Assessment of England Coast Path proposals between Aust and Brean Down on the:

- **Severn Estuary Special Area for Conservation (SAC), Special Protection Area (SPA) and Ramsar site,**
- **the Mendips Limestone Grasslands SAC,**
- **the Chew Valley Lakes SPA,**
- **the Somerset Levels and Moors SPA and Ramsar site, and**
- **the North Somerset and Mendip Bats SAC.**

25 July 2019

Contents:

Summary

S1: Introduction

S1.1 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 ('the Habitats Regulations').

S1.2 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 from Aust to Brean Down on the following sites of international importance for wildlife: Severn Estuary Special Area for Conservation (SAC), the Severn Estuary Special Protection Area (SPA), the Severn Estuary Ramsar site and the Mendip Limestone Grasslands SAC.

S1.3 This assessment should be read alongside Natural England's related Coastal Access Report in which the access proposal is fully described and explained.

S2: Background

S2.1 The main wildlife interests for this stretch of coast are summarised in Table 1 (see section B1 for a full list of qualifying features).

Table 1: Summary of the main wildlife interest

Interest	Description
Subtidal and intertidal habitats	The Severn Estuary is a wide coastal plain with a large tidal range. It supports numerous areas of subtidal sandbanks and reefs and intertidal reefs, saltmarsh, sand flats and mud flats. These features are important in their own right and as essential habitat for internationally important populations of waterbirds (see below) and fish.
Non-breeding waterbirds	Waterbirds occur in internationally important numbers on the Severn Estuary both on passage and over winter. The majority of waterbirds feed on the extensive areas of mud, sand and saltmarsh and often roost at the water's edge on saltmarsh and sea defence structures.

S3: Our approach

S3.1 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. 25].

S3.2 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.

S3.3 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.

S3.4 On the Severn Estuary, the sensitivity of non-breeding waterbirds to recreational activity was identified as the main concern at an early stage: in particular the potential for increased disturbance at high tide, when feeding grounds are covered and birds gather to rest ('roost') or feed along the shoreline closer to where people already walk - or might be walking in the future, depending on the access proposals. Natural England commissioned two reports to identify the high tide roosting places along the estuary [Ref 21] [Ref 58]. These reports informed the detailed design of the access proposals.

S3.5 The conclusions of our assessment 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.

S4: Aim and objectives for the design of our proposals

S4.1 The new national arrangements for coastal access will establish a continuous well-maintained 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.

S4.2 A key consideration in developing coastal access proposals for the Severn Estuary has been the possible impact of disturbance to non-breeding waterbirds as a result of recreation activities on foot, including walking with dogs.

S4.3 Objectives for design of our detailed local proposals have been to:

- avoid exacerbating issues at sensitive locations by making use of established coastal paths
- where there is no suitable established and regularly used coastal route, develop proposals that take account of risks to sensitive nature conservation features and incorporate mitigation as necessary in our proposals
- where helpful – either for public safety or nature conservation reasons - clarify where people may access the foreshore on foot for recreational purposes
- raise public awareness of the importance of this stretch of coast for waterbirds, identify the most sensitive locations and explain how people can protect them.

S5: Conclusion

S5.1 We have considered whether our detailed proposals for coastal access between Aust and Brean Down might have an impact on the Severn Estuary SAC, SPA and Ramsar site. 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 each site. These measures are summarised in Table 2 below.

Table 2: Summary of risks and consequent mitigation built in to our proposals

Risk to conservation objectives	Relevant design features of the access proposal
Increased disturbance to feeding or roosting waterbirds (non-breeding), and breeding individuals that may contribute to the non-breeding population of a qualifying feature, following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• Clearly waymarked and enjoyable route throughout. • A suite of attractive notices to stimulate interest in waterbirds and encourage responsible behaviour • Position the route out of sight of some roost sites, or use screens with viewpoints to keep path users out of sight • Extensive exclusions to intertidal flats and lower saltmarsh where many waterbirds feed. • Promote a network of refuge sites on higher ground where significant numbers of waterbirds gather to roost or feed. • Restrict access to the trail on sections of new path that pass close to roosting and feeding areas.

	• Use fences and notices to discourage people from leaving the path in some places. • Seasonal routes in some locations to avoid disturbance at more sensitive times of year. • Require users to keep dogs on leads in some places to reduce disturbance risk.
Disturbance to feeding or roosting waterbirds (non-breeding), and breeding individuals that may contribute to the non-breeding population of a qualifying feature, during path establishment work, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• Design access routes, storage areas and site facilities to minimise disturbance impacts. • Conduct operations out of sight of roosting and feeding areas where possible. • Local authority to plan schedule with natural England to limit disturbance risk. • Time operations during a period of low sensitivity at each construction site. • Avoid use of percussive machinery outside this period wherever practicable. Use hand tools where practicable. • At all other times, stop work around high tide to avoid disturbance to roost sites. • Limit activities to daylight hours.
More frequent trampling in areas of intertidal reef, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• Route avoids proximity to known areas of intertidal reef, saltmarsh and limestone grassland, or follows existing paths across these areas that are part of the site fabric. • Access rights over many areas of reef are excluded.
More frequent trampling in areas of salt marsh, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• Route avoids saltmarsh. • A new path at Sand Bay avoiding saltmarsh will reduce damage to saltmarsh along the existing path. • Access rights to many areas of lower saltmarsh will be excluded. • Existing wear to saltmarsh is reduced in places, by choosing a more landward route that allows damaged habitat to recover. • Notices will discourage use of secondary paths across saltmarsh in places, in order to reduce disturbance to roosting or feeding waterbirds.
Damage to saltmarsh during path establishment work in nearby areas leads to a long term reduction in population and/or	• The route avoids saltmarsh.

contraction in the distribution of Qualifying Features within the site.	• Notices will be mounted on new posts erected at the edge of upper saltmarsh and 6 locations. • New post holes will be hand dug and turf replaced afterwards.
More frequent trampling in areas of limestone grassland, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• Route follows existing surfaced paths across limestone grassland that are part of the site fabric. • Route avoids other existing paths that are considered vulnerable to erosion.
Damage to limestone grassland during path establishment work in nearby areas leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• Route follows existing paths across limestone grassland that are part of the site fabric. • Repairs to an existing surfaced track will make it more attractive to walk on. • Method statement prepared by the National Trust (with agreement from Natural England) will specify access route for the contractor and working methods that avoid unintentional damage to surrounding grassland.
Increased disturbance to roosting or hibernating greater horseshoe bat, following changes in recreational activities as a result of the access proposal, leads to reduction in population and/or contraction in the distribution of Qualifying Features within the site.	• The route avoids close proximity to known roost sites. • No new access rights are created in these areas.

S6: Implementation

S6.1 Once a route for the trail has been confirmed by the Secretary of State, we will work with South Gloucestershire, Bristol City, North Somerset and Somerset County Councils to ensure any works on the ground are carried out with due regard to the conclusions of this appraisal and relevant statutory requirements.

S7: Thanks

S7.1 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 South Gloucestershire Council, North Somerset Council, the Environment Agency, Avon Wildlife Trust, Clevedon Wildfowlers Association, the Ramblers, the RSPB, the National Trust and to other organisations and local experts whose contributions and advice have helped to inform development of our proposals.

S7.2 Special thanks are due to Harvey Rose, Giles Morris and other local volunteers contributing to the national Wetland Birds (WeBs) survey, and to members of the Clevedon Wildfowlers Association, for their generous contributions of time and invaluable knowledge of the dynamics of local bird populations.

PART A: Introduction and information about the England Coast Path

A1. Introduction

A1.1 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.

A.1.2 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.

A1.3 Where implementation of a Coastal Access Report would be likely to have a significant effect on a site designated for its international importance for wildlife, called a 'European site[1]', the report must be subject to special procedures designed to assess its likely significant effects.

A1.4 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.

A1.5 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 of the Coastal Access Scheme [Ref. 25].

A2. Details of the plan or project

A2.1 In this assessment we consider our proposals for coastal access from Aust to Brean Down.

A2.2 Our proposals for coastal access have two main components:

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

[1] Ramsar sites are treated in the same way by UK government policy

England Coast Path

A2.3 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.

Coastal Margin

A2.4 An area of land associated with the proposed route will become coastal margin, including all land seawards of the trail down to mean low water.

A2.5 Coastal margin is typically subject to new coastal access rights, though there are some obvious 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 25]. 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.

A2.6 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.

A2.7 Of particular relevance to this assessment is that most areas of mud flat on this part of the Severn Estuary are considered unsuitable for public access and will be excluded from the new coastal access rights at all times regardless of any other considerations.

Establishment of the path

A2.8 Establishment works to make the path 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 South Gloucestershire Council, Bristol City Council, North Somerset Council and Somerset 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.

Maintenance of the England Coast Path

A2.9 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

A2.10 The legal framework that underpins coastal access allows for adaptation in light of future change. The coastal path will be able to 'roll back' if necessary as a result of coastal erosion or encroachment by the sea. In other 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.

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

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

B1.1 The Severn Estuary SAC, SPA and Ramsar site together extend from Frampton-on-Severn in Gloucestershire downstream to Lilstock in Somerset and Penarth in the Vale of Glamorgan, Wales. They include all the coast from Aust to Brean Down.

Severn Estuary SAC

B1.2 The Severn Estuary is the largest example of a coastal plain estuary in the United Kingdom and one of the largest estuaries in Europe. It is designated as a Special Area of Conservation as an estuary, and for its subtidal sandbanks, biogenic reefs (here, of the honeycomb tubeworm *Sabellaria alveolata)*, intertidal mudflats, sandflats and saltmarsh, and the populations of waterbirds, fish and vascular plants that it supports [Ref. 30].

Severn Estuary SPA

B1.3 The Seven Estuary is designated as a Special Protection Area for the internationally important numbers of non-breeding waterbirds that use it on passage and to overwinter [Ref. 35].

Severn Estuary Ramsar

B1.4 The Severn Estuary is designated as a Ramsar site because of its immense tidal range, its intertidal habitats and the communities of waterbirds, fish and vascular plants which they support [Ref. 20].

Mendip Limestone Grasslands SAC

B1.5 The Mendip Limestone Grasslands SAC is designated as a Special Area of Conservation for its limestone habitats and for the greater horseshoe bat *Rhinolophus ferrumequinum* [Ref. 33]. It

consists of three discrete limestone outcrops: Brean Down and Uphill Cliff are at the coast and the SAC is included for consideration on that basis.

Chew Valley Lakes SPA

B1.6 Chew Valley Lake is the largest artificial freshwater lake in southwest England. The open water and marginal vegetation support internationally significant numbers of non-breeding northern shoveler, for which it is designated [Ref. 32]. Chew Valley Lake is 20 Km from Clevedon (map D1), the nearest coastal land affected by the proposals. There is evidence that shoveler from Chew Valley lake visit the Severn estuary and could therefore interact with the coastal access proposals. The site is included for consideration on that basis.

Somerset Levels and Moors SPA and Ramsar

B1.7 The Somerset Levels and Moors are designated as a Special Protection Area for the internationally important numbers of non-breeding waterbirds that use it on passage and to overwinter [Ref. 30]. The Somerset Levels and Moors is designated as a Ramsar site because of the wetland invertebrate communities which it supports and the non-breeding waterbirds which use it on passage and overwinter [Ref. 19].

B1.8 The boundary of the Somerset Levels and Moors SPA and Ramsar site is 14 Km at its nearest point from Brean Cross Sluice (Map F), the nearest coastal waterbird habitat which could be affected by these proposals. There is evidence that waterbirds from the Somerset Moors and Levels visit the Severn estuary [Ref. 7, 8] and could therefore interact with the coastal access proposals. The site is included for consideration on that basis.

North Somerset and Mendip Bats SAC

B1.9 The North Somerset and Mendip Bats SAC is designated as a Special Area of Conservation for its limestone habitats and for the populations of lesser horseshoe bat *Rhinolophus hipposideros* and greater horseshoe bat *Rhinolophus ferrumequinum* which they support [Ref. 34].

B1.8 The site consists of several discrete limestone outcrops, the nearest of which is 6.5 Km from the tidal sluice at Tutshill (map D2), the nearest land that could be affected by the proposals. There is a possibility that lesser and greater horseshoe bats from this SAC could interact with the coastal access proposals because they are mobile species and the SAC is included for consideration on that basis.

Other nearby European sites

B1.10 Avon Gorge Woodlands are designated as an SAC for their limestone habitats [Ref. 31]. The site boundary is 2.5 km at its nearest point from Avonmouth, the nearest coast affected by these proposals. The qualifying features of the site are not mobile and there is therefore no realistic scope for interaction with the coastal access proposals. It is excluded from consideration in this assessment on that basis.

Table 3. Qualifying features

Qualifying feature	Severn Estuary SAC	Severn Estuary SPA[1]	Severn Estuary Ramsar Site	Mendip Limestone Grasslands SAC	Chew Valley Lakes SPA	Somerset Levels and Moors SPA[2]	Somerset Levels and Moors Ramsar site	North Somerset and Mendip Bats SAC
H1110 Sandbanks which are slightly covered by sea water all the time	✓							
H1130 Estuaries[3]	✓		✓					
H1140 Mudflats and sandflats not covered by sea water at low tide	✓							
H1170 Reefs	✓							
H1330 Atlantic salt meadows (*Glauco-Puccinellietalia marimae*)	✓							
Assemblage of fish			✓					
S1095 Sea lamprey *Peteromyzon marinus*	✓		✓					
S1099 River lamprey *Lampetra fluviatilis*	✓		✓					
S1103 Twaite shad *Alosa fallax*	✓		✓					
Allis shad *Alosa alosa*			✓					
Atlantic Salmon *Salmo salar*			✓					
Sea Trout *Salmo trutta*			✓					
European eel *Anguilla Anguilla*			✓					
A037 Bewick's swan *Cygnus columbianus bewickii* (Non-breeding)		✓				✓	✓	

Qualifying feature	Severn Estuary SAC	Severn Estuary SPA	Severn Estuary Ramsar Site	Mendip Limestone Grasslands SAC	Chew Valley Lakes SPA	Somerset Levels and Moors SPA	Somerset Levels and Moors Ramsar site	North Somerset and Mendip Bats SAC
A048 Common shelduck *Tadorna tadorna* (Non-breeding)[4]		✓	✓					
A051 Gadwall *Anas strepera* (Non-breeding)		✓	✓					
A052 Eurasian teal *Anas crecca* (Non-breeding) [4]						✓	✓	
A056 Northern shoveler *Anas clypeata* (Non-breeding) [4]					✓			
A137 Ringed Plover *Charadrius Hiaticula* (Non-breeding)			✓					
A140 European golden plover *Pluvialis apricaria* (Non-breeding) [4]						✓		
A142 Northern Lapwing *Vanellus vanellus* (Non-breeding) [4]						✓	✓	
A149 Dunlin *Calidris alpina alpina* (Non-breeding)		✓	✓					
A158 Whimbrel *Numenius phaeopus* (Non-breeding)			✓					
A162 Common redshank *Tringa totanus* (Non-breeding)[4]		✓	✓					
A394 Greater white-fronted goose *Anser albifrons albifrons* (Non-breeding)		✓	✓					
Waterbird assemblage (non-breeding)		✓[5]	✓			✓[6]	✓	
Wetland invertebrate assemblage							✓[7]	
6210 Semi-natural dry grasslands and scrubland facies: on calcareous substrates *(Festuco-Brometalia)*				✓				✓

Qualifying feature	Severn Estuary SAC	Severn Estuary SPA	Severn Estuary Ramsar Site	Mendip Limestone Grasslands SAC	Chew Valley Lakes SPA	Somerset Levels and Moors SPA	Somerset Levels and Moors Ramsar site	North Somerset and Mendip Bats SAC
4030 European dry heaths				✓				
8310 Caves not open to the public				✓				✓
9180 Tilio-Acerion forests of slopes, screes and ravines				✓				✓
1303 Lesser Horseshoe Bat *Rhinolophus hipposideros*								✓
1304 Greater Horseshoe Bat *Rhinolophus ferrumequinum*				✓				✓

Notes on table 3

[1]There have been three reviews of the UK Network of SPAs to assess the network's sufficiency of protection for qualifying bird species. These reviews have made recommendations for the addition of various species as features of the Severn Estuary SPA and Somerset Levels and Moors SPA. None of these recommended features have been formally added as qualifying features of the respective SPAs and there are no current plans to do so. Such un-designated SPA review features are not therefore legally protected in the same way as qualifying features of SPAs, but are given due consideration in this assessment. In relation to the Severn Estuary SPA this applies to: wigeon *Anas penelope*, teal *Anas crecca*, mallard *Anas platyrhynchos*, pintail *Anas acuta*, shoveler *Anas* clypeata, pochard *Aythya ferina*, tufted duck *Aythya fuligula*, ringed plover, grey plover *Pluvialis squatarola*, lapwing *Vanellus vanellus*, whimbrel and curlew *Numenius arquata* [Ref 51].

[2]Subsequent reviews of the Somerset Levels and Moors SPA classification identified that the site then supported nationally important populations of gadwall, wigeon, pintail, shoveler, whimbrel and snipe *Gallinago gallinago* [Ref. 51]. These species have not been incorporated into the citation and there are no current plans to do so, but they form part of the assemblage feature and are given due consideration in this assessment (see note 1 above).

[3] The following are cited as contributing to the SAC estuaries feature, each of which are considered in the assessment that follows: subtidal sandbanks, intertidal mudflats and sandflats, Atlantic salt meadows, reefs, hard substrate habitats (including eel grass beds) and notable estuarine assemblages. There are 3 notable estuarine assemblages: fish species, waterfowl species and vascular plant species. The same features are listed as components of the Ramsar estuaries feature, with the exception of subtidal sandbanks, which are located beyond the boundary of the Ramsar site.

