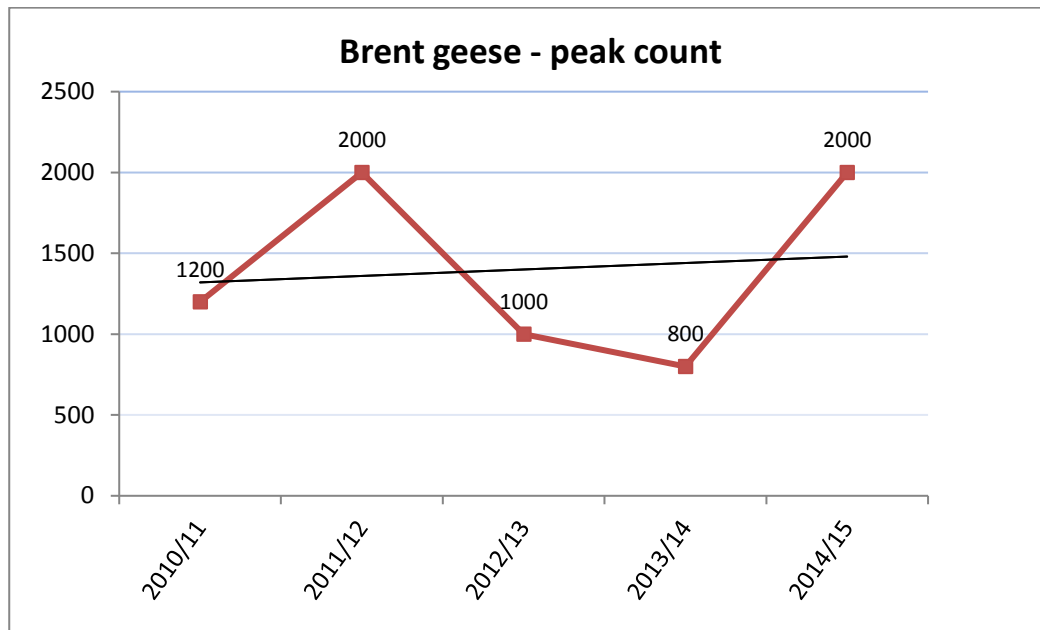
11) Redshank (April-October)

Year	2012	2013	2014	2015	2016
Count	40	144	510	435	400
Date	01/07	24/08	01/08	04/08	06/08

12) Spotted Redshank (April-October)

Year	2012	2013	2014	2015	2016
Count	8	9	4	8	10
Date	21/08	05/10	09/10	30/08	14/08

Dark Bellied brent



5 yrs peak mean Total of $7000/5=1400$ ($1400/141700=0.01 \times 100$) =1% of The Wash population
 The Wash notification 17,000 = 12% ($17000/0.12=141700$)

Gibraltar Point TEP NVC community 2009¹⁵



Annex 2

Croftmarsh LNR including Bullock Field; Moat Field; Jackson March and Tennyson Sand
Dot in yellow is the footbridge crossing location. Aerial & mapping WebMap2¹⁹



Annex 3

Peter Scott Walk - Guy's Head, Near Sutton Bridge **Summary of people counter results.**

Background and Location

Natural England's Coast Path team needed to obtain evidence for recreational use on an existing section of public access adjacent to the Wash coast to demonstrate the levels of use that might be expected for similar sections to be opened as part of the new trail. One section of the Wash coastline is already designated as a long distance trail - the 16km Peter Scott Walk along the seabank from the mouth of the River Nene at Guy's Head to the River Ouse ferry crossing near King's Lynn. Previous research on visitor use of public access around the Wash (Wash Visitor Survey, Footprint Ecology, 2016) has shown that Guy's Head is one of the most popular access points so counts near this point should indicate the highest levels to be expected on new sections around the Wash.



Fig.1 Location of the equipment (large red dot) near Guy's Head, Sutton Bridge, Lincs.