[4] In this assessment, we adopt commonly used abbreviated names to refer to the waterbirds listed by their full names in each citation, as follows:

- Common shelduck – shelduck
- Eurasian teal – teal
- Northern shoveler – shoveler
- European golden plover – golden plover
- Northern lapwing - lapwing
- Common redshank - redshank

[5] The waterbird assemblage of the Severn Estuary SPA consisted of 82,484 birds, calculated as a 5 year peak mean between 2012/13 and 2016/17. In addition to the 8 avian qualifying features listed above it in table 3, the following are cited as contributing to the SPA assemblage: pintail, curlew, wigeon, teal, pochard, tufted duck, grey plover, spotted redshank *Tringa Erythropus* [Ref.42].

[6] The waterbird *assemblage of the Somerset Levels and Moors SPA site consisted of 90,205 birds, calculated as a 5 year peak mean between 2012/13 and 2016*/17. In addition to golden plover, teal and lapwing (which are qualifying features listed above it in table 3) the following are the main components of the SPA assemblage: gadwall, wigeon, shoveler, pintail and mute swan *Cygnus olor* [Ref. 41, p.7].

[7] The following wetland invertebrate species are cited as contributing to the assemblage of the Somerset Levels and Moors Ramsar site: *Hydrochara caraboides, Bagous nodulosus, Odontomyia angulata, Oulema erichsoni, Valvata macrostoma, Odontomyia ornata, Stethophyma grossum, Pteromicra leucopeza, Lejops vittata, Cantharis fusca, Paederus caligatus, Hydaticus transversalis, Dytiscus dimidiatus, Hydrophilus piceus, Limnebus aluta, Laccornis oblongus* [Ref. 19].

B2. European Site Conservation Objectives (including supplementary advice)

B2.1 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.

B2.2 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 and/or Wild Birds Directive, 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.

B2.3 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.

B2.4 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 and supplementary advice, all published at www.designatedsites.naturalengland.org.uk:

- The Severn Estuary SAC Conservation Objectives
- The Severn Estuary SPA Conservation Objectives
- The Severn Estuary Ramsar Information Sheet
- Supplementary advice on the conservation objectives for the Severn Estuary SAC and SPA
- The Mendips Limestone Grasslands SAC Conservation Objectives
- Supplementary advice on the conservation objectives for the Mendips Limestone Grasslands SAC
- The Chew Valley Lake SPA Conservation Objectives
- Supplementary advice on the conservation objectives for the Chew Valley Lake SPA
- The Somerset Levels and Moors SPA Conservation Objectives
- The Somerset Levels and Moors Ramsar Information Sheet
- Supplementary advice on the conservation objectives for the Somerset Levels and Moors SPA
- The North Somerset and Mendip Bats SAC Conservation Objectives
- Supplementary advice on the conservation objectives for the North Somerset and Mendip Bats SAC

B2.5 For Ramsar sites, a decision has been made by Defra and Natural England not to produce Conservation Advice packages, instead focussing on the production of High Level Conservation Objectives. As the provisions on the Habitats Regulations relating to Habitat Regulations Assessments extend to Ramsar sites, Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests.

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)?

C1.1 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 all of the European site(s)'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')?

C2.0.1 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.

C2.0.2 In accordance with European 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).

C2.0.3 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).

C2.0.4 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

C2.1.1 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.

C2.1.2 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.

C2.1.3 For the purposes of this assessment, the qualifying features of the European Sites listed in B1 have been grouped as follows:

Table 4. Feature groups

Feature group	Qualifying feature(s)
Subtidal sandbanks	Sandbanks which are slightly covered by sea water all the time; estuaries (subtidal sandbanks component)
Biogenic reefs	Reefs; estuaries (reefs component)
Fish and prey species	Assemblage of migratory fish; sea lamprey; river lamprey; twaite shad; allis shad; atlantic salmon; sea trout; European eel; estuaries (assemblage of fish species component)
Rocky shores	Estuaries (hard substrates and assemblage of vascular plants components)
Intertidal mudflats and sandflats	Mudflats and sandflats not covered by sea water at low tide; estuaries (intertidal mudflats and sandflats component)
Saltmarsh	Atlantic salt meadows; estuaries (atlantic salt meadows and assemblage of vascular plant species components)
Bewick's swan, greater white-fronted goose	Bewick's swan (non-breeding); greater white-fronted goose (non-breeding); estuaries (assemblage of waterfowl species component)
Other non-breeding waterbirds	Waterbird assemblage; shelduck; gadwall; teal; shoveler; ringed plover; golden plover, lapwing; dunlin; whimbrel; redshank; estuaries (assemblage of waterfowl species component)
Wetland invertebrate assemblage	Wetland invertebrate assemblage
Limestone grassland and scrub	Semi-natural dry grasslands and scrubland facies on calcareous substrates

Limestone heath and forest slopes	European dry heaths; Tilio-Acerion forests of slopes, screes and ravines
Bats	Caves not open to the public; greater horseshoe bat; lesser horseshoe bat

Table 5. Assessment of likely significant effects alone

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
Subtidal sandbanks	Physical damage	Sand banks are not sensitive to access on foot or risks associated with path construction.	Subtidal sandbanks are generally remote from existing paths and potential locations for new paths. They would not form part of the coastal margin. The intertidal land adjoining them is generally difficult or dangerous to walk on. As such there is negligible scope for interaction.	No
Subtidal sandbanks	Contamination	Construction materials, including fuel and other synthetic compounds associated with motorised vehicles and plant, could affect biological communities in sandbanks if allowed to contaminate tidal water.	There is no appreciable risk because pollution prevention measures are inherent to the access proposals and will be adopted as standard during the construction (establishment) phase of the project.	No
Reefs	Physical damage	Reefs formed by the tube-dwelling worm *Sabellaria alveolata* can be damaged if people walk on them.	Intertidal areas of biogenic *Sabellaria* reef may be at risk if they are within the coastal margin and readily accessible from the shoreline, for example because they are joined to it by rock.	Yes
Reefs	Contamination	Construction materials, including fuel and other synthetic compunds associated with motorised vehicles and plant, could affect biogenic reefs by changing the composition of the surrounding water.	There is no appreciable risk because pollution prevention measures are inherent to the access proposals and will be adopted as standard during the construction (establishment) phase of the project.	No
Fish and prey species	Selective extraction	Populations of key migratory fish species and their prey could be vulnerable to an	Recreational shore angling is currently in decline although there are places on the Severn	No

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		increase in bait digging and/or recreational angling. Other, non-migratory fish are cited as contributing to the estuary and are also, in theory, susceptible to this pressure. The assessment in the column to the right therefore applies to estuarine fish more generally, which are a component of the estuaries feature. This assemblage of fish includes, but is not limited to, migratory fish.	where it is active and long-established. There is no evidence of an increase in activity as a result of the 2015 introduction of coastal access rights in the lower reaches of the estuary between Brean Down and Lilstock [Ref. 12]. Shore angling is regarded as not having a significant impact on local fish stocks [Ref. 12]. Any impacts on the assemblage is therefore regarded as inconsequential. There would be no new right to gather prey species by hand including bait digging. There would be widespread exclusion of access rights to intertidal areas where hand-gathering might take place. There are plans to introduce byelaws to regulate hand gathering.	
Fish and prey species	Contamination	Construction materials, including fuel and other synthetic compunds associated with motorised vehicles and plant, could affect fish survival by changing the composition of the surrounding water.	Pollution prevention measures will be adopted as standard during the construction (establishment) phase of the project [Ref. 14]. Works will be subject to flood defence consent.	No
Rocky shores	Physical damage	Hard substrate habitats (rocky shores) are cited as contributing to the estuaries feature. Rocky shores are not vulnerable to physical damage from recreation on foot, but provide a growing medium for eelgrass beds, which are also cited as contributing to the assemblage of vascular plants that is a component of the estuary feature.	The only known Eelgrass bed on the English side of the estuary, is at Bridgwater Bay, which is outside the scope of the proposals. Dwarf Eelgrass is not believed to be present on the English side of the Severn Estuary and, as a subtidal species, would not occur in the coastal margin.	No

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		There are two relevant species: eelgrass *Zostera marina* and dwarf eelgrass *Zostera noltei.*Both can be damaged or destroyed by people walking on them.		
Intertidal mudflats and sandflats	Physical damage	Small plants and the burrows of small creatures living in the top layer of sand and mud flats may be compacted if people walk on them. Compaction can cause the burrows to collapse. These communities are resilient to occasional compaction caused by people who venture out at low tide, because the structure of the surrounding substrate is restored by the next tide. However, repeated or widespread compaction may result in localised losses of sensitive species and/or reduce food availability for waterbirds and some fish species.	It is well understood locally that flats are dangerous to walk on because of the soft mud and extreme tidal range. There will be widespread exclusion of access rights to areas of mud and sand that are considered unsuitable for a general right of access. This will be advertised on the web. Where exclusions are not proposed, it is because the flats closest to the shore are already used for beach activities. There are warning signs at these locations and/or lifeguards to discourage people from leaving the upper shore. We conclude that there is no credible risk of significant damage as a result of the proposals.	No
Intertidal flats	Contaminatio n	Construction materials, including fuel and other synthetic compunds associated with motorised vehicles and plant, could affect biological communities of intertidal flats by changing the composition of the surrounding water.	There is no appreciable risk because pollution prevention measures are inherent to the access proposals and will be adopted as standard during the construction (establishment) phase of the project.	No
Saltmarsh	Physical damage	Saltmarsh is supporting habitat for certain species of vascular plants that form part of the assemblage of vascular plants, a component of the estuaries feature. It is also a qualifying feature in its own right.	The coast path may pass over areas of drier saltmarsh or be directly adjacent to saltmarsh. Saltmarsh may also form part of the coastal margin and be subject to new access rights. Significant effects on saltmarsh vegetation communities cannot	Yes

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		Those saltmarsh species that are cited as contributing to the assemblage are tolerant of some degree of trampling underfoot or exhibit a preference for moderate levels of disturbance. The exception is Marsh Mallow *Althaea officinalis.* More generally, saltmarsh vegetation can be damaged or destroyed by people repeatedly walking on the same part of it. This creates bare areas which make the surrounding saltmarsh vegetation more vulnerable to erosion and loss. Saltmarsh could also be damaged during works to establish the coast path, in places where it is directly adjacent to the saltmarsh.	therefore be ruled out at this stage of the assessment. Marsh Mallow, however, generally grows on, or just in front of, the seaward face of sea defences and is therefore unlikely to be disturbed by walkers.	
Saltmarsh	Introduction or spread of undesirable species	If seeds or rhizomes from undesirable species are introduced to the site or unwittingly spread across it, they may out-compete species that are rare and/or characteristic of the qualifying habitat, leading to habitat loss.	There is no appreciable risk because measures to avoid introduction or spread of undesirable diseases are inherent to the access proposals and will be adopted as standard during the construction (establishment) phase of the project. There is no appreciable risk of walkers unwittingly introducing or spreading undesirable species at the site.	No
Saltmarsh	Contamination	Construction materials, including fuel and other chemicals associated with motorised vehicles and plant, could affect biological communities of saltmarsh by contamination.	Pollution Prevention measures will be adopted as standard during the construction (establishment) phase of the project.	No
Bewick's swan,	Disturbance of feeding or	Waterbirds feeding on the foreshore or roosting in the	These species rarely occur between Aust and Brean Down.	No

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
greater white-fronted goose	roosting waterbirds	vicinity of a coastal path may be disturbed by recreational activities including walking and walking with a dog. Bewick's swan and greater white-fronted goose are considered sensitive to disturbance of this kind.	Bewick's swan and greater white-fronted goose prefer the parts of the SPA further upstream than Aust, around Slimbridge near Frampton-on Severn. As such the scope for interaction with the access proposals is considered inconsequential.	
Other non-breeding waterbirds	Disturbance of feeding or resting (roosting) waterbirds other than Bewick's swan and greater white-fronted goose	Birds feeding on the foreshore or roosting in the vicinity of a coastal path may be disturbed by recreational activities including walking and walking with a dog. There is also scope for disturbance from construction activities necessary for the physical establishment of the path.	Waterbirds are present in significant numbers in many locations on this part of the site so a significant effect is considered likely at this stage of the assessment.	Yes
Other non-breeding waterbirds	Disturbance of breeding birds	The breeding population of a species may contribute to the non-breeding population of a site by being wholly or largely resident. Breeding birds are potentially at risk from disturbance by recreational activities including walking and walking with a dog. There is also scope for disturbance from construction activities necessary for the physical establishment of the path. Ground-nesting birds may leave their nests when disturbed; this leaves their eggs and chicks are more vulnerable to mortality through exposure and/or predation. Juvenile birds, having left the nest, are also at risk from	The level of risk is higher at places where a breeding population of a species significantly contributes to the non-breeding population. Most adult waterbirds leave this part of the Severn Estuary to breed. Those that stay are not considered to contribute significantly to the non-breeding population. However, juvenile shelduck gather after leaving their nests in notable crèches on the Congresbury Yeo river, where there is potential for interaction with coastal access users.	Yes

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		disturbance. Before they are able to fly, they are vulnerable to predation by dogs.		
Wetland invertebrate assemblage	Physical damage	Wetland habitats that support invertebrate species could be damaged by repeated trampling, reducing population or distribution of the species within the site	Somerset Levels and Moors wetland habitats are 14Km from the nearest land affected by the coast path proposals and hence there is no scope for interaction with the project.	No
Limestone grassland and scrub	Physical damage	Limestone grassland vegetation can be damaged or destroyed by people repeatedly walking on the same part of it. This creates bare patches and localised soil erosion, which make the surrounding vegetation more vulnerable to erosion and loss.	Grassland at Brean Down and Uphill could be damaged if the coast path crossed it. Localised damage to grassland within the wider coastal margin cannot be ruled out without further assessment.	Yes
Limestone grassland and scrub	Introduction or spread of undesirable species	If seeds or rhizomes from undesirable species are introduced to the site or unwittingly spread across it, they may out-compete species that are rare or characteristic of the qualifying habitats, leading to habitat loss.	Measures to avoid introduction or spread of undesirable species are followed as standard during the establishment phase, irrespective of the risk at each specific location. There is no appreciable risk of walkers unwittingly introducing undesirable species or aiding their spread across the site.	No
Limestone heath and forest slopes	Abrasion and physical disturbance	The vegetation of dry heaths and forest slopes can be damaged or destroyed by people repeatedly walking on the same part of it. This creates bare patches and localised soil erosion, which make the surrounding vegetation more vulnerable to erosion and loss.	European dry heath and Tilio-Acerion forests of slopes, screes and ravines are not present at the coast. These habitats would not be part of, or adjacent to, any part of the coastal margin so there is no scope for interaction with the proposals.	No
Bats	Disturbance to lesser and	Bats are not generally vulnerable to disturbance from recreational activity on	There are natural caves at Uphill Cliff that appear suitable as bat hibernacula but there no	Yes

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
	greater horseshoe bat	foot except when roosting or hibernating. Caves that are not frequently visited may host species that are vulnerable to disturbance. In particular, lesser and greater horseshoe bats use natural caves and abandoned mine workings for winter hibernation and, occasionally, to roost during the breeding season, as an alternative to their main maternity roosts. Bats may leave these sites temporarily if they are disturbed. If they are disturbed repeatedly they may desert the site altogether, instead choosing a site that is less suitable and may therefore place them at greater risk. In waking and flying during hibernation they deplete fat reserves and may as a result be less likely to survive the winter.	records of them being used as such [Ref. 55]. The caves are in an area landward of the proposed coastal path and margin to which access is controlled. On the basis of this evidence we have concluded that there is no scope for interaction with the proposals at this location. A 2016 survey of Brean Down [Ref. 4] found evidence of several bat roosts, including roosts used by greater horseshoe bat, on land that would be coastal margin and hence potentially vulnerable to any increase in access-related disturbance. The risk requires further assessment at this location. There is no evidence that lesser horseshoe bats use any of the roost sites mentioned above and there are no known roost sites for lesser horseshoe bat at any other location within the corridor of land that will be coastal margin under the access proposals. On that basis we exclude lesser horseshoe bat from further consideration in respect of this pressure.	
Bats	Loss of hedgerow habitat used by bats to navigate and forage	The removal of hedgerows can affect bats' ability to navigate through the landscape. Bats also forage in hedgerows, because prey species from surrounding grassland habitat collect in them. Planners and developers in North Somerset are advised to consider such impacts at the following distances: • greater horseshoe bat	No large scale hedgerow removal is proposed for this project. Small (3 to 4 metre) gaps may be cut into existing hedgerows to allow new paths to cross field boundaries. These would not affect bats' ability to navigate or feed. No such proposals occur within the risk zones around known roost sites for lesser or greater horseshoe bat.	No

Feature group	Relevant pressure	Sensitivity to coastal access proposals	Assessment of risk to site conservation objectives	LSE alone?
		8km from maternity roost, 4.5Km from other roost; • lesser horseshoe bat 4.1km from maternity roost, 1.25Km from other roost. {Ref. 6, p.12]		

Conclusion:

The plan or project alone is likely to have a significant effect on the following qualifying features: reefs; atlantic salt meadows; waterbird assemblage; shelduck; gadwall; teal; shoveler; ringed plover; golden plover; lapwing; dunlin; whimbrel; redshank; estuaries (reefs, saltmarsh and assemblage of waterfowl components only); semi-natural dry grasslands and scrubland facies on calcareous substrates; caves that are not open to the public; greater horseshoe bat.

The plan or project alone is unlikely to have a significant effect on the following qualifying features groups: sandbanks which are slightly covered by sea water all the time; mudflats and sandflats not covered by sea water at low tide; assemblage of migratory fish; sea lamprey; river lamprey; twaite shad; allis shad; atlantic salmon; sea trout; European eel; Bewick's swan; greater white-fronted goose; estuaries (sandbanks, hard substrates, assemblage of vascular plants and assemblage of fish components only); wetland invertebrate assemblage; European dry heaths; Tilio-Acerion forests of slopes, screes and ravines, lesser horseshoe bat.

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

C2.2.1 The need for further assessment of the risk of in-combination effects is considered here.

C2.2.2 Natural England considers that it is the appreciable risks of effects (from a proposed plan or project) that are not 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.

C2.2.3 Further to the risks identified as being significant alone above, it is considered that there are no other residual and appreciable risks likely to arise from this project which 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

C3.1 On the basis of the details submitted, Natural England has considered the plan or project under Regulation 64(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

D1.1 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.

D1.2 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:

Table 6. Scope of Appropriate Assessment

Environmental pressure	Qualifying Feature(s) affected	Risk to Conservation Objectives
Physical damage to sensitive habitats	• Reefs • Atlantic salt meadows • Estuaries[1] • Semi-natural dry grasslands and scrubland facies on calcareous substrates	More frequent trampling in areas of intertidal reef, salt marsh or limestone grassland, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site. Physical damage to saltmarsh or limestone grassland during path establishment work leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.
Disturbance of non-breeding waterbirds	• Waterbird assemblage • Shelduck • Gadwall • Teal • Shoveler • Ringed Plover • Lapwing • Dunlin • Whimbrel • Redshank • Estuaries[1]	More frequent disturbance to feeding or roosting (resting) waterbirds (non-breeding), following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site. Disturbance to feeding or roosting waterbirds (non-breeding), during path establishment work, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.
Disturbance of non-breeding birds	• Shelduck	More frequent disturbance to juvenile shelduck, following changes in recreational activities as a result of the access proposal, leads to increased mortality and a resultant reduction in the non-breeding population within the site.

		Disturbance to juvenile shelduck during path establishment work, leads to increased mortality and a resultant reduction in the non-breeding population within the site.
Disturbance to bats	• Caves not open to the public • Greater horseshoe bat	More frequent disturbance to roosting or hibernating bats, following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.

[1]The waterbird, saltmarsh and reef features listed in table 6 are all cited as contributing to 'estuaries', which is a qualifying feature of the Severn Estuary SAC and Ramsar in its own right (see table 4). The estuaries feature is itself sensitive to the coastal access proposals only to the extent that these other qualifying features are affected. For this reason we do not separately consider effects on the estuaries feature in this 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

D2.1 Severn Estuary European Marine Site

D2.1.1. The Severn Estuary European Marine Site is a term normally used to refer collectively to the Severn Estuary SAC, SPA and Ramsar sites. The Site Improvement Plan for the Severn Estuary European Marine Site (SIP) lists public access/disturbance as an existing pressure and/or threat to waterbird, saltmarsh and reef features on the Severn estuary [Ref. 44]. There are aspirations to understand this issue better: the plan includes a measure to identify/reduce impacts of disturbance to birds and damage to habitats, which it translates into the following agreed actions for the delivery partners, including Natural England:

> 1a. Understand how the Estuary is used and accessed for recreational purposes (water and land based), to inform current management and future development
>
> 1b. Understand how the site is currently used by bird populations, identifying key locations (roosting, feeding), and particularly sensitive areas.
>
> 1c. Develop a strategic approach to visitor management.
>
> 1d. Undertake a programme of targeted education and awareness raising amongst recreational user groups (angling groups, visitors, local residents etc).
>
> 1e. Install signage to manage user activities.

D2.1.2 With respect to SIP action 1b, research commissioned by Natural England during the preparation of the access proposals between Aust and Brean Down identified key roost locations on the English side of the estuary, including between Aust and Brean Down. The research also contributed to an understanding of how the estuary is used and accessed for recreational purposes (SIP action 1a) by describing the nature of existing disturbance, if any, at each roost. There is less data about feeding locations: our assessment relies on data from the periodic Wetland Birds Survey (WeBS) low tide counts [Ref. 57].

D2.1.3 The Aust to Brean Down stretch includes coastal towns at Severn Beach, Portishead, Clevedon and Weston-super-Mare, with a significant coastal tourism sector centred around Weston-super-Mare. Much of it is already accessible on foot via established footpaths, some of which form part of promoted routes, but there are areas where access on foot is very limited and the risk of disturbance from recreational activities is correspondingly smaller: around the Avonmouth and Royal Portbury Docks (see section D3.2B), between Clevedon and St Thomas Head (section D3.2D) and the west bank of the Axe (section D3.2F). The detailed assessment in section D3.2 below contributes significantly to understanding of how the estuary is currently used and accessed for recreational purposes (SIP action 1a), drawing extensively on the knowledge of local authority officers managing existing public footpaths at the coast, supplemented by our observations over the past five years of fieldwork in preparing the access proposals and those of WeBS counters as recorded by Latham [Ref. 21] and Woodward et al. [Ref. 58] and in personal communications with Natural England officers.

D2.1.4 As yet there no comprehensive strategic approach to visitor management for the whole site (SIP action 1c). However, the Association of Severn Estuary Relevant Authorities (ASERA) has published a Management Scheme for relevant authorities [Ref. 2] and a Code of Practice for recreational users [Ref. 1] which are seen as initial steps towards this aspiration. The Management Scheme highlights the potential for land-based recreation to cause physical impacts on habitats and disturbance to waterbirds [Ref. 2, pp. 35-36] and the code of practice describes user behaviours that will avoid or mitigate these effects. The England Coast Path access proposals develop these user behaviours into a strategic approach to access user management between Aust and Brean Down, which is described in more detail in section D3.1. This will contribute significantly to further progress with SIP action 1c.

D2.1.5 There are visitor management plans and/or measures for various popular sites between Aust and Brean Down including Pilning Wetlands (map A1), Ashlands Nature Reserve (map B2), Sand Bay (map E), Weston Bay (no map), Uphill and Walborough Nature Reserves (map F) and the Bleadon Levels (map F). There is existing environmental interpretation at these and other locations, sponsored by various public and voluntary bodies. The England Coast Path access proposals include further, detailed visitor management measures at specific locations, including signs and notices to raise public awareness and manage visitor use, as described in section D3.2. Together these contribute significantly to progress with the remaining Site Improvement Plan actions 1d and 1e.

D2.2 Reefs

D2.2.1 Reefs include areas of rocky shore, shingle and pools that are not sensitive to the recreational activity and areas of biogenic reef formed by the tubeworm *Sabellaria alveolata* ('biogenic reefs'), often attached to rocks, that are vulnerable to physical damage from people on foot.

D2.2.2 Biogenic reefs may be covered by sea water all the time (subtidal) or intertidal. Our assessment focusses on intertidal biogenic reefs that would form part of the coastal margin under the proposals. Subtidal reefs are not considered vulnerable to recreational activity on foot, except to the extent that they are joined to areas of intertidal reef. Known locations of intertidal biogenic reef between Aust and Brean Down are indicated on maps G, H and I and summarised in table 8.

D2.2.3 As part of the Supplementary Advice on Conservation Objectives published in 2009 [Ref. 42], Natural England set a target to maintain the biogenic reef feature in favourable condition. This means maintaining the following attributes – extent, distribution, community composition, full range of age structures, and the physical and ecological processes necessary to support it [Ref. 42, p.64]. Baselines were established for some of these attributes using survey work conducted between 1988 and 2006 [Ref. 42, pp.90-91], but there is no recent information about the conservation status of the feature.

D2.2.4 Biogenic reefs are considered moderately to highly sensitive to physical damage, but at low exposure to operations (including recreation) that might cause it [Ref. 42, p.155]. We can find no recorded instances of damage to reefs from recreational activity between Aust and Brean Down. We therefore rely on site inspection and desk analysis to determine whether reefs at each location are at risk.

D2.3 Saltmarsh (Atlantic salt meadows)

D2.3.1 It is estimated in 2000 that there is 1400 hectares of saltmarsh on the site comprising four distinct transitional vegetation communities from pioneer to transitional high marsh and incorporating characteristic steps (low cliffs) and pills (creeks) [Ref. 42, p.61].

D2.3.2 As part of the Supplementary Advice on Conservation Objectives published in 2009 [Ref. 42], Natural England set a target to maintain the saltmarsh feature in favourable condition. This means maintaining the attributes relating to: overall extent; extent, distribution and zonation of the component communities; species abundance; sward structure; characteristic landforms and the processes that create them; and the development of *Spartina anglica* saltmarsh into other communities [Ref. 42, p.60].

D2.3.3 Baselines were established for these attributes using survey work conducted in 1998; a Severn Estuary SSSI condition assessment in 2010 recorded deterioration in some locations, attributed to lack of, or inappropriate, grazing. Recreational pressure is not recorded as a factor in the 2010 condition assessment [Ref. 27]

D2.3.4 The 2010 condition assessment also recorded some localised gains and losses in overall extent. Recreational pressure was not recorded as a factor in these losses: the main pressure on

saltmarsh habitat remains coastal squeeze, a process in which saltmarsh is trapped between rising sea levels and manmade sea defence structures. It was estimated that some 300 hectares of intertidal habitat (including intertidal mud and sand flats as well as saltmarsh) will be lost in this way by 2025 [Ref. 15], p.7]. This loss has been offset by compensatory schemes including Steart Marshes, at the southern end of the site beyond Brean Down.

D2.3.5 Site inspections between Aust and Brean Down confirm that there is currently no widespread damage to saltmarsh as a result of recreation on foot. Where damage has occurred, it takes the form of well-established, narrow pathways of bare ground and trampled vegetation across mid and upper saltmarsh communities. These pathways are typically visible on aerial photography dating back to 1999 [Ref. 16].

D2.4 Non-breeding waterbirds

D2.4.1 The Waterbird assemblage of the Severn Estuary is one of the 15 largest aggregations in the United Kingdom according to the British Trust for Ornithology (BTO) Wetland Bird Survey, the principal scheme for monitoring the UK's non-breeding waterbirds. It supports significant populations of waterbirds over winter, notably shelduck, gadwall, dunlin and redshank, and is an important staging area in summer/autumn and spring for migratory waterbirds, notably whimbrel and ringed plover. Non-breeding waterbirds from the nearby Chew Valley Lake SPA and Somerset Levels and Moors SPA visit the Severn Estuary, in particular during cold weather when their freshwater habitats are frozen, notably teal, shoveler, golden plover and lapwing.

D2.4.2 As part of the Supplementary Advice on Conservation Objectives for the Severn Estuary European Marine Site published in 2009 [Ref. 42], Natural England set targets to maintain the SPA waterbird features and their supporting habitats in favourable condition. Supporting habitats in this context include intertidal feeding areas and high tide roosting areas on upper saltmarsh, sea banks/seawalls and nearby wet grassland and freshwater habitats. Waterbirds sometimes roost and feed on wet grassland and freshwater habitats that are not part of the designated site. Where there is evidence that this takes place the land is treated as supporting habitat in this assessment.

D2.4.3 The overall targets for waterbirds features are explained further in the Advice in terms of maintaining attributes relating to: population; extent of supporting habitats; food availability; vegetation characteristics; sightlines at feeding and roosting sites; and disturbance [R3ef. 35, pp.101-105].

D2.4.4 Of these attributes, only population has established baselines against which the conservation status of each waterbird feature can be measured. These targets are expressed in terms of the 5 year peak mean count by WeBs. Recent WeBS data [Ref. 57] shows, in relation to the qualifying features under consideration, that:

- the waterbird assemblage is meeting its population target;
- redshank and shelduck are meeting their population target and increasing locally;
- dunlin is not meeting the site population target but the local decline is in line with national trends;
- gadwall is not meeting its site population target, in spite of national and regional increases;

- there are no site population targets for Ringed Plover and Whimbrel, but both are on the UK red list of birds regarded as of urgent conservation concern.

D2.4.5 The attribute of disturbance at feeding and roosting areas is most relevant to this assessment, for which the target is 'no significant reduction in numbers or distribution attributable to disturbance from an established baseline'. In this assessment, in addition to information on population and distribution of waterbirds, we draw on any more detailed analysis available in published reports [Ref. 21, 58].

D2.4.6 Various waterbird species are included in this assessment on the basis that they have been recommended for inclusion in the Severn Estuary or Somerset Levels and Moors SPA but have not yet been incorporated into the respective citations (see the notes to table 2 in part B). Of these:

- lapwing and curlew are of particular concern, being among the species listed for priority action under section 41 of the Natural Environment and Rural Communities Act 2006 [Ref. 45] and appear on the most recent 'red list' of birds of special conservation concern [Ref. 5]
- pintail and pochard are not considered further on the basis that they do not regularly occur in significant numbers between Aust and Brean [Ref. 7, 21, 58, 59].

D2.4.7 The Severn Estuary waterbird assemblage includes, in addition to species described above, the following species which occur at specific locations in numbers that we consider significant in terms of their contribution to the overall diversity of the assemblage: bar-tailed godwit *Limosa lapponica*, black-tailed godwit *Limosa limosa*, common sandpiper *Actitis hypoleucos*, green sandpiper *Tringa ochropus*, little grebe *Tachybaptus ruficollis*, little egret *Egretta garzetta*, turnstone *Arenaria interpres*. Of these, black-trailed godwit is of particular concern, being among the species listed for priority action under section 41 of the Natural Environment and Rural Communities Act 2006 [Ref. 45], and also appears on the most recent 'red list' of birds of special conservation concern [Ref. 5]. Gulls and terns are also waterbirds, but are not considered in this assessment because they are not vulnerable to disturbance from the access changes proposed.

D2.4.8 The local breeding population of shelduck is also considered because there is evidence that it may make a significant contribution the non-breeding population of the Severn Estuary [Ref. 10, 13]. Shelduck breed outside the site and it is not anticipated that the access proposals would disturb the breeding population. However, of concern is that once hatched, young birds gather in crèches within the SPA.

D2.4.9 On the Severn, disturbance can be problematic because it reduces the time available to birds for feeding and resting and may increase energy expenditure, for example if it results in flight. Repeated disturbance at a favoured feeding or roosting site may significantly reduce its function as supporting habitat.

D2.4.10 Most waders and some waterfowl are considered more vulnerable to disturbance at high tide, when available habitat is greatly reduced and many birds roost on or just above the waterline. There are places on the Severn where this is effect is more pronounced because the belt of saltmarsh below the seawall has been lost to erosion and birds are roosting on or closer to the seawall instead. The reverse may also be true, in places where saltmarsh is accreting.

D2.4.11 At low tide waterbirds are generally less vulnerable to disturbance because there is extensive feeding and resting habitat on the intertidal flats in the main estuary, further from places where recreational activity normally takes place. There are notable exceptions to this rule on the Severn, for example:

- Redshank and gadwall may favour narrow tributaries and creeks for feeding at low tide;
- Certain species sometimes feed on saltmarsh at low tide, including curlew and wigeon.
- Ringed plover feed on the upper shore in sand, shingle and strand lines
- Juvenile shelduck crèche on the Congresbury Yeo river where they may be in close proximity to the riverbank.

D2.4.12 There is anecdotal evidence that recreation on foot is causing disturbance at some locations on the estuary. This includes two published reports which identify the location and relative importance of sites used by waterbirds to roost at high tide along the Severn estuary [Ref. 21, 58].

D2.4.13 Waterbirds from other key UK sites to the north and east often visit the Severn during harsh weather because the temperature there is generally milder. Waterbirds from Chew Valley Lake SPA and Somerset Levels and Moors SPA are thought to move to the coast when freshwater freezes [Ref. 41, p.3; Ref 7, p47]. There is evidence that waterbirds from Chew Valley Lake SPA and the Somerset Moors and Levels SPA visit Bridgwater Bay, Newport Wetlands and Slimbridge [Ref. 8, p.118]. None of these three areas are between Aust and Brean Down, but it is possible that waterbirds from these nearby SPAs also visit the part of the estuary between Aust to Brean. Should they do so, we would expect them to utilise the site in a similar way to waterbirds normally overwintering on the Severn Estuary and we have designed and assessed our access proposals accordingly.

D2.4.14 Waterbirds are also vulnerable to disturbance during migration when their energy reserves are depleted. On the Severn Estuary, there is a short period in Spring after the spring migration has finished and before the summer/autumn migration begins when sensitivity is lower. This period of lower sensitivity can be very brief, depending how particular species use the site: whimbrel, for example, appear on passage until mid-May, whilst curlew start to return to the Severn in the second half of June.

D2.5 Limestone grassland
(Semi-natural dry grasslands and scrubland facies on calcareous substrates)

D2.5.1 The limestone grassland at Brean and Uphill forms part of the largest area of its type in England. It includes vegetation communities that occur nowhere else in the United Kingdom and individual species of vascular plant that are rare or unusual. Its conservation status is linked to maintaining its overall extent and composition.

D2.5.2 As part of the Supplementary Advice on Conservation Objectives published in 2009 [Ref. 39], Natural England set a target to maintain (or, if necessary, restore) the grassland feature in favourable condition. Localised erosion of grassland by walkers can be problematic if it affects the abundance of particular vegetation communities or species, whilst more extensive erosion may cause a significant effect on the overall extent and distribution of the feature.

D2.5.3 The most recent condition assessments for Brean Down and Uphill Sites of Special Scientific Interest in 2009 record the condition of the grassland feature as favourable [Ref. 26,28]. Erosion is not currently listed as a priority issue in the Site Improvement Plan [Ref. 43]. However, bare paths in limestone grassland have developed at both Uphill and Brean Down along established public footpaths and other existing walked routes where trampling has suppressed the characteristic vegetation.

D2.5.4 The Brean Down Conservation Management Plan identifies erosion from footfall and mountain biking as a potential issue at Brean Down [Ref. 54]. However, erosion has not increased on Brean Down since 1996 when monitoring started against a background of significantly increased use [Ref. 17]. This analysis is supported by aerial photography since 1999 [Ref. 16].

D2.6 Greater horseshoe bats

D2.6.1 The Mendip Grassland SAC supports a significant population of greater horseshoe bats. In winter they rely on caves and other underground sites for undisturbed hibernation. Natural England's target is to maintain (or, if necessary, restore) the population of greater horseshoe bats. Disturbance to hibernation sites can cause the bats to desert them, or in leaving the site to lose energy in winter when food is scarce.

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

D3.0.1 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.