In August 2016 a body heat sensor with connected datalogger was installed adjacent to the public bridleway along the top of the seabank at 980m from the nearest available public parking and access point from a minor highway at Guy's Head (east bank) near Sutton Bridge, Lincolnshire. The equipment was carefully concealed so that the public would not be aware of its presence. Although the right of way is a designated bridleway no horseriders or cyclists have been observed using the route on site visits, only walkers and dogs. There are no connecting rights of way that can be used to make a shorter circular walk so it has been assumed that users will generally be undertaking an out and back walk along the same route unless completing the entire walk. The sensor was located at a point where it is difficult to avoid passing within range of the sensor which will record each pass by a walker, therefore recording two passes for almost all visitors.

A spot survey of visitors was undertaken on one day in August and again in October 2016. This revealed that most people intended to walk 2-5 km with a maximum declared of 10km. This

supports the assumption that almost all visitors would be recorded twice per visit as no alternative right of way is available to complete walks of this distance. Slightly less than half of the groups were accompanied by dogs in August but the proportion was higher in October.

The four months selected below from the data collected represent times of particular concern for SPA feature birds on the adjacent Wash saltmarshes when visitor presence could affect bird behaviour: September (passage migrants), January (overwintering waders and wildfowl), March and May (breeding season).

Results from the datalogger – daily and hourly counts of visitors

Four selected months through the year showing daily counts: September, January, March, (May/June to be included) and two selected periods of 5 days showing hourly counts in August and March.