D3.0.2 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 – at a stretch level

Physical damage to sensitive habitats

D3.1.1 Maps G, H and I show the location of sensitive habitats between Aust and Brean Down. At each location we have assessed any existing patterns of recreational use and predicted changes that are likely to take place as a result of the proposals. In this we drew extensively on the knowledge and experience of local authority staff, in particular those managing public footpaths at the coast.

D3.1.2 As part of this process we also noted any clearly visible damage that is already occurring to a particular feature as a result of recreational activity on foot. These observations and inferences form the basis for any additional mitigation proposals incorporated into the design of the access proposal.

D3.1.3 Our default is to propose a route that avoids sensitive habitats altogether. In many cases we select an existing route which is part of the site fabric rather than part of the habitat we seek to protect. This limits the scope for damage to sensitive habitat by channelling the heaviest use away from it. In some cases it will also allow damaged saltmarsh to recover by offering a more attractive alternative to an existing path across it.

D3.1.4 Whilst increased use of the wider coastal margin could in theory result in increased damage to sensitive habitats, our detailed assessment concludes that in reality it will not, because most access users will follow the waymarked route as it is more enjoyable and convenient. Our proposals for waterbird refuges help with this, by encouraging people to keep to the path in sensitive areas (see D3.1.11).

D3.1.5 Our choice of route means that the necessary access infrastructure can be installed without any risk of habitat damage during works. Method statements by the local authority managing the works will ensure that this is the case, for example by stipulating safe routes for vehicle access and requiring the use of hand tools where more control is necessary.

D3.1.6 There are a few places where, having considered all the circumstances, we have concluded that it is necessary to install a new post in the ground in an area of saltmarsh (6 locations). In these cases method statements will require the use of hand tools and the replacement of any turf around the base of the post. Doing so will limit habitat loss to 0.1 square metres in each location, a total of 0.6 square metres out of the 1400 hectares (14 million square metres) of saltmarsh habitat on the site. We conclude that the loss is trivial in terms of the conservation objectives for the site.

Disturbance to non-breeding waterbirds from access users

D3.1.7 Our overall approach to waterbird conservation can be summarised as to ensure that there is a functioning network of high-tide roosts and feeding areas on each part of the site that are protected from significant disturbance.

D3.1.8 Since waterbirds are mobile and present in significant numbers in every part of the site, it makes sense to adopt a strategic approach to design of the new access arrangements, in particular to communications with the general public about sensitivities and the behaviour we want people to adopt. This is in line with the Site Improvement Plan for the Severn Estuary European Marine Site (see D2 above).

D3.1.9 We propose a series of branded on-site signs between Aust and Brean in an attractive and distinctive design that will be easily recognisable to regular users and long-distance walkers all along the estuary. The signs will stimulate enjoyment of the waterbird assemblage and understanding of their sensitivity to disturbance.

D3.1.10 The signs will also promote key messages about the behaviour we want walkers to adopt in sensitive locations. The messages will be line with the users' Code of Practice developed by the Severn Estuary Partnership [Ref. 1] and emphasise these general themes: look out for waterbirds, especially around high-tide; keep your distance if you see them and put your dog on a lead until out of sight. Dog control will be a key theme: there is a body of evidence that suggests that disturbance to waterbirds is more significant when dogs are allowed to roam freely. This is backed up by anecdotal evidence locally, including what is recorded in recent published reports [Ref. 21, 58].

D3.1.11 We will promote the most sensitive locations as 'waterbird refuges'. Signs at these locations will ask walkers to keep to the path and keep dogs with them on the path, using a lead if necessary. In places that will be newly accessible under the proposals, these refuges will be subject to statutory access restrictions and exclusions to ensure that desired patterns of behaviour are established from the outset. Typically these will require users to keep to the path by excluding access to the wider coastal margin, but in some places users will also be required to keep their dogs on leads. Dogs on leads restrictions will be clearly signalled at access points and carefully targeted and proportionate because evidence shows this encourages compliance [Ref. 18, pp.28-35].

D3.1.12 We will back these messages up at specific locations with additional physical measures such as guide fencing, which act as a visual clue to encourage people to stick to the way-marked route, or fences/screens which make it much more difficult for people or dogs to leave it.

D3.1.13 We expect many new users to adopt the required patterns of behaviour from the outset, either because they remain on the coast path or because they read the signs and consciously adopt the desired behaviour. In the long-term we expect a reduction in disturbance to waterbirds as existing users moderate their behaviour in response to the information we give them.

D3.1.14 Our assessment of where these measures are necessary is set out in section D3.2 on local design (below). There we draw on WeBs periodic low-tide count data to identify sectors where waterbirds feed in significant numbers. In the tables we provide the sector numbers for the relevant WeBs counts for readers who wish to cross-reference them.

D3.1.15 We also draw extensively in section 3.2D on recent reports by Latham [Ref. 21] and Woodward et al [Ref. 58] which identify high-tide roosts on the English side of the Severn Estuary and classify them as 'primary', 'possible primary' and 'non-primary'. In section D3.2 we consider in detail potential risks to all 'primary' and 'possible primary' roosts so identified. In the tables and maps we use the roost codes assigned by the authors of the two reports for readers who wish to cross-reference them.

D3.1.16 Other roost locations are also considered in section D3.2 because there is other evidence that they are also important roosts, or because we know that they are used by waterbirds but there is not enough evidence to judge their relative importance as roosts. We treat all these locations as supporting habitat for waterbird features, whether or not they fall within the boundaries of the European sites.

D3.1.17 In table 20 we consider the risk of disturbance to juvenile shelduck on the Congresbury Yeo river, which is the key crèche site between Aust and Brean Down. Approximately 90 young shelduck

were observed there in late June [Ref. 46]. This total, if they were to remain in the SPA into the non-breeding season, would represent approximately 2.1% of the current non-breeding shelduck population. Based on typical shelduck survival rates, 32 of the 90 juvenile shelduck could be expected to survive, representing a contribution of 0.73% to the non-breeding qualifying feature population.

D3.1.17 In the tables we also list the species for which each part of the site is considered important and explain whether they are qualifying features of the European site, or another species cited as contributing to the waterbird assemblage, or a waterbird species not so cited. We do not attach particular weight to these categories in the assessment; rather, we consider the sensitivity of each waterbird species to disturbance and their contribution to the diversity and abundance of the assemblage feature. For example we treat with more caution species:

- Thought to be particularly sensitive to disturbance, such as redshank, curlew, whimbrel and wigeon;
- Thought to adapt more readily to nearby recreational activity, such as ringed plover;
- Highlighted as of particular conservation concern nationally such as curlew and whimbrel;
- Which tend to feed closer to the shoreline, such as redshank.

D3.1.18 To gauge risks at each location, we assess current recreational activity on foot and predict change as a result of our proposals. In this we drew on the knowledge and experience of local authority officers managing existing public footpaths at the coast, supplemented by our own observations over the past five years of fieldwork in preparing the access proposals.

D3.1.19 As a rule of thumb, we consider any recreation activity on foot by people or dogs at 200 metres or less of roosting or feeding birds to be a potential cause of visual disturbance. This corresponds to the distance at which the more sensitive species are likely to respond to the activity by taking flight. We go on to consider location specific factors. Where there is existing use by the public, local knowledge of recreational activity and field observations of interactions with birds are sometimes used to inform the detailed design of the access proposals and our assessment of impacts. New sections of path have been designed to avoid this zone of influence altogether or, if that is not practicable or desirable for other reasons, they are screened in the most sensitive places so that users will not be visible to birds.

D3.1.20 The noise generated by informal recreation on foot is normally low key. People may on rare occasions make louder and more intrusive noises but this will be unusual in the places where waterbirds feed and roost. If birds are displaced by unusual noises, they will return to the site when the noises have subsided. For these reasons it is not considered a significant risk.

D3.1.21 Table 7 below summarises mitigation measures to reduce disturbance to waterbirds during path construction works.

Table 7: Establishment works - mitigation measures

Site design	Operator to design access routes, storage areas and site facilities to minimise disturbance impacts. Operator to conduct operations out of sight of roosting and feeding areas where possible.
Timing of works	Local authority to plan schedule with Natural England to limit disturbance risk. Natural England to specify a period of low sensitivity at each construction site, based on likely departure and arrival dates of waterbird species that use it. At all other times, operator to work within 200 metres of, and visible to, a roost site will stop during the 2 hours before and after high tide. Operator to limit construction activities to daylight hours at all times of year.
Method	Operator to use hand tools where practicable. Operator to avoid use of percussive machinery outside period of low sensitivity, or avoid use of machinery during the 2 hours before and after high tide.

Disturbance to bats

D3.1.22 Greater horseshoe bats roost in a few very specific locations within the area affected by the proposals. Our assessment draws on surveys of bat roost sites at Uphill Cliffs and Brean Down in 2003 [Ref. 55] and 2018 [Ref. 4].

D3.2 Design of the access proposal to address possible risks – at a local level

D3.2.1 In this part of the assessment we consider the coast between Aust and Brean Down as a series of shorter lengths of coast, corresponding to a coastal access report or reports where establishing the England Coast Path and associated coastal access rights might impact on Qualifying Features of a European site. Each length of coast is then considered in a separate subsection (3.2A, 3.2B etc). In each subsection we explain how the detailed design of our proposals in the relevant report or reports takes account of possible risks.

D3.2.2 The qualifying features occurring at each of these shorter lengths of coast are shown in table 8 below.

D3.2.3 For readers who wish to cross–refer between this assessment and the corresponding coastal access report in which access proposals are made, the relationship between the geographic units used in this assessment and the way the stretch is sub divided into reports is also shown.

Table 8. Summary of key locations

Location	Assessment subsection	Assessment Map(s)	Coastal Access Report	Waterbird assemblage	Shelduck	Gadwall	Teal	Shoveler	Ringed plover	Golden plover	Lapwing	Dunlin	Whimbrel	Redshank	Reefs	Atlantic salt meadows	Limestone grassland	Greater horseshoe bat
Severn Bridge to New Passage	D3.2 A	A1	1	✓✓		✓	✓	✓			✓	✓✓		✓✓		✓		
New Passage to New Pill Gout	D3.2 A	A2	2	✓✓			✓		✓			✓✓		✓✓	✓	✓		

Location	Assessment subsection	Assessment Map(s)	Coastal Access Report	Waterbird assemblage	Shelduck	Gadwall	Teal	Shoveler	Ringed plover	Golden plover	Lapwing	Dunlin	Whimbrel	Redshank	Reefs	Atlantic salt meadows	Limestone grassland	Greater horseshoe bat
New Pill Gout to Avon Bridge	D3.2 B	B1	3	✓✓	✓	✓✓						✓✓		✓✓	✓	✓		
Avon Bridge to Portishead Marina	D3.2 B	B2	4	✓✓	✓	✓	✓✓	✓	✓			✓✓		✓✓		✓		
Portishead Marina to Wain's Hill	D3.2 C	C	5	✓✓					✓			✓		✓	✓	✓		
Wain's Hill to St Thomas Head	D3.2 D	D1 &D2	6&7	✓✓	✓✓✓		✓		✓		✓✓	✓	✓✓	✓✓		✓		
St Thomas Head to Uphill Beach Carpark	D3.2E	E	7&8	✓✓	✓✓				✓			✓✓		✓✓	✓	✓		
Uphill Beach Carpark to Brean Down Fort	D3.2F	F	9&10	✓✓	✓✓		✓✓		✓	✓	✓✓	✓		✓✓		✓	✓	✓
				✓ feeding ✓ roosting ✓ juvenile crèche														

D3.2A Severn Bridge to New Pill Gout (see Maps A1 and A2)

I) Baseline situation

Existing recreational use

I.i. Map A1 shows the coast from Severn Bridge to New Passage. Map A2 shows the coast to the south, between New Passage and New Pill Gout.

I.ii. This area has a low public profile, although visit numbers are thought to have increased in the last five years [Ref. 22]. The local highway authority believes that the majority of visits are by local people, particularly dog walkers, bird watchers and anglers, who regularly return to the same place. It is in easy walking distance of residential areas at Severn Beach and nearby villages.

I.iii. Severn Beach is a former beach resort and there is a caravan site near the motorway bridge towards the top of map A2. The town is no longer marketed as a visitor destination but offers on road parking and visitor facilities including cafes. The waterfront is within walking distance of a large residential area and has bus and train links to Bristol and the surrounding area. As a result there is more recreational activity here than on adjacent parts of the site. Most visitors to Severn Beach come to walk the seawall and use sandy and shingle areas of the foreshore adjacent to the seawall as a beach at low tide.

I.iv. An existing long-distance walking route, the Severn Way, meets the coast at Old Passage (Map A1) and follows the sea wall past New Passage and Severn Beach (Map A2). Towards New Pill Gout it takes the shorter and more landward of two paths to New Pill Gout where it crosses the railway line. The Severn Way is promoted on the web and locally with signs and leaflets and attracts modest numbers of long-distance walkers. A counter at New Pill Gout recorded an average of 15 passes a day. The part between Severn Beach and New Passage also forms part of a series of waymarked heritage walks that were installed in the last decade.

I.v. There are several access points to the Severn Way, of which Old Passage, New Passage and Severn Beach are the most significant because there is informal car parking. As a result there are more visitors around Old Passage, New Passage and Severn Beach than the central part of Northwick Warth or New Pill Gout, both of which involve a longer walk from these main points of access.

I.vi. There is an area of intertidal rock and shingle beach at the Severn Bridge end, in the top right corner of map A1. The beach is well-known for fossils and attracts visitors from the wider region. There are interpretation panels there and at the old ferry point at Old Passage, which is of historical interest.

I.vii. Between Old Passage and the creek to the south (known as Cake Pill) there is a dense belt of reed which screens the road from the saltmarsh and flats beyond it. There are worn paths to the water's edge at Old Passage and Cake Pill. Anecdotal evidence suggests these pathways have developed through use by anglers, but other visitors occasionally use them because they are visible and established.

I.viii. Between Cake Pill and Chestle Pill (the creek at New Passage) there is an extensive uninterrupted belt of grazed saltmarsh of variable width (100 to 300 metres) known as Northwick Warth, between the flood embankment and the intertidal flats. This is a popular area for birdwatchers. Walkers generally stick to the embankment path here but sometimes allow their dogs to roam over the upper saltmarsh. They tend not allow their dogs to enter the pills at either end. There are usually anglers along the shoreline near Cake Pill over high tide when it is possible to fish safely.

I.ix. Visitors generally stick to the seawall path between New Passage and Severn Beach, but the parish council reports that people use a narrow belt of sand and shingle adjacent to the seawall as a beach. The rest of the foreshore is separated from this 'beach' area by rock pools and channels and is only accessible on foot at the lowest spring tides and at some risk.

I.x. Just south of the motorway bridge, there is a small beach area known as Shaft Rocks which is separated from the Severn Way by a belt of scrub. People sometimes choose to walk along the beach here and there is a gap in the scrub which people use to access the beach. We believe this is used mainly by holiday makers staying at the nearby caravan park. There is evidence of people fishing and lighting fires here. I.xi. At Severn Beach there are two slipways that people use to access the sandy part of the foreshore. Just to the south, there is a worn path leading back to the seawall which marks the end of the sandy beach area.

I.xii. Towards New Pill Gout on map A2 there is a well-established secondary path which leaves the Severn Way and follows the seaward edge of an area of higher ground to an outfall pipe. This forms a short circular walk with the main route which is popular with local people setting out from Severn Beach. Recreational activity is much lower beyond the outfall pipe.

Existing physical damage to sensitive habitats by access users

I.xiii. The location of sensitive habitats on this part of the estuary is shown on map G.

I.xiv. There are narrow but visible pathways of bare soil and trampled vegetation through the saltmarsh at Old Passage (c) and Cake Pill (d). These are mainly used by anglers as noted above.

I.xv. There is a pathway of trampled vegetation on the upper saltmarsh at Severn Beach shore (m). This is used mainly by local residents to reach a strip of sandy beach there.

I.xvi. There is an area of intertidal biogenic reef at the furthest extent of the intertidal rock under the Severn Crossing. There is no information available on its current condition, but we assume it is not affected by recreational activity because it is normally submerged and only accessible at considerable risk to the user.

Existing disturbance to feeding waterbirds by access users

I.xvii. The Wetland Birds low-tide survey indicates significant numbers of waterbirds feeding at the following locations:

- on the rocks and shingle below the Severn Bridge (map A1)
- on the mudflat and saltmarsh along Northwick Warth (map A1)
- On the intertidal areas between New Passage and New Pill Gout (map A2)

I.xviii. The lower saltmarsh and mudflat is generally greater than 200 metres from the embankment path and screened by low cliffs at the transition between upper and lower saltmarsh. Birds feeding on the lower saltmarsh and mud may be displaced by anglers arriving before high tide, but are only occasionally displaced by recreational activity at other times. Birds feeding on the upper saltmarsh between the pills are sometimes disturbed by walkers: for example they may stop feeding when walkers pass on the embankment or choose to feed in areas that are further from the path. They are not normally displaced unless people stray from the path or allow a dog (or dogs) to roam freely over the saltmarsh. However, on very high tides they may feed in close proximity to the path and are more likely to be displaced [Ref. 22].

I.xix. Birds also feed and on the rocks and shingle below the Severn Bridge. They have been observed to stop feeding temporarily when people are fossil-hunting on the nearby shingle beach, or to walk or make short flights to avoid close proximity to people and/or their dogs.

I.xx. Between New Passage and New Pill Gout there are extensive areas of feeding habitat more than 200 metres from the seawall and beach. Waders have been observed feeding on the upper foreshore, especially on rising tides, sometimes in close proximity to walkers. If displaced, they have been observed to walk or make short flights to resume feeding at a slightly more distant location. At Chestle Pill, waterbirds are sometimes disturbed by people walking along the path from (i) to (j), but they are out of sight for the most part.

Existing disturbance to roosting waterbirds by access users

I.xxi. Woodward [Ref. 58] highlights the following locations marked on maps A1 and A2 as important high tide roosts:

- Cake Pill (roost 2A on map A1)
- Northwick Warth (roost 2B on map A1), in the vicinity of a brackish pool approximately midway between Cake Pill and Chestle Pill
- Chestle Pill (roost 2C on map A1),
- Pilning wetland (roost 2D on map A1), a freshwater area landward of the flood bank at Chestle Pill.
- The beach at Shaft Rocks (2E on map A2)
- Severn Beach shore (2F on map A2)
- Saltmarsh around New Pill Gout (2G on map A2).

I.xxii. In addition we treat the wetland known as Orchard Pools (map A2) as functionally linked to the Severn Estuary SPA and Ramsar and significant in its known role as supporting habitat for non-breeding waterbirds.

I.xxiii. There is regular disturbance at high tide from anglers on the shoreline between Cake Pill and Chestle Pill including Northwick Warth. Roosting birds are not normally disturbed by people walking along the existing embankment path except on very high tides, when birds are forced into closer proximity to the path. They have been observed to leave a roost when people stray off the path at (e) or (j), or when dogs are allowed to run freely over the saltmarsh. The Northwick Warth roost (2B) is more vulnerable to disturbance than the other roosts because it is closer to the path; however, it receives fewer visits because it is a longer walk from the main access points.

I.xxiv. Waterbirds tend to move to other nearby roosts when displaced from 2A, 2B or 2C, including Pilning Wetland (2D) where they are in general less vulnerable to disturbance [Ref. 58, p.33]. The proximity of other roosts and their relatively undisturbed character limits the energy cost of displacement from roosts 2A, 2B and 2C.

I.xxv. Waterbirds roosting at Severn Beach shore (2F) are not normally disturbed by people walking along the seawall but are frequently disturbed by people on the sand and shingle beach area between the seawall and the roost [Ref. 58, p.35]. On spring tides birds are forced into closer proximity to the beach area and are likely to be displaced by anyone using it. This happens more frequently since the nearby housing development was completed [Ref. 22].

I.xxvi. The roost at Shaft Rocks (2E) is less vulnerable to disturbance, because it is screened from the sea wall path by scrub. Birds may be displaced by people or dogs present on the beach seaward of the scrub at high tide.

I.xxvii. The New Pill Gout roost (2G) is on the saltmarsh around the pill. The roost is further from the main access point at Severn Beach, beyond the outfall pipe at (o) that marks the end of the popular circular walk from Severn Beach. Walkers and their dogs generally keep

to the existing paths which are screened from the roost area by vegetation and landform and disturbance is therefore infrequent. The roost may be an important refuge for waterbirds displaced from Severn Beach.

I.xxviii. The nearby wetlands at Orchard Pools are occasionally disturbed by trespassers but there are signs to discourage this. They may act as a refuge to ducks displaced from 2E or 2F.

II) Summary of the access proposal

II.i. There will be a new waymarked path along the cliff top from (a) to (b) on map A1. There will be minor works all along this part of the route to facilitate new access between fields and balance new recreational use with existing land uses.

II.ii. From Old Passage (b) to New Pill Gout (p) it will follow the existing Severn Way except:

- at Cake Pill, (d) to (e), where it will follow an established short-cut across the sluice that is slightly more direct than the existing public footpath; and
- south of Severn Beach, (n) to (o), where it follows another existing walked route seaward of the Severn Way.

II.iii. There will be new waymarks between (b) and (p) to help people follow the coast path and minor improvements to existing path infrastructure such as gates and stiles to make the route accessible to more people.

II.iv. Land seaward of the coast path will be coastal margin. No new access rights will be created to the intertidal flats and lower saltmarsh on the grounds that they are unsuitable for access, with the exception of a narrow belt of sand and shingle between New Passage and Severn Beach that has been used for recreation since the 1920s when Severn Beach was a resort.

II.v. Areas around roosts 2A, 2B, 2C and 2G will be promoted as refuges for waterbirds as indicated on maps A1 and A2. Notices will be installed at access points to the three refuge areas - (d) and (e), (f) and (j), (o) and (p) - to explain the sensitivity and ask people to remain on the path in these areas and keep their dogs on the path with them, using a lead if necessary.

II.vi. Smaller notices will be placed at (g), (h) and (i) to serve as reminders to people walking along the route or arriving at the coast from linking footpaths.

II.vii. Notices will also be placed in the vicinity of the roosts at Shaft Rocks and Severn Beach shore at (k), (l) and (m) on map A2. These will alert people to the likely presence of sensitive

waterbirds and ask them to take special care around high tide to keep their distance from waterbirds and keep their dogs with them, using a lead if necessary.

Predicted change in use of the site for recreation

II.viii. There will be an increase in use of the proposed route arising from its association with the England Coast Path. The increase would be small because:

- it is already a promoted long-distance route;
- there are very few visitor facilities south of the Severn Bridge services,
- the traffic noise and industry in the vicinity of Avonmouth and the motorway crossings is likely to deter some potential visitors.

II.ix. Most new visits will be from people who do not live locally because the area is already well-known to local people. Most new visitors would be day walkers and long distance walkers who are less likely to be attracted away from the path or to allow their dogs to roam freely over the foreshore. We do not expect an increase in angling.

II.x. A small proportion of new visitors could choose to explore existing pathways towards the water's edge at Cake Pill and Old Passage but notices will discourage them. There may be a small increase in visits to the beaches at Severn Bridge (map A1) and Severn Beach (map A2).

II.xi. We do not expect any appreciable increase in recreational use of the intertidal flats or lower saltmarsh, because they are not generally safe or convenient to walk on. The banks of the three pills are steep-sided and dangerous. There would be no new access rights to these parts of the coastal margin.

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

Table 9: Possible risk - physical damage to sensitive habitats (Severn Bridge to New Pill Gout)

The location of sensitive habitats on this part of the estuary is shown on map G. The path avoids sensitive habitats and there is very limited existing damage to them. The only concern is whether people newly attracted by the waymarked route will leave it in sufficient numbers to cause significant new damage.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Saltmarsh from (b) to (j) on map A1	Waymarked route from (b) to (j). New access rights to upper saltmarsh seaward of the route but access rights to intertidal mud and lower saltmarsh excluded. Saltmarsh to be promoted as waterbird refuges, as indicated on map A1. New posts inserted into the saltmarsh at (d), (e), (f) and (j) to hold notices.	The path is not on the saltmarsh but adjacent to it, except from (d) to (e) where it follows a well-used shortcut. Existing users rarely leave the path except along the informal path at (e). The refuge and notice will discourage this.	Levels and patterns of recreational use will not change significantly. No increase in wear along the anglers' path from (c). 0.2 square metre loss of saltmarsh habitat where posts installed
Saltmarsh between (m) and (p) on A2	Waymarked route from (j) to (p). New access rights to upper saltmarsh seaward of the route. Access rights to intertidal mud and lower saltmarsh excluded to the extent shown.	The path is not on the saltmarsh but adjacent to it. Existing users rarely leave the path except along the informal path at (m). This serves principally as a beach access route from the	Levels and patterns of recreational use will not change significantly. No increase in wear along the informal path at (m).

	Saltmarsh from (o) to (p) to be promoted as a waterbird refuge, as indicated on map A2.	nearby housing - visitors attracted by the coast path are unlikely to use it.	
Biogenic *Sabellaria* reef below the Severn Crossing at New Passage	Access rights to intertidal mud and lower saltmarsh excluded to the extent shown.	Access to the reef is dangerous and only possible at very low tides. No new rights will be created there.	No appreciable risk.

Table 10: Possible risk - Increased disturbance to feeding waterbirds (Severn Bridge to New Pill Gout)

There are extensive feeding areas more than 200 metres from the path. The main concern is whether people newly attracted by the waymarked route will leave it in sufficient numbers to increase disturbance significantly, or allow their dogs to do so.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Rocks and shingle around the Severn Bridge: sector BV622 Species cited as contributing to the assemblage do not occur in significant numbers. Other species that are part of the assemblage: Turnstone *Arenaria interpres*	Way-marked route between (a) and (c). New access rights to land seaward of the route. Access rights to lower saltmarsh and intertidal mud excluded as shown on map A1.	Path users are on the cliff top and not visible to feeding birds. Most new users will follow the path without visiting the beach. The main recreational activity on the foreshore at Severn Bridge is exploration of the upper foreshore by fossil hunters. The use will be secured by the access proposals and is expected to continue and possibly increase. Feeding turnstone have been observed to tolerate fossil hunters, but may fly short distances or choose to feed further from them.	There will be a small increase in frequency of disturbance from people leaving the path to look for fossils, but not normally resulting in birds moving off site. This will cause only temporary effects.
Saltmarsh between Cake Pill and Chestle Pill: sector BV622	Way-marked route between (c) and (j).	The path passes within 200 metres of the birds feeding on the saltmarsh.	There will be a small increase in frequency of disturbance arising

Species cited as contributing to the assemblage: wigeon.	New access rights to upper saltmarsh seaward of the route. Access rights to lower saltmarsh and intertidal mud excluded as shown on map A1. Promote two areas of the saltmarsh and creek as refuges for waterbirds, as indicated in green on map A1. Notices at (d), (e), (f) and (j) to explain this and ask people to remain on the path in these areas keep their dogs on the path with them, using a lead if necessary. Smaller notices (g), (h) and (i) to serve as reminders.	Path users are visible to birds from the saltmarsh, but much less so from the creeks. Birds are sometimes observed to stop feeding temporarily when people walk past. Feeding birds often fly off if dogs are allowed to roam freely nearby. Notices will discourage this.	from new path users, but not normally resulting in birds moving off site. Many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term, reduction in disturbance: some existing users will modify behaviour in response to the new information.
Mudflat and lower saltmarsh between Severn Bridge and Chestle Pill: sector BV622 Qualifying features: dunlin, redshank Other species cited as contributing to the assemblage: curlew, grey plover, wigeon. Other species that are part of the assemblage: knot, lapwing, black-tailed godwit.		The path is more than 200 metres from these feeding areas, except at (c) and from (i) to (j) where it passes close to the creeks. Birds are often hidden in the creeks and therefore remain undisturbed by passing walkers. They may fly off if startled by someone approaching the creek edge. Notices will discourage this.	
Foreshore between New Passage and Severn Beach: sector BV623 Species cited as contributing to the assemblage: wigeon	Way-marked route between (j) and (m). New access rights to upper foreshore seaward of the route.	Birds generally feed further than 200 metres from the path, but move closer as the tide comes in. Feeding birds are screened from path users around Shaft Rocks by vegetation.	No appreciable increase in disturbance. Most new users will not cause disturbance; some will read the

Other species that are part of the assemblage: turnstone	Access rights to lower saltmarsh and intertidal mud excluded as shown on map A2. Notices at (k) (l) and (m) alerting path users to sensitivity and asking them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary.	Elsewhere, path users are visible to feeding birds but do not appear to stop them feeding. Existing users often use the upper foreshore as a beach. Feeding birds have been observed to tolerate these activities but move away if dogs are allowed to roam freely there. Notices will discourage this.	information and consciously adopt the required behaviour. Long-term, reduction in disturbance: some existing users will modify behaviour in response to the new information.
Foreshore between Severn Beach and New Pill Gout: sector BV624 Qualifying features: dunlin, redshank Other species cited as contributing to the assemblage: curlew Other species that are part of the assemblage: turnstone	Way-marked route between (m) and (p). New access rights to upper foreshore seaward of the route. Access rights to lower saltmarsh and intertidal mud excluded as shown on map A2. Promote area around New Pill Gout as a waterbird refuge as indicated on map A2. Notices at (o) and (p) to explain this and ask people not to leave the path here and keep their dogs with them, using a lead if necessary.	Birds generally feed further than 200 metres from the path, but move closer as the tide comes in. Feeding birds are screened from path users from (n) to (p) by vegetation, except at (o). Where path users are visible to feeding birds, birds have been observed to continue feeding. Feeding birds may move away if dogs are allowed to roam freely on the foreshore, as happens around (m). Notices will discourage this.	No appreciable increase in disturbance. Most new users will not cause disturbance; some will read the information and consciously adopt the required behaviour. Long-term, reduction in disturbance: some existing users will modify behaviour in response to the new information.

Table 11: Possible risk - Increased disturbance to roosting waterbirds (Severn Bridge to New Pill Gout)

There is existing disturbance to some of these roosts, but the effects are temporary. The roosts function as a network: when birds are displaced from one roost they move to another nearby roost. Birds are not normally displaced by path users. The main risk is from dogs roaming freely over the foreshore, which often causes roosting birds to move.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Roost 2A: Cake Pill Qualifying features: redshank, teal Other species cited as contributing to the assemblage: wigeon	Way-marked route between (c) and (j). New access rights to upper saltmarsh seaward of the route. Access rights to lower saltmarsh and intertidal mud excluded as shown on map A1. Promote two areas of the saltmarsh and creek as refuges for waterbirds, as indicated in green on map A1. Notices at (d), (e), (f) and (j) to explain this and ask people to remain on the path in these areas keep their dogs on the path with them, using a lead if necessary.	Path users from (d) to e) are visible to birds at 2A but more than 200 metres from them. Disturbance occurs when people leave the waymarked route at (d) to follow the informal anglers' path towards the roost, or allow their dogs to roam freely. Notices will encourage people not to do this.	Many new users will pass by without causing disturbance; some will read the information and consciously adopt the required behaviour. Some existing users will modify their behaviour in response to the new information. At the highest tides, path users already disturb roosting bids. This will happen more frequently because path use will increase. This effect is not significant in our view: birds may move to other nearby roosts temporarily, but will continue
Roost 2B: Northwick Warth Qualifying features: shelduck, redshank, dunlin, teal, lapwing Other species cited as contributing to the waterbird assemblage: curlew, wigeon		Path users pass within 200 metres of roosts and are visible to roosting birds between (f) and (j) Roosting birds have been observed to tolerate people walking past, but are likely to leave the roost if dogs	
Roost 2C: Chestle Pill			

Qualifying features: redshank, teal Other species cited as contributing to the assemblage: wigeon Other species that are part of the assemblage: turnstone.	Smaller notices (g), (h) and (i) to serve as reminders.	are allowed to roam freely. Notices will discourage this. On the highest tides roosting birds are forced into closer proximity to the path and likely to move off the roost if people walk past. They are likely to move to 2D, which is not tidal and is separated from the path by a fence and ditch. Birds roosting on 2D are not disturbed to any significant extent by recreational activity nearby.	to use all the available roosts in the long-term. The proximity of other nearby roosts at relatively undisturbed locations, will limit the energy cost to birds of disturbance at these locations.
Roost 2D – Pilning wetland Qualifying features: redshank, dunlin, gadwall, teal, shoveler, lapwing Other species cited as contributing to the assemblage: curlew, tufted duck Other species that are part of the assemblage: little egret, mallard.			
Roost 2E: Shaft Rocks Qualifying features: ringed plover (passage), dunlin (passage only) Other species that are part of the assemblage: turnstone	Way-marked route between (j) and (m). New access rights to upper foreshore seaward of the route. Access rights to lower saltmarsh and intertidal mud excluded as shown on map A2. Notices at (k) (l) and (m) alerting path users to sensitivity and asking	Path is within 200 metres of roosts 2E 2F and 2G but path users are only visible to birds roosting at 2F. Disturbance at 2G is unusual: people tend to stick to the path in this area and notice will re-enforce this. Disturbance at 2E sometimes happens when people are walking	No appreciable increase in disturbance: most new users will pass by along the path without causing significant disturbance; some will read the information and consciously adopt the required behaviour.
Roost 2F: Severn Beach shore Qualifying features: ringed plover, redshank, dunlin			

Roost 2G: New Pill Qualifying features: redshank, dunlin, shelduck Other species cited as contributing to the assemblage: curlew. Other species that are part of the assemblage: turnstone, mallard. *Orchard Pools* Likely to be used by ducks for roosting and feeding including: Qualifying features: gadwall, teal Other species cited as contributing to the assemblage: tufted duck	them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary. Promote area around 2G as a waterbird refuge as indicated on map A2. Notices at (o) and (p) to explain this and ask people not to leave the path here and keep their dogs with them, using a lead if necessary. There is no existing public access to Orchard Pools and none is proposed.	along the beach, in particular when dogs are allowed to roam freely at high tide. Notices will encourage people to avoid this. Birds roosting at 2F tolerate people walking past them on the path. They usually leave the roost when people walk along the beach, in particular when dogs are allowed to roam freely at high tide. Notices will encourage people to avoid this. Orchard Pools is separated from the proposed route by the railway line and A403 and there is no reason to suppose that trail users would be attracted to it.	Long-term reduction: some existing users will modify their behaviour in response to the new information. Roost 2G and Orchard Pools will continue to offer relatively undisturbed and nearby refuges for birds displaced from 2E or 2F.

D3.2B New Pill Gout to Portishead Marina (Maps B1 and B2)

IV) Baseline situation

Existing recreational use

IV.i. There is very limited access and very little recreational activity on this part of the site, which is dominated by Avonmouth Docks (map B1) and Royal Portbury Docks (map B2).

IV.ii. At the top of map B1, an existing long-distance walking route called the Severn Way crosses the railway line at New Pill Gout and runs parallel with it as far as Chittening Industrial Estate. There it turns away from the coast to follow an inland route. It is used mainly by walking enthusiasts, in small numbers.

IV.iii. Seaward of the railway line there is a wide belt of saltmarsh known as Chittening Warth and extensive mudflats and gravel beds. Access to Chittening Warth is difficult. To the north, it is necessary to ford New Pill, which is treacherous, or use the railway service bridge, which is illegal. There are several places where it is possible to get under the railway line from the Severn Way with effort and some risk: there is evidence that they are used, probably by local anglers, but the port and railway authorities discourage it and have taken measures to block the access points in recent years. A few local dog walkers drive across the port access bridge and park outside the fuel storage depot to walk along the embankment to Stupp Pill. The bridge is not a highway and there is no general permission to use it. There is no recreational activity below mean high water because the foreshore is too dangerous to walk on.