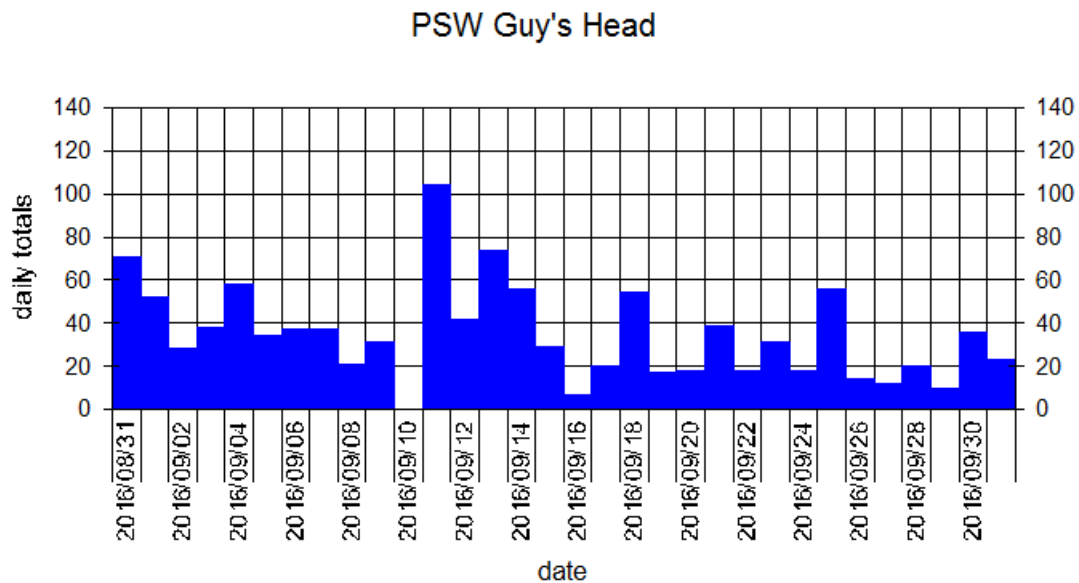


Fig.2 Daily total passes – September 2016

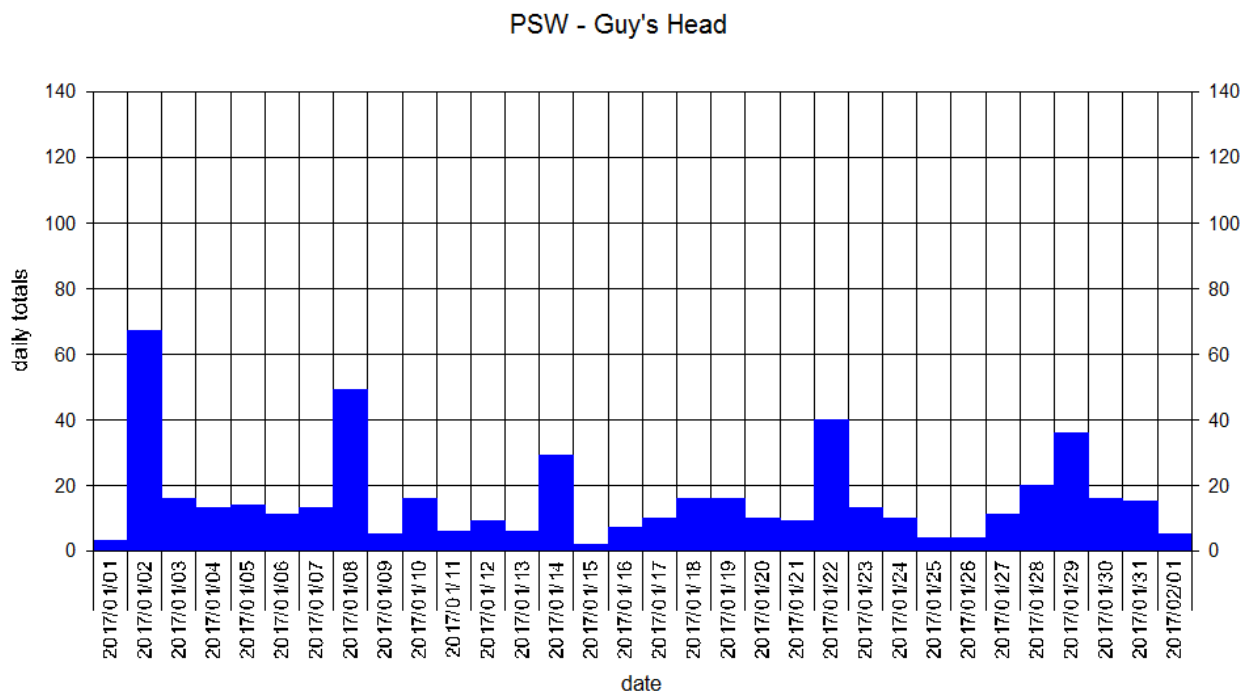


Fig.3 Daily total passes - January 2017

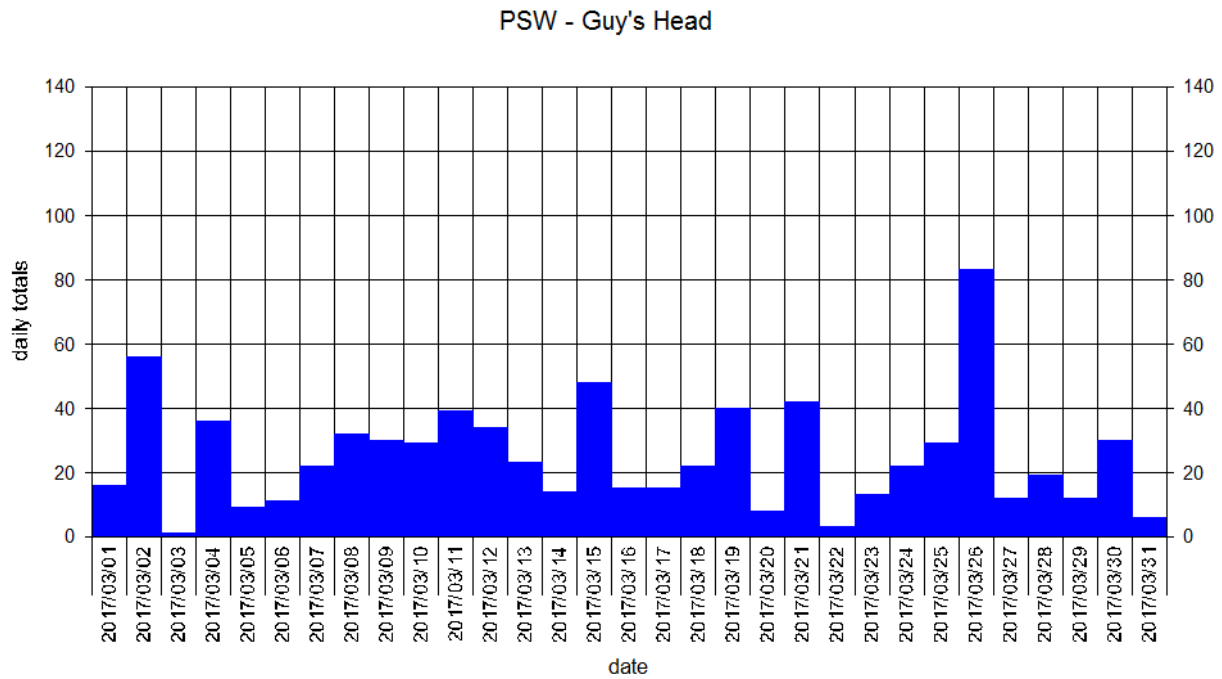


Fig.4 Daily total passes - March 2017

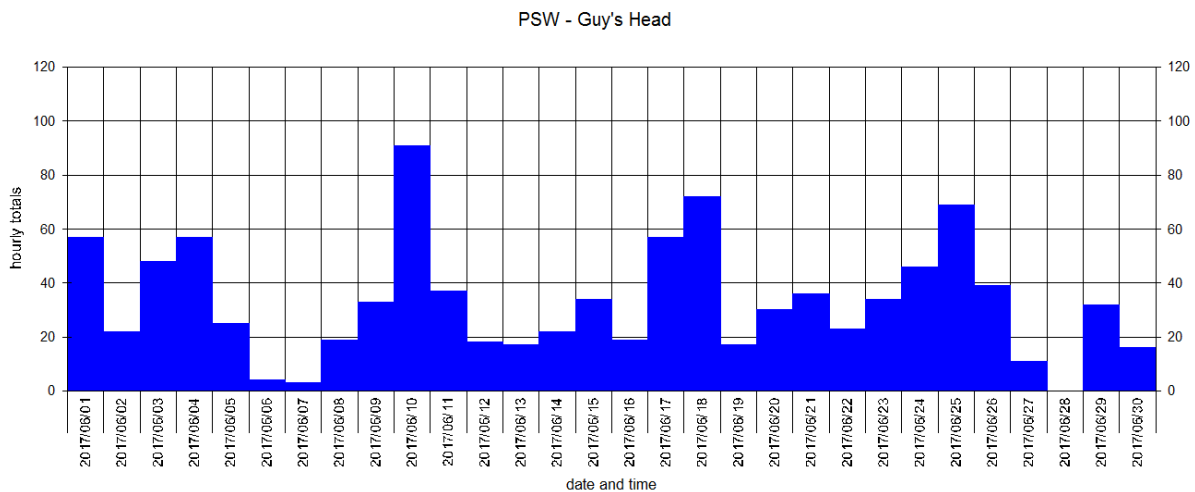


Fig.5 Daily total passes - June 2017

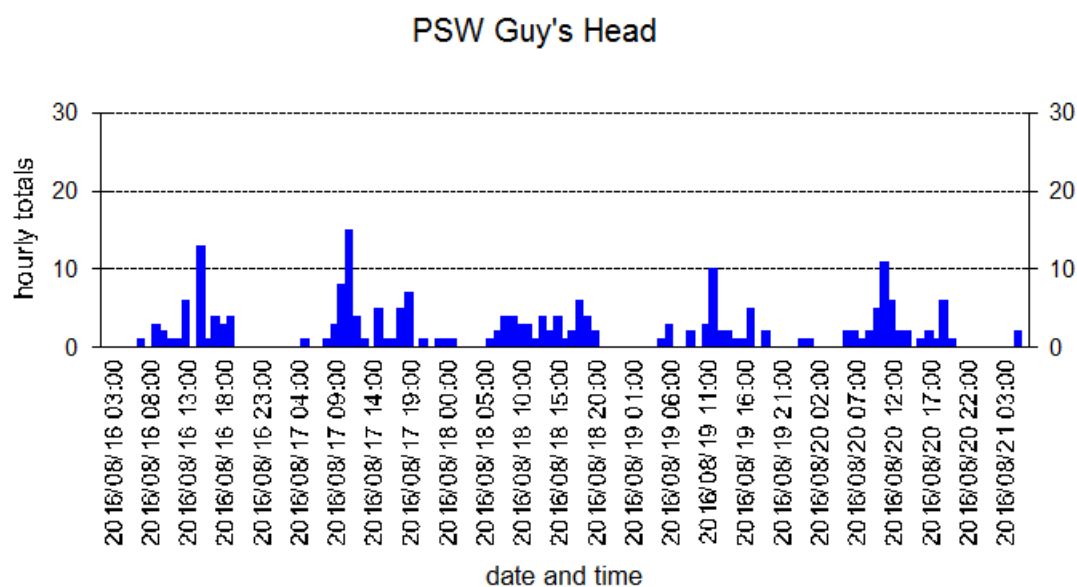