IV.iv. The coast south of Chittening Warth on map B1 as far as the Avon Bridge is in operational use by the port and out of bounds. There is street parking at Avonmouth, buses and a rail link to Bristol from Avonmouth and St Andrews Road stations.

IV.v. South of the Avon Bridge on map B2, the coast is dominated by Royal Portbury Docks and has little recreational activity except at Portbury Wharf, between the docks and the town of Portishead.

IV.vi. There is a common called the Landuns on the west bank of the river Avon (shown on map B2 as existing access land). This is visited by low numbers of local people, mostly dog walkers, from nearby settlements.

IV.vii. Access along the coast to the north of the Landuns is prohibited by the port authority for security reasons. There is pedestrian cycleway inland of the docks linking Avon Bridge and nearby settlements to Portishead. It is possible to walk from Avon Bridge to Portishead by following the cycle route as far as Sheepway and then taking one of two walking routes from there to the coast at Portbury Wharf. These are not currently promoted as walking

routes but are used to reach the coast by local people from Sheepway and Portbury, a nearby village to the south of the M5.

IV.viii. Portbury Wharf is a local amenity in its own right, but also draws local people visiting the Ashlands Nature Reserve to the south of the seawall. The reserve has an established public profile in Portishead and the surrounding villages. At Portbury Wharf there is a path along the old seawall that gives access to an area of saltmarsh between Portishead Marina and Chapel Pill, a creek at the western end of the docks. The western half of the sea wall forms a popular circular walk from Portishead through the nature reserve to the south.

IV.ix. The Chapel Pill end of the Portbury sea wall is much quieter; onward access to Sheepway can be difficult in summer when vegetation grows over the path. There is a registered common called St George's at this end of the seawall: the majority of it is now part of the secure operational area of the port but there are access rights to the remnants around Chapel Pill. There is no evidence of any recreational activity in this area, other than the seawall path itself.

Existing physical damage to sensitive habitats by access users

IV.x. The location of sensitive habitats on this part of the estuary is shown on map G.

IV.xi. The location of sensitive habitats on this part of the estuary is shown on map G.

IV.xii. At New Pill Gout (map B1) there is a large area of biogenic *Sabellaria* reef at the outermost limits of the intertidal zone, below mean low water. There is no data on its current condition. It is remote and dangerous to reach on foot.

IV.xiii. On Chittening Warth (map B1) there is a wide belt of saltmarsh between between New Pill Gout and the fuel storage depot. Between Stupp Pill and the fuel storage depot there is a track along the flood embankment which people walk along. There is no significant wear on the saltmarsh itself.

IV.xiv. At the Landuns (map B2) on the west bank of the Avon there is a line of bare ground through the saltmarsh vegetation which broadly corresponds to the public footpath shown on map B2.

IV.xv. At Portbury Wharf (map B2) there is a worn path in the middle of the saltmarsh from the seawall to the waters edge, but no other visible damage.

Existing disturbance to non-breeding waterbirds (feeding)

IV.xvi. Birds feed on the foreshore throughout this part of the site. There is no evidence of any existing disturbance from recreational activity except at Portbury Wharf where there is a large expanse of intertidal flat used by feeding waterbirds. Birds are distracted from feeding, and occasionally displaced, when incoming tides push them into closer proximity

with the existing path. They are also occasionally displaced by people following the worn pathway across the saltmarsh to the waters edge, and when people allow their dogs to roam freely on the saltmarsh.

IV.xvii. Access to wetland areas within the Ashlands Nature Reserve is tightly controlled with screens and managed viewing areas to avoid disturbance. It is screened to some extent from the existing path along Portbury Wharf by trees along its northern edge and there is a deep ditch between the path and the wetland areas.

Existing disturbance to roosting waterbirds from access users

IV.xviii. The following roosts were identified by Woodward et al. [Ref. 58] as important:

- New Pill Gout (see section D3.2A and map A2 for further details);
- Stupp Pill (roost 2H on map B1), on Chittening Warth
- Area A9 (roost 3B on map B1), at the north end of the fuel storage depot
- Hole's Mouth (roost 3A on map B1), seaward of the fuel storage depot
- East Pier (roost 6B on map B2) in Royal Portbury Docks
- Chapel Pill (roost 6A on map B2) at the east end of Portbury Wharf
- River Avon Bank (roost 3G on map B2) on the northern bank of the River Avon

IV.xix. In addition we treat the Ashlands Nature Reserve on map B2 as functionally linked to the Severn Estuary SPA and Ramsar and significant as supporting habitat for non-breeding waterbirds.

IV.xx. There is no evidence that waterbirds at these locations are disturbed by existing recreational activity, but we infer that there must be some existing disturbance at Chittening Warth from anglers on the shoreline at high tide and at very high tides when birds are forced to roost in closer proximity to the embankment path leading to Stupp Pill. It is very unlikely that there is any disturbance caused by people walking along the Severn Way because it is screened from the roosts by the railway embankment and adjacent vegetation.

IV.xxi. The west bank of the Avon is not noted for its waterbird interest and there is no evidence of disturbance from recreational activity there.

IV.xxii. The high tide roost at Chapel Pill is 150 to 200 metres from nearest part of the existing path along the seawall. Birds roosting there are partly screened from view by the banks of the pill and there is no evidence that they are disturbed by walkers.

V) Summary of the access proposal

V.i. The coast path will follow existing walked routes from New Pill Gout (map B1) to Portishead Marina (map B2), except for a short section of new path through fields between Sheepway and Portbury Wharf on map B2.

V.ii. There will be new waymarks along the existing paths to help walkers follow the coast path and minor improvements to existing path infrastructure such as gates and stiles to make the route accessible to more people. Between Sheepway and Portbury Wharf there will be minor works to facilitate the new access and balance new recreational use with existing land uses.

V.iii. The new path section will meet Portbury Wharf at the sewage works, further from roost 6A than the existing path. Guide fencing with sheep netting will be installed at the junction to discourage people from approaching the roost more closely or letting their dogs do so.

V.iv. Chapel Pill (roost 6A) will be promoted as a refuge for waterbirds. There will be notices at (e) and (c) to explain the sensitivities. The notices will ask people to stay on the path in this area and keep their dogs with them, using a lead if necessary.

V.v. Chittening Warth will be promoted as a refuge for waterbirds. There will be a notices at (a) to explain the sensitivities.

V.vi. Land seaward of the coast path would be coastal margin:

- the industrial and residential land at Avonmouth and Portbury would be excepted from new access rights.
- no new access rights would be created to the intertidal flats and lower saltmarsh on the grounds that they are unsuitable for access.
- the belt of saltmarsh at Chittening Warth (Map B1) would be subject to access rights, but there would be no safe means to reach it on foot.
- the belt of saltmarsh at Portbury Wharf (Map B2) would be subject to new access rights.
- the existing access rights at the St George's and Landuns commons on map B2 would remain unchanged.

Predicted change in use of the site for recreation

V.vii. There will be an increase in use of the proposed route arising from its association with the England Coast Path and the ease of access for long-distance walkers by rail from Avonmouth.

V.viii. Most new visits will be from people who do not live locally because the area is already well-known to local people. Most new visitors would be day walkers and long distance walkers who are less likely to be attracted away from the path or to allow their dogs to roam freely over the foreshore.

V.ix. We expect the increase to be small because there are limited visitor facilities at Avonmouth and very limited access to the immediate coast.

V.x. We expect no appreciable increase in use of the coastal margin: there would be no new access rights to operational areas of the port and the coastal land at Chittening Warth will remain difficult and dangerous to reach on foot.

V.xi. The main attraction for walkers in this area will remain the circular walk from Portishead through the Ashlands nature reserve. We would expect some additional use of the saltmarsh at Portbury Wharf, largely confined to the existing path from (d) to the waters edge because of the wet and difficult terrain to either side.

V.xii. The Chapel Pill end of the saltmarsh is likely to receive significantly fewer visitors, as currently, because it does not form part of the existing circular walk. There is potential for more people from Sheepway and Portbury to start using it as part of a local circular walk to and from the coast but such existing use is low-key, suggesting that they are more likely to drive to Portishead or Ashlands before beginning a walk.

V.xiii. We expect no appreciable increase in recreational use of the existing St George's and the Landuns commons: the proximity to the motorway and the docks will deter new visitors from the Landuns; the terrain ay St George's (Chapel Pill) is wet and difficult to walk on.

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

Table 12: Possible risk - physical damage to sensitive habitats (New Pill Gout to Portishead Marina)

The location of sensitive habitats on this part of the estuary is shown on map G. The route itself is not aligned on any areas of sensitive habitat. Below we consider whether additional visitors following the England Coast Path will be attracted to leave it, so increasing the risk of damage in sensitive areas.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Saltmarsh at Chittening Warth Biogenic *Sabellaria* reef seaward of New Pill Gout	Waymarked route on map B1 New access rights to upper saltmarsh. Access rights to lower saltmarsh and intertidal mud excluded.	The saltmarsh is separated from the path by the railway line, so will remain difficult to reach safely on foot. The reef is at the very edge of the interidal area. It will remain difficult and dangerous to reach on foot.	No appreciable risk.
Saltmarsh at the Landuns Saltmarsh at Portbury Wharf	Waymarked route on map B2 New access rights to upper saltmarsh at Portbury Wharf. Access rights to lower saltmarsh and intertidal mud excluded. New posts inserted into the saltmarsh beside the seawall at (c) and (e), to hold notices.	The waymarked route is not on the saltmarsh. There will be no change in levels and patterns of use at the Landuns. Minimal increase in use at Portbury Wharf, confined to the existing path from (e) to the water's edge.	No appreciable increase in wear 0.2 square metre loss of saltmarsh habitat where posts installed

Table 13: Possible risk - increased disturbance to feeding waterbirds (New Pill Gout to Portishead Marina)

Most feeding areas in this part of the estuary are remote and difficult to access. The main concern is around Portbury Wharf where the foreshore is accessible and close to parking and visitors facilities at Portishead.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Foreshore between New Pill Gout and fuel storage depot: sectors BV624/625 Qualifying features: dunlin, redshank Other species cited as contributing to the assemblage: curlew Other species that are part of the assemblage: turnstone	Waymarked route on map B1 Access rights to lower saltmarsh and intertidal mud excluded. New access rights to upper saltmarsh. Promote Chittening Warth as a refuge for waterbirds as indicated on map B1. Notice at (a) to explain this.	The waymarked route is separated from feeding areas by the railway line and the port facilities. This means it is difficult to reach the Chittening Warth safely on foot from the waymarked path. The remaining foreshore can only be reached via secure operational areas of the port.	No appreciable risk
Foreshore between fuel storage depot and Avonmouth: sectors BV626/796 Qualifying features: dunlin, redshank, gadwall Other species that are part of the assemblage: turnstone			

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Royal Portbury Dock: sector BV629 Species that are part of the assemblage: snipe *Portbury Wharf: sector BV630* Qualifying features: redshank, gadwall, teal Other species that are part of the assemblage: snipe	Waymarked route on map B2 Access rights to lower saltmarsh and intertidal mud excluded. New access rights to upper saltmarsh. Promote Chapel Pill as a refuge for waterbirds as indicated on map B2. Notices at (c) and (e) to explain the sensitivity and ask people to stay on the waymarked path when the tide comes in and keep their dogs with them, using leads if necessary.	Waymarked route is more than 200 metres from feeding areas, except from (e) to (f). People may approach more closely via the path from (d) to the edge of the saltmarsh. Even there, feeding birds will normally be further than 200 metres from them. This is a concern on rising tides when feeding birds are forced closer to the shore. Notices will encourage people to avoid disturbance.	No appreciable change to current levels of disturbance. Most new users will pass along the waymarked route without causing disturbance. Some will read the information and consciously adopt the required behaviour. Long-term, reduction in disturbance: some existing users will modify behaviour in response to the new information.

Table 14: Possible risk - increased disturbance to roosting waterbirds (New Pill Gout to Portishead Marina)

There is very little recreational activity close to waterbird roosts on this part of the estuary because they are remote and difficult to access. Below we consider whether this is likely to change as a result of the access proposals.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Roost 2H: Stupp Pill Qualifying features: dunlin, gadwall	Waymarked route on map B1 Access rights to lower saltmarsh and intertidal mud excluded. New access rights to upper saltmarsh. Promote Chittening Warth as a refuge for waterbirds as indicated on map B1. Notice at (a) to explain this.	The route is 200 metres from the nearest of these roosts (2H) at its closest point. The path is screened from birds by the railway embankment and vegetation. It is difficult to cross the railway line safely on foot. Roosts 3A and 3G can only be reached via secure operational areas of the port.	No appreciable risk.
Roost 3B: Area A9 Qualifying features: dunlin			
Roost 3A: Hole's Mouth Qualifying features: redshank, gadwall Other species that are part of the assemblage: turnstone, mallard			
Roost 3G: River Avon Bank (area A1a) Species that are part of the assemblage: mallard			
Roost 6B: East Pier	Promote Chapel Pill as a refuge for waterbirds, as indicated in green on	Roost 6B lies within the secure operational area of the port and is	Not applicable

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Qualifying features: ringed plover, dunlin	map D, corresponding to the area around roost 6A. Adjust the existing path so that it turns inland at the sewage works, further from roost 6A. Install guide fencing with sheep netting at the eastern extent of the new path to discourage people from approaching the roost more closely or letting their dogs do so. Notices at (e) and (c) asking people to (a) remain on the path in this area (b) keep their dogs on the path with them, using a lead if necessary.	more than 200 metres from the path. Any closer approach is made hazardous by the intervening saltmarsh.	
Roost 6A: Chapel Pill Qualifying features: dunlin, redshank, shelduck, teal Other species cited as contributing to the assemblage: wigeon		There is no recorded disturbance to roost 6A. The existing path is about 200 metres from the roost and walkers are partially screened by the banks of the pill and surrounding vegetation. It will be moved slightly further away. The intervening saltmarsh is difficult to walk on which discourages people from approaching more closely. Notices and guide fencing will reinforce this.	Disturbance less likely as a result of the access proposals.
Ashlands Nature Reserve Qualifying features: gadwall, shoveler Other species cited as contributing to the assemblage: wigeon, tufted duck		Ashlands is separated from the path by a deep ditch and partially screened by vegetation. Waterbirds may be more alert when people walk along the bank but do not show any other response.	No appreciable risk.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Other species that are part of the assemblage: mallard, snipe		Existing levels and patterns of access around the reserve are unlikely to change.	

D3.2C Portishead Marina to Wains Hill

VII) Baseline situation

Existing recreational use

VII.i. Portishead Marina is in the top right corner of map C. Wains Hill is approximately 4 miles (6 kilometres) south west of Culver Cliff, in the bottom left corner of the map. Most of the sensitive features on this part of the coast are in the area shown on the map.

VII.ii. Portishead (at the east end of this part of the site) and Clevedon (at the west end) are established seaside towns with a range of recreational activities focussed on the coast, particularly in the summer. Part of a locally promoted walking route, the Gordano Round, runs along the cliffs between them, and there are various access points to the rocky coves below them. There is a group of caravan and park home sites at Walton Bay near the village of Farley, about half way between Portishead and Clevedon, towards the bottom left corner of the map.

VII.iii. In Portishead the foreshore is accessible via steps near the marina. This is used by low numbers of local anglers and dog walkers. There is an esplanade around Woodhill and Kilkenny Bay and signs along the upper foreshore warning of the soft mud below it. Recreational activity is focussed on the park behind it where there are visitor attractions and facilities, but there is low level use along the shingle and rocks on the upper foreshore by local dog walkers and anglers.

VII.iv. The local access authority believes that the cliff top path to the south west is used mainly by local dog walkers and day visitors following the Gordano Round, from car parks in Portishead and Clevedon.

VII.v. Clevedon, like Portishead, has a busy esplanade with a park, visitor attractions and car parking to landward, but it is a more recognisable as a coastal resort with a pier, a marine swimming lake and a rocky foreshore/beach. Wains Hill is a rocky promontory to the west of Clevedon with a well-known promoted walking route called Poet's Walk.

Existing physical damage to sensitive habitats by access users

VII.vi. The location of sensitive habitats on this part of the estuary is shown on map H.

VII.vii. There is saltmarsh mixed with shingle along the upper foreshore in Portishead between Battery Point and Sugar Loaf Beach. There is an informal path, partly surfaced, on the very edge of the saltmarsh where it meets the seawall, but no evidence of any damage seaward of it.

VII.viii. There is a narrow belt of biogenic Sabellaria reef along the rocky undercliff between Sugar Loaf beach and Charlcombe Bay, smaller patches further southwest at Ladye Bay on the edge of Clevedon, and a more extensive area on the shore below Wains Hill. These are around mean low water and to approach them it is necessary to clamber over seaweed covered rocks and shingle. There is no evidence that existing recreational activity on foot is causing appreciable damage to these reefs.

Existing disturbance to non-breeding waterbirds - feeding

VII.ix. Ringed plover feed in significant numbers on passage at Woodhill Bay on map C. There are no records of disturbance to waterbirds from existing recreational activity on the upper foreshore, but it is likely that feeding birds are sometimes distracted from feeding, or displaced, by dogs running freely on the foreshore.

VII.x. There is no significant waterbird interest along the coast between Woodhill Bay on map C and Wains Hill on map D1.

Existing disturbance to non-breeding waterbirds - roosting

VII.xi. Woodward et al. [Ref. 58] highlights the following location marked on map C as an important high tide roost:

- Woodhill Bay (roost 9A), on saltmarsh at the eastern end of the bay area.

VII.xii. There is no evidence of significant disturbance to this roost. People regularly walk on the esplanade or the shingle along the upper foreshore about 100 metres from the normal roost site; birds are not normally displaced by this activity. Birds sometimes move off the roost when dogs run freely over the foreshore towards them, and on the highest tides when birds are forced closer to the esplanade.

VIII) Summary of the access proposal

VIII.i. The proposed route for the coast path follows existing paths from Portishead Marina to Wain's Hill. The majority of these form part of the existing promoted routes known as the Gordano Round and Poet's Walk.

VIII.ii. There will be new waymarks along the existing paths to help walkers follow the coast path and significant improvements to existing path infrastructure, mainly to remedy existing problems with erosion.

VIII.iii. Land seaward of the coast path will be coastal margin, but land covered by buildings and the curtilage of buildings would be excepted from new access rights.

VIII.iv. No new access rights will be created to the intertidal flats at Portishead on the grounds that they are unsuitable for access – as indicated on map C. The saltmarsh there will be subject to new access rights

VIII.v. Small areas of land to the landward side of the path will also be newly subject to access rights along this part of the coast, as detailed on the maps in our coastal access report. These do not affect the European sites.

VIII.vi. Notices will be installed at two access points from the esplanade to the foreshore (b) and (c). These will alert people to the likely presence of sensitive waterbirds and ask them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary.

Predicted change in use of the site for recreation

VIII.vii. We expect an increase in use of the proposed route arising from its association with the England Coast Path. Most new visits will be walking tourists and day walkers attracted by the National Trail designation, because the route consists largely of existing promoted routes with an established profile among the regional walking community.

VIII.viii. We expect no significant overall change in recreational use of the land seaward of the path and in particular, no increase in sensitive areas discussed below. There may be a small increase in use of the foreshore at Clevedon and Portishead where there is advertised parking. Recreational activity at Woodhill Bay in Portishead is likely to remain confined mainly to the path along the upper foreshore in view of the advertised danger of soft mud. Any increase in visits to the smaller beaches between the two towns will be very restricted because of parking availability.

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

Table 15: Possible risk - physical damage to sensitive habitats (Portishead Marina to Wain's Hill)

The location of sensitive habitats on this part of the estuary is shown on map H. Of the areas identified, only the saltmarsh at Woodhill Bay is readily accessible on foot.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Saltmarsh at Woodhill/Kilkenny Bay	Waymarked route from (b) to (d). Access rights to upper saltmarsh. Access rights to lower saltmarsh and intertidal mud excluded. New posts inserted into the saltmarsh beside the seawall at (b) and (c)	The route is not on the saltmarsh. The waterfront at Woodhill Bay is already a popular destination with established patterns of access. Long-distance walkers are unlikely to leave the path and, if they do, tend to follow the informal path below the seawall.	No appreciable increase in wear. 0.2 square metres loss of saltmarsh habitat where posts installed
Biogenic *Sabellaria* reef: - between Woodhill Bay and Charlcombe Bay - at Ladye Bay - at Wains Hill	Waymarked route from Woodhill Bay to Wains Hill Access rights to seaward land. Access rights to intertidal mud excluded.	The route is above the foreshore. Reefs are only exposed on very low tides and they are difficult to reach on foot.	No appreciable risk

Table 16: Possible risk: increased disturbance to feeding waterbirds (Portishead Marina to Wain's Hill)

On this part of the estuary, there is only evidence of waterbirds feeding in significant numbers at Woodhill Bay.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Woodhill Bay/Kilkenny Bay - sector BV633 Qualifying features: ringed plover	Waymarked route from (a) to (d). Access rights to upper saltmarsh. Access rights to lower saltmarsh and intertidal mud excluded. Notices at (b) and (c) to alert people to the likely presence of sensitive waterbirds and ask them to keep their distance from waterbirds and keep their dogs with them, using a lead if necessary.	Path users will be more than 200 metres from most of the feeding habitat in the bay, but the upper foreshore will be subject to new access rights. Birds may feed here as the tide rises. When people walk by, they may stop feeding but are less likely to move. They may move if dogs are running freely on the adjacent saltmarsh. Notices will discourage this. Most new users will be on a planned walk and less likely to exercise their dogs here, but it cannot be ruled out completely.	No appreciable increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.

Table 17: Possible risk: increased disturbance to roosting waterbirds (Portishead Marina to Wain's Hill)

On this part of the estuary, there is only evidence of waterbirds roosting in significant numbers at Woodhill Bay.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Roost 9A: Woodhill Bay Qualifying features: redshank Other species that are part of the assemblage: turnstone	Waymarked route from (a) to (d). Access rights to upper saltmarsh. Access rights to lower saltmarsh and intertidal mud excluded. Notices at (b) and (c) to alert people to the likely presence of sensitive waterbirds and ask them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary.	Path users will be within 200 metres of the roost and the upper foreshore will be subject to new access rights. They are partly screened from birds on most tides, but vulnerable on the highest tides when they are pushed closer to the seawall. Roosting birds tend not to be disturbed by path users, but are likely to move if dogs are running freely on the adjacent saltmarsh. Notices will discourage this. Most new users will be on a planned walk and less likely to exercise their dogs here, but it cannot be ruled out completely.	No appreciable increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.

D3.2D Wains Hill to St Thomas Head (Maps D1 and D2)

X) Baseline situation

Existing recreational use

X.i. Maps D1 and D2 show the bay area between Wains Hill in Clevedon and St Thomas Head. D1 shows the north end as far as Channel View, whilst map D2 shows the southwest end from Channel View to St Thomas Head, including tidal sections of the River Yeo and River Banwell.

X.ii. Recreational access for the general public to this part of the coast is largely restricted:

- in the north end of the bay (map D1), to the area between Wains Hill (a) and Kingston Pill (f); and
- at the southwest end (map D2), to the area between the carpark at Huckers Bow (za) and St Thomas Head (zc).

X.iii. The north end of the bay is on the edge of Clevedon, a town with a population of about 20,000. Clevedon has a small tourism sector focussed around the pier to the north. The harbour area below Wains Hill is in walking distance of residential areas in Clevedon and a busy site for local walkers and joggers. We estimate from a visitor counter installed at (b) that there are about 23,000 visits here annually. Many people walking past point (b) follow an existing path through the golf course and along the seawall as far as point (d) where the path splits to form a popular loop as far as the fenced private land at point (f). It is also possible to reach the coast at point (e) via another, shorter path from the nearby road but parking there is very limited. There is no formal car park at (a) but there is on road parking nearby. It attracts people from nearby towns such as Nailsea, Backwell and Portishead.

X.iv. At the southwest end of the bay there is a carpark at Huckers Bow - (za) on map D2. The carpark provides access to National Trust owned land between St Thomas Head and Sand Point to the west (see map E). It is a short drive from residential areas on the edge of Weston-super-Mare and is used primarily by local dog walkers and anglers, with additional visitors on weekends and public holidays. People often walk towards St Thomas Head as far as the tidal pool at (zb) before returning to their car, but people also make longer walks westwards along the cliffs or foreshore towards Sand Point. There is a small fenced area at St Thomas Head that was formerly used to test explosives and has not yet been declared safe for general access.

X.v. There is no general permission to access the coast between Kingston Pill (f) and Huckers Bow (za), but there is recreational activity as follows:

- There is some trespass from (f) along the flood embankment in the direction of Channel View.
- People living in the local village also access the seawall at Channel View (h) with the permission of the land owner, and anglers sometimes fish there at high tide.
- Avon Wildlife Trust permit holders may walk along the seawall between points (h) and (l) to reach Blake's Pools nature reserve, provided they keep their dogs on a lead.
- The farmer sometimes allows people from the nearby village to walk out to Wick Warth, although they seldom walk along the outer seawall between (s) and (y).
- At Wick Warth there is a popular clay pigeon shoot on Sunday mornings, and a model aeroplane club just inland;
- A local wildfowling club is active between Blackstone Rocks and Huckers Bow sluice, including the River Yeo and River Banwell.

Existing physical damage to sensitive habitats by access users

X.vi. The location of sensitive habitats on this part of the estuary is shown on map H. There is small-scale damage to the saltmarsh in some places where informal pathways have developed through regular use:

- People walk on the saltmarsh from point (a) to reach boat moorings around the harbour area and there are worn paths leading to the moorings;
- There is a short path across the upper saltmarsh at (f) between the seawall and the top of the earth embankment; this links parallel paths along those two structures to form a circular route from (d).
- From the carpark at (za) on map D2 there are several worn pathways along the saltmarsh towards St Thomas Head.

X.vii. Between (f) on map D1 and (za) on Map D2, there is no visible evidence of erosion from recreational use.

Existing disturbance to roosting waterbirds by access users

X.viii. Overall existing disturbance to roosting waterbirds from recreation here is less than on most other parts of the site because general access is so restricted. The table below summarises existing disturbance at roost sites, including roosts identified by Latham as significant and several additional roosts which we treat as significant on the basis of other evidence.

Table 18: Existing disturbance to roosting birds (Wain's Hill to St Thomas Head)

Roost location	Existing disturbance
Blackstone Rocks (roost 4A) - rocky platform on map D1	Most people do not venture beyond the seawall, which is more than 200 metres from the roost, or allow their dogs to do so. As such disturbance is minimal.
Dowlais Farm - wet field landward of the seawall on D1	It is unusual for birds to be disturbed by passing walkers or their dogs. Roosting birds are screened from people walking along the seawall by the intervening embankment. There is a permissive path leading from the nearby road to (e). It is separated from the roost by a hedge which partially screens people from birds. Birds may be disturbed here by passing walkers but there are no records of them leaving the roost as a result.
Hooks Ear/Kingston Pill (4B/4C) – saltmarsh/creek on D1	Birds do not move when people walk up to the fence at (f). Access is not permitted between (f) and (g) but there is occasional trespass; when it occurs at high tide, birds usually fly about, sometimes returning and sometimes moving to other nearby roosts.
Channel View (4F) - saltmarsh on map D1	The land owner permits local residents to access the land at (h). There is therefore a risk of disturbance but no records to confirm if it takes place.
Channel View (4G) – saltmarsh/seawall on map D2	The land owner permits local residents to access the seawall at (h). It is sometimes used by anglers at high tide. Roosting birds move down the seawall when people approach them and may fly to other nearby roosts.
Channel View - Fields landward of the seawall between (h) and (j)	Birds may be disturbed by local people walking along the track leading to the seawall at (h), but there are no records of this.
Wharf Farm (4H and 4I) – saltmarsh/seawall on D2	Avon Wildlife Trust members use the seawall to access Blake's Pools but avoid high tide. There is occasionally disturbance by trespassers but this has reduced in recent years because the farm manager actively discourages it.

Blakes Pools – freshwater marsh at (k) on D2	There are frequent visits by Avon Wildlife Trust permit holders but very little disturbance. Permit holders are required to keep dogs on leads and view birds from a hide.
Icelton Farm (4J) - saltmarsh on the south bank of the Yeo on D2	There is no general permission for access on either side of the river and trespass is unusual.
Mill Leaze (4K) - saltmarsh on D2	There is no general permission for access and trespass is unusual. Birds are screened from activity on the south bank of the river by an intervening disused embankment.
Wick Warth east (3L) and central (3J) – saltmarsh on D2	People seldom walk along the outer seawall between (s) and (w), but roosting birds are disturbed when they do.
River Banwell (3K) - saltmarsh/creek on D2	Waterbirds normally roost at the mouth of the Banwell between (w) and (z). They are disturbed if people walk along the riverbank between (z) and (y) but this seldom happens because there is no general permission for access. Walkers sometimes let their dogs roam freely on the saltmarsh at (zb): this may disturb birds at 3K but they do not normally leave the roost.
St Thomas Head (3F) – saltmarsh/open water	Shelduck gather on the water here at high tide. They are sometimes disturbed by walkers or dogs on the foreshore between (zb) and St Thomas Head, but do not normally leave the roost.
St Thomas Head (3C/3D) – shingle/saltmarsh	3D is regularly disturbed; people often walk through it and sometimes let their dogs roam freely there. There is a worn path across 3D and several access points to and from the cliffs above. Disturbance at 3C was infrequent until recent years but there are now more signs that people are walking around the headland towards the north shore.

Existing disturbance to feeding waterbirds by access users

X.ix. There are extensive feeding areas on the intertidal flats, most of which are more than 200 metres from the seawall where people are most likely to be present.

X.x. Waterbirds feeding in the tidal creeks at low tide are closer to the seawall and therefore more vulnerable to disturbance from recreational activity. Redshank in particular are sometimes disturbed when feeding in Kingston Pill (f/g) on map D1, and between Huckers Bow (za) and St Thomas Head (zc). When disturbed they may move to other nearby feeding areas.

XI) Summary of the access proposals

XI.i. The coast path will use an existing walked route as far as (f) on map D1, just short of Kingston Pill. This will be on the seawall or embankment except between (b) and (c) where it follows a track through the golf course. There would be new access rights to a narrow belt of land on the landward side of the path between (c) and (e) on map D1.

XI.ii. From (f) on Map D1 to (za) on map D2 it will follow a new route along existing embankments and field edges. This route has been designed to avoid or reduce visual disturbance to roosting or feeding birds from path users, as detailed in XII below.

XI.iii. From (za) to (zc) on D2 it will follow an existing walked route through fields to St Thomas Head.

XI.iii. Land seaward of the coast path described above would be coastal margin, but access rights to this seaward land would be excluded for nature conservation reasons to the extent shown on maps D1 and D2.

XI.iv. At Wharf Farm, landward of the route between (i) and (l), access rights to additional land would be excluded for land management reasons to the extent shown on D2.

XI.v. At Icelton Farm, between (r) and (s) the path will be open from 16th May and June 30th only (with the proviso that follows) when waterbirds are not present in significant numbers on the River Yeo. The proviso is that this part of the path may be so closed at an earlier date between June 16th and June 30th, in the event that the local WeBs counter reports to Natural England significant numbers of curlew or juvenile shelduck returning to this sector during that period. At all other times of year people will be directed along the alternative route shown in orange to avoid disturbance. There would be no new access rights to the land between the two routes.

XI.vi. People will be required to keep dogs on leads at all times on several short sections of the route as shown on maps D1 and D2.

XI.vii. Additional mitigation will be required for nature conservation purposes, as described in section XII below and indicated on maps D1 and D2.

Predicted change in use of the site for recreation

XI.viii. We expect an increase in use of the route from (a) to (f) arising from its association with the England Coast Path, because it is not yet promoted as a long-distance walking route. The same applies to the route between (za) and (zc). There are existing paths in these places and they are well known to local people, but the designation will attract additional visits by long-distance walkers and day walkers who are not familiar with the area. People on a planned walk are less likely to be attracted away from the waymarked path, so we do not expect any significant change in use of the surrounding coastal margin as a result of the access proposals.

XI.ix. The increase in use of the route from (f) to (za) would be greater because the existing access arrangements are very restricted and unpublicised. This part of the route will attract significant numbers of new local users as well as people from other areas. The new access rights would be confined mainly to the path and we expect most path users to abide by this requirement because the path will be clearly signposted and they will not wish to risk trespass or lose their way. We will take steps to further reduce the likelihood of people leaving the path or letting their dogs do so, in places where this would be likely to increase disturbance to waterbirds (see the tables below).

XI.x. We expect frequency of use on each section of path to be strongly related to its distance from the access points and parking facilities at (a) and (za). Regular dog walkers typically allow up to an hour to exercise their dogs [Ref. 52, p.23]. We expect much lower use of the path between (h) and (s) because it takes more than an hour to walk there and back from (a) and (za).

XI.xi. Walkers may use Wick St Lawrence as the starting point for a short circular walk incorporating the riverbank between (r) and (s). This circular route will only be available between mid-May and mid-June when waterbirds are not present in significant numbers on the river Yeo.

XI.xii. There is potential for a new 8Km (2 hour) circular walk between Wick St Lawrence and Huckers Bow, incorporating that part of the coast path with other inland paths and roads. There are no obvious attractions to the inland part of the walk. It includes several on-road sections with very limited verges; these will discourage many walkers from using them [Ref. 50, p.40].

XI.xiii. There are various other lanes and tracks connecting the route to the road network between (e) and (za), but we do not expect significant numbers of people to use them. Most

are not public rights of way and we expect local land owners to discourage public use of them. Parking, where available, is limited and unpublicised.