Fig.6 Total passes counted per hour - 5 days in August 2016

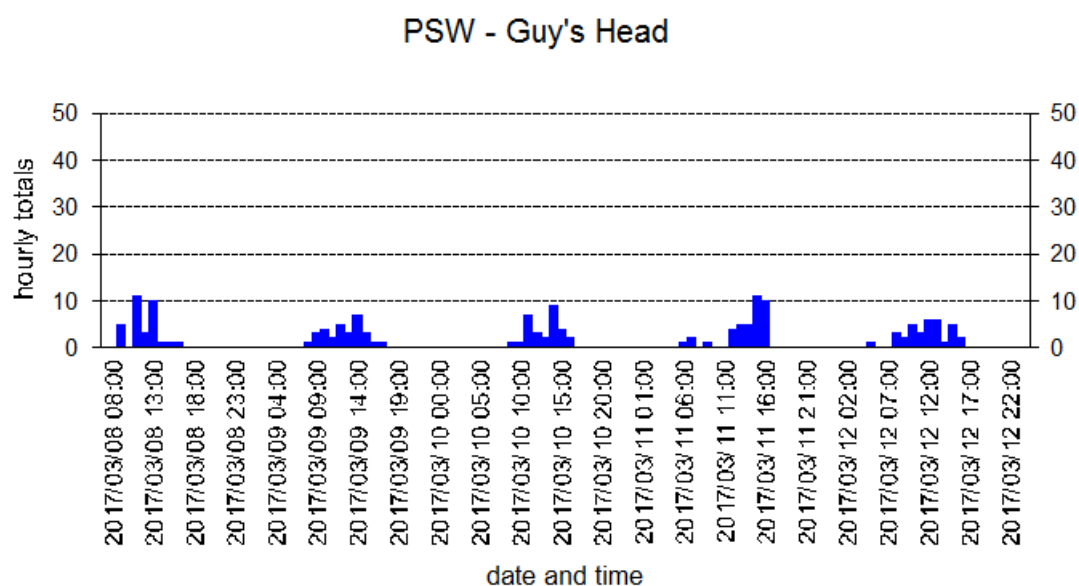
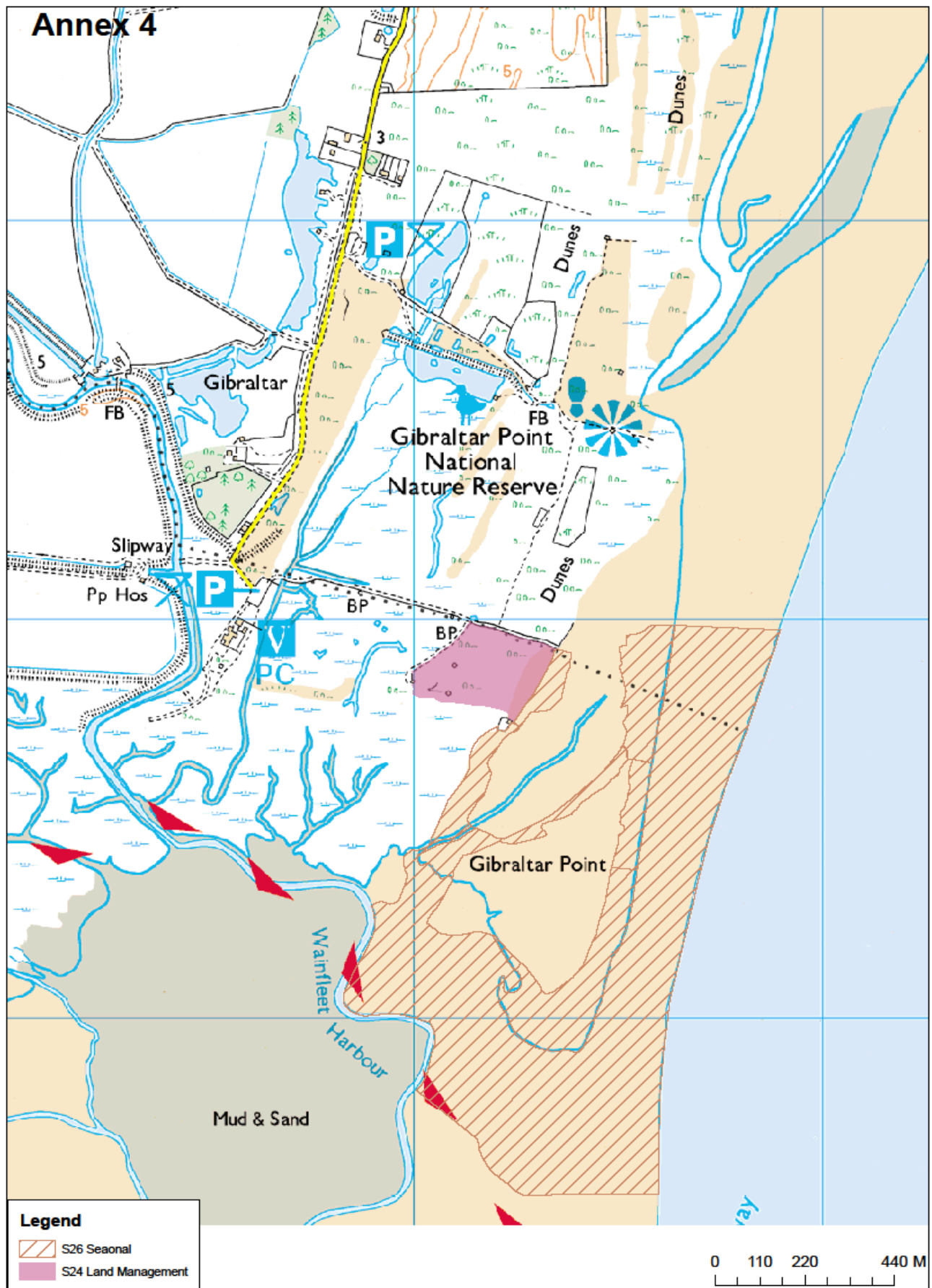


Fig.7 Total passes counted per hour - 5 days in March 2017

Summary

	September 2016	January 2017	March 2017	June 2017
Total passes for month	1011	496	771	988
Daily mean passes (number of visitors)	33.7 (17)	16.0 (8)	24.9 (13)	32.9 (17)
Modal class (equivalent visitor numbers)	31-40 (15-20 visitors)	0-10 and 11-20 equally (0 – 10 visitors)	11-20 (5-10 visitors)	31 – 40 (15-20 visitors)

- The monthly total of passes and daily mean are just over twice as high for September 2016 and June 17 as for January 2017. The corresponding figures for March 2017 are close to midway between these.
- Number of passes tends to peak at weekends but there is undoubtedly a weather influence too.
- Peak counts tend to occur between 10am and 4pm but are sometimes later in the day.



Annex 4: Restrictions within the coastal access margin at Gibraltar Point for land management and nature conservation reasons