XII) Consideration of possible risks to qualifying features at this location in light of the access proposals

Table 19: Possible risk - physical damage to sensitive habitats (Wain's Hill to St Thomas Head)

The location of sensitive habitats on this part of the estuary is shown on map H. In general there is little risk of increased damage to sensitive habitats because the coast path will avoid them. Where they fall within the coastal margin they will typically be excluded from access rights. Below we consider areas of habitat that would be subject to access rights and/or might possibly be subject to more trespass because there would be no physical barrier to access from the path. This takes account of measures to prevent increased disturbance to waterbirds as described in the tables below it.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Saltmarsh seaward of the route from (a) to (b) on map D1	Waymarked route from (a) to (b) Access rights to seaward land, but access exclusion to lower saltmarsh and intertidal mud and sand flats.	The route is not on the saltmarsh. The saltmarsh is already accessible from the route but is used mainly by people to reach boat moorings. We expect no significant increase in use for other purposes.	No increase to existing wear
Saltmarsh from (c) to (f)	Waymarked route from (a) to (b) Access rights to land both seaward and landward of the route, but access exclusion to lower saltmarsh and intertidal mud and sand flats. New signpost in the saltmarsh beside the lower seawall near (f)	The route is on the concrete seawall not the saltmarsh. The saltmarsh is already accessible from the route but there are no signs of wear, except the short, established path across the upper saltmarsh at (f) between the seawall and the top of the earth embankment.	No increase to extent of existing wear. 0.1 square metre loss of saltmarsh habitat

		This path will continue to be used as it is now, as part of a circular walk from Clevedon, but will not be part of the coast path. We will insert a 250 mm square post at the side of the worn area to direct people along it, to reduce risk of disturbance to birds roosting between (f) and (g). The post will be hand dug, with access via the concrete seawall.	
Saltmarsh from (f) on D1 to (i) on D2	Waymarked route on the sea wall and embankment from (f) to (i) Access rights to seaward land between (g) and (h). Access rights excluded elsewhere. Willow screen seaward of route from (f) to (g). Signs on the embankment at (f) and (g) to discourage trespass seaward of the screen Post and wire fence seaward of route from (h) to (i). Viewpoints on the embankment at (h) and (i).	The route will not be on saltmarsh. The screen from (f) to (g) will be above the saltmarsh. It will make the saltmarsh more difficult to access than at present. Provision of the waymarked route on the embankment will make it less likely that walkers choose to access it. The upper saltmarsh from (g) to (h) will be newly accessible. Numbers walking on it, in preference to the waymarked route on the embankment, will not be sufficient to cause any significant wear. The saltmarsh from (h) to (i) will be excluded. It is difficult to walk on and we expect no wear from access users.	No appreciable risk

Saltmarsh from (i) to (l) on D2	Waymarked route inland from (i) to (l) Access rights to seaward land excluded.	The route will be inland. There are already barbed-wire fences between the route and the saltmarsh. Access to the saltmarsh will be excluded. It is soft and difficult to walk on safely.	No appreciable risk
Saltmarsh from (l) to (r) on D2	Waymarked route from (l) to (r). Access rights to seaward land excluded. Notices at (l) (m) (o) (p) and (r) discouraging people from leaving the path, to minimise disturbance to waterbirds.	The route will not be on saltmarsh. From (l) to (m) the saltmarsh will be newly accessible from the route, but there is no obvious attraction to walking there and notices will discourage people from doing so. From (m) to (o) the route will be separated from the saltmarsh by stock fences. From (o) to (r) the saltmarsh will be newly accessible from the route, but there is no obvious attraction to walking there and notices will discourage people from doing so.	No appreciable risk
Saltmarsh from (r) to (s)	Waymarked route from (r) to (s), open May 16th to June 30th only (with the proviso given at paragraph X.iv above). Access rights to seaward land excluded.	Access along the path adjacent to the saltmarsh will only be available for a short period in spring. As such there is no realistic scope for significant damage to take place.	No appreciable risk

	Notices at (r) and (s) discouraging people from leaving the path, to minimise disturbance to waterbirds. Alternative route (in orange) available at other times. Gates to embankment path at (r) and (s) locked and signs adjusted.		
Saltmarsh from (s) to (v)	Waymarked route from (s) to (v). Access rights to seaward land excluded. New notices, gates and guide fencing between (t) and (v) to discourage people from leaving the path, to minimise disturbance to waterbirds.	The route will not be on saltmarsh. To reach the saltmarsh it is necessary to clamber over rock armour. There is no obvious attraction to walking on the saltmarsh, which is very wet and soft. Notices will discourage people from doing so.	No appreciable risk
Saltmarsh from (v) to (za)	Waymarked route from (v) to (za). Access rights to seaward land excluded. New notices and guide fencing between (w) and (y) to discourage people from leaving the path, to minimise disturbance to waterbirds. New notices and stock fencing between (y) and (z) to discourage	The route will not be on saltmarsh. From (v) to (w) the route will be separated from the saltmarsh by a ditch and fence. From (y) to (z) the route will be separated from the saltmarsh by a ditch and fence. From (w) to (y) and (z) to (za) the saltmarsh will be newly accessible from the route, but there is no obvious	No appreciable risk

	people from leaving the path, to minimise disturbance to waterbirds.	attraction to walking there and notices will discourage people from doing so.	
Saltmarsh from (za) to (zc)	Waymarked route from (za) to (zc) Access rights to lower saltmarsh and intertidal mud and sand flats excluded. Existing access points to saltmarsh between (zb) and (zc) to be blocked up.	The route is not on the saltmarsh and leads people away from it, through landward fields. There are established worn paths across the saltmarsh between (za) and St Thomas Head. Plans are already in place to reduce wear: the vegetation on the embankment between (za) and (zb) will be cut back, making it drier and more convenient to walk on; a fence across the saltmarsh at (zb) will significantly reduce it.	Existing wear on the saltmarsh will reduce before the coast path proposals are considered. Blocking up the access points between (zb) nd (zc) will further reduce the existing wear.

Table 20: Possible risk - increased disturbance to feeding waterbirds (Wain's Hill to St Thomas Head)

As elsewhere on the Severn, there are extensive feeding areas for waterbirds on the intertidal mud and sand flats at least 200 metres from the coast path. Risks on this part of the site arise mainly in relation to redshank because they often choose to feed along the rivers and creeks that are closer to the new path. Access to the intertidal areas in known to be dangerous; the main risk is from people and dogs on the embankments and the upper saltmarsh between (za) and St Thomas Head. Three features of the access proposals avoid or mitigate this risk:

- The exact location of the route - at sensitive locations, typically passing on the landward side of the main sea embankment and or otherwise out of sight of waterbirds.
- The extent of new access rights – with certain exceptions noted below, new access rights are restricted to the path;
- The quality of the walking route – reducing the risk of trespass by offering a pleasant and well-signposted walk throughout, allowing sea views wherever doing so will not cause significant disturbance.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Kingston Pill to Congressbury Yeo: sector BV641 Qualifying features: redshank Other species cited as contributing to the assemblage: grey plover Other species that are part of the assemblage: snipe, turnstone	Waymarked route from (f) to (l) Access rights to seaward land excluded to the extent shown on maps D1 and D2 Willow screen seaward of the route from (f) to (g), to include sheep netting to prevent dogs from getting through while growth thickens.	Path users will be within 200 metres of feeding areas from (f) to (i) but only visible to feeding birds from (g) to (h). Disturbance from (f) to (g) and from (h) to (i) will reduce as users will be screened from feeding birds. They will be strongly discouraged from walking in view by fences and	Overall the risk of disturbance in this sector will reduce, although there will be a localised increase from (g) to (h), where the path is set back from the intertidal areas.

	Notices at (f) and (g) to explain sensitivity Route from (h) to (l) landward of embankment. New stock fence seaward of the route from (h) to (i), Notice at (h) discouraging trespass along the seawall from (h) to (i) Viewpoints at (f) and (i)	notices and given viewpoints where disturbance risk is minimal. There will be a slight increase in disturbance from (f) to (g) where users may choose to walk along the lower seawall, seaward of the waymarked route. This will only happen occasionally – in general people will follow the waymarked route further away from feeding areas. Below the seawall.	
Congressbury Yeo: sector BV644 Qualifying features: redshank, shelduck	<u>Northeast bank</u> Waymarked route from (l) to (r): • (l) to (m) on bank top • (m) to (p) landward of bank • (p) to (r) on bank top Access rights to seaward land excluded to the extent shown on map D2 Direction to require people to keep dogs on leads from (l) to (m) Notice at (l) and (m) explain sensitivity and ask people to keep to the path.	<u>General</u> Redshank are considered vulnerable to disturbance. Most birds leave the Yeo in April for their breeding grounds and start to reappear in small numbers in late June/early July. Young shelduck gather in significant numbers on the Yeo in late June to feed and loaf before their flight feathers are fully developed. They are vulnerable to disturbance, and	Overall disturbance to feeding waterbirds will increase slightly in this sector, but not significantly. Most feeding areas in the main channel will be well protected and user frequency will be low. There is a residual risk of disturbance to redshank and shelduck feeding on the saltmarsh adjacent to the route from (l) to (m) and in the creeks around Tutshill (p) to (r).

	New wing fence and field gate at (m) to discourage people from walking on to the disused bank to seaward. New stock fence at (m) to prevent access to the seaward embankment. Move existing fence from (m) to (n) to accommodate path on landward side. Prominent fingerposts at (o) and (p) so people can easily follow the path. Notices at (o) and (p) explaining the sensitivity. <u>Southwest bank</u> Waymarked route from (r) to (s). Access rights to seaward land excluded to the extent shown on map D2. Riverbank route from (r) to (s) closed from 1st July to 15th May, with the proviso given at paragraph X.iv above. Alternative route shown in orange on map D2 available at other times.	predation by dogs until flight feathers have developed. Frequency of use will be low in this sector, in particular in winter when feeding requirements are more critical, because it takes at least one hour to walk there and back from the main access points at (a) and (za). <u>Northwest bank</u> Path users will be less than 200 metres between (l) and (r), but only visible to feeding birds at particular locations. The route from (l) to (m) is partially screened from the main channel by a disused embankment. Notices and wing fences will discourage trespass on the disused embankment where users would be visible to waterbirds feeding in the main river channel. We have agreed to give a direction requiring dogs to be on leads between (l) and (m), to replicate existing rules for Avon Wildlife Trust	Such disturbance may cause waterbirds to stop feeding temporarily or to fly short distances to other feeding areas in the sector that are not disturbed. In view of the low frequency of disturbance, these effects will be temporary and will not result in long-term changes to the numbers or distribution of waterbirds feeding in this sector.

	Ramblers Association to unlock pedestrian gates giving access to the riverbank at (r) and (s) on 15th May (pm) and lock them on 1st July (am), with the proviso given at paragraph X.iv above. Signposts at (r) and (s) to be adjusted accordingly, on the same dates. Notices at (r) and (s) to explain sensitivity. Screen at (s) to allow people to view birds upstream without disturbing them	members. This will reduce the risk of disturbance to feeding waterbirds generally, and predation of juvenile shelduck in particular, at this location. The waymarked route is not visible to feeding birds from (m) to (p). Barriers and notices will discourage trespass on the embankment where users would be visible to birds. The waymarked route from (p) to (r) will be visible to feeding birds. <u>Southwest bank</u> The new path from (r) to (s) will only be open from 16 May to 30 June each year, when shelduck and redshank are not recorded in significant numbers. Locked gates signs and notices will strongly discourage trespass at other times and the alternative route will be available. If shelduck return in significant numbers before 1st July, this part of the path can be closed earlier (see paragraph X.iv above).	

Wick Warth to Woodspring Priory: sector BV798 Qualifying features: redshank, lapwing Other species cited as contributing to the assemblage: curlew *St Thomas Head: sector BV797* Qualifying features: redshank, lapwing Other species cited as contributing to the assemblage: grey plover	Waymarked route from (s) to (zc). Access rights to seaward land excluded to the extent shown on map D2 New notice, gate and wing fences at (t) on the seawall at (t) to discourage trespass on the seawall in the direction of St Thomas Head. Route along the landward toe of the seawall from (t) to (v), with guide fencing and notices at (t) (u) and (v) to encourage users to keep dogs with them on the path. Direction requiring dogs to be on leads from (w) to (y). Notices at (w) and (y) to explain sensitivity. Guide fencing and waymarker posts at intervals from (w) to (x) to encourage users to keep dogs with them on the path. Route along the landward toe of the bank from (y) to (z). New stock fencing and notices along the bank toe to discourage access along the bank top.	Feeding habitat in these sectors is less than 200 metres from the path. Disturbance risk from path users is limited, because they will only be visible to feeding birds from (s) to (t), from (x) to (y) and from (z) to (za). Existing barriers and new barriers and notices proposed will strongly discourage trespass from (t) to (w) and from (y) to (z). The position of the route from (w) to (y) will provide fine sea views. Guide fencing and extra waymarks and notices will further encourage people to keep to the path with dogs on leads. There will be occasional trespass but most users will adopt the required behaviour. People walk along the saltmarsh between Huckers Bow and St Thomas Head and sometimes let their dogs run freely. This causes regular disturbance. The new waymarked route will lead users	Overall disturbance to feeding waterbirds will remain similar to current levels in these sectors, with improved protection from (za) to St Thomas Head, but some new risk along short sections of the new path between (s) and (za) and occasional trespass along the riverbank between (w) and (x). Disturbance may cause waterbirds to stop feeding temporarily or to fly short distances to nearby feeding areas that are not disturbed. These effects will be temporary and will not result in long-term changes to the numbers or distribution of waterbirds feeding in this sector.

	Waymarked route from (za) to (zc) away from foreshore. Promote the foreshore around St Thomas Head as a refuge for waterbirds, as indicated on map D2. Block up existing access points to shoreline from (zb) to (zc). New stock fence across saltmarsh from (za) to (zb) Notice at pool near (zb) to explain sensitivity and discourage access along the foreshore towards St Thomas Head	away from sensitive parts of the foreshore. Other measures will encourage existing users to avoid the foreshore around the head where disturbance risk is greatest.	

Table 21: Possible risk - Increased disturbance to roosting waterbirds (Wain's Hill to St Thomas Head)

Three aspects of the new path proposals avoid or mitigate disturbance to many roosts considered below:

- The exact location of the route - at sensitive locations, often passing on the landward side of the main sea embankment and therefore screened from waterbirds.
- The extent of new access rights – with certain exceptions noted below, new access rights are restricted to the path.
- The quality of the walking route – limiting the risk of trespass by offering a pleasant walk throughout, allowing sea views wherever doing so will not cause significant disturbance.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Roost 4A: Blackstone Rocks Species that are part of the assemblage: turnstone	Waymarked route from (c) to (d) Access rights to seaward land excluded to the extent shown on map D1	Path use is not a concern because the roost is further than 200 metres from the coast path. Use of the coastal margin is not a concern because access rights will be excluded as shown and roosts will remain difficult to reach safely on foot.	No appreciable risk
Dowlais Farm [Ref. 46] Qualifying features: redshank, shelduck, lapwing	Waymarked route from (c) to (f) Access rights to the embankment overlooking the roost.	Path use is not a concern because the roost is screened from the coast path route by the embankment and people rarely stray into view.	No appreciable risk

Other species cited as contributing to the assemblage: curlew Other species that are part of the assemblage: snipe		The field with the roost in it is not part of the coastal margin and is separated from it by a stock fence. There is a path which meets the coast path at (e) which may attract more use indirectly as a result of the access proposals. It follows a lane next to the field with the roost in it. There is a hedge along it which screens walkers and dogs from birds and a fence which discourages unauthorised entry to the field. Birds are not normally disturbed by walkers on this path.	
Roost 4B/C: Hooks Ear and Kingston Pill Qualifying features: dunlin, redshank, shelduck, teal, lapwing Other species cited as contributing to the assemblage: curlew, wigeon Other species that are part of the assemblage: snipe, little egret, mallard	Waymarked route from (f) to (l) Access rights to seaward land excluded to the extent shown on maps D1 and D2 Willow screen seaward of the route from (f) to (g). Include sheep netting to prevent dogs from getting through while growth thickens.	The new path from (f) and (g) is within 200 metres of the roost, but screened from view. The screen will also stop people straying into the excluded area while walking along the path between (f) and (g). People sometimes walk along the seawall, seaward of the proposed route, and climb over the field gate there, which can disturb roosting	Current disturbance levels will reduce, because the coast path will provide a pleasant alternative to that is out of sight of roosting birds.

	Position below horizon formed by existing bank to reduce effect on existing sightlines. Cut annually by North Somerset Council to encourage dense growth, maintain estuary views for walkers and sightlines for roosting birds. Notices at (f) and (g) to explain sensitivity. New waymark on the lower seawall and prominent fingerpost at (f)	birds. Various measures will strongly encourage them to use the coast path instead, once available.	
Roost 4F: saltmarsh at Channel View Qualifying features: dunlin, redshank Other species cited as contributing to the assemblage: curlew Other species that are part of the assemblage: snipe, little egret	Waymarked route from (g) to (h). Access rights to upper saltmarsh where birds roost.	The new path between (g) and (h) is within 200 metres of the roost and visible to roosting birds. There is no existing physical barrier between the path and the roost. Waterbirds only roost here on very high tides when Kingston Pill (4B) is submerged. Even when these specific circumstances occur, it is unusual for waterbirds to roost here. On very high tides, the path at (c) is temporarily submerged and walkers	Disturbance risk will increase here. This is not considered significant, because birds rarely roost in this location and alternative roosts are available nearby, so limiting the energy cost of disturbance.

		from Clevedon may be held up until the tide recedes.	
Roost 4G: Channel View seawall Qualifying features: ringed plover, dunlin, whimbrel, redshank Other species cited as contributing to the assemblage: curlew, grey plover Other species that are part of the assemblage: turnstone, bar-tailed godwit	Waymarked route from (h) to (i). Access rights to seaward land excluded to the extent shown on maps D1 and D2 Stock fence with one strand wire between path and bank crest. Viewpoints at (h) Observation screen at (i). Notice on seawall access at (h) to explain sensitivity	The path will be landward of the main embankment, out of sight to roosting birds. The viewpoints provided will encourage people to follow it. The fence and notice will strongly discourage trespass in areas where users are currently visible. It will also prevent dogs from straying on to the bank. The viewpoints will encourage people to follow the waymarked route.	Current disturbance levels will reduce, because the coast path will provide a pleasant alternative to that is out of sight of roosting birds.
Fields immediately landward of roost 4G [Ref. 47] Qualifying features: whimbrel Other species cited as contributing to the assemblage: curlew	Waymarked route from (h) to (j) Direction requiring path users to keep dogs on leads between (i) and (j) as indicated on map D2. Notices on gates at (i) and (j) to explain this.	The new path between (h) and (j) is within 200 metres of the roost and visible to roosting birds. Between (h) and (i) there is a ditch between the path and the roost. Between (i) and (j) there is no physical barrier between path and roost. Between (h) and (i) people on the path will be visible to roosting birds,	Disturbance risk will increase here but not significantly, because the position of the route and the requirement to keep dogs on leads significantly reduce the likelihood that birds will leave the roost. There are other nearby roosts, so reducing the energy cost if birds are displaced.

		but below the bank crest and not silhouetted against the skyline, so reducing the likelihood of disturbance. Between (i) and (j) there is a risk of dogs running freely in the direction of roosting birds. The direction will reduce this risk.	
Roost 4H: Wharf Farm sea defence Qualifying features: dunlin, whimbrel, redshank Other species cited as contributing to the assemblage: curlew, grey plover Other species that are part of the assemblage: turnstone	Waymarked route from (h) to (l). Access rights to seaward land excluded to the extent shown on D2. New stock fence seaward of the route from (h) to (i). Observation screen at (i)	The new path is inland between (i) and (l), avoiding the sensitive area altogether and there will be no new access rights to the intervening land. There are stock fences and ditches to discourage access there and the farm manager already actively discourages access. The observation screen will encourage people to keep to the route.	Disturbance risk will remain at current low levels.
Roost 4I: Congressbury Yeo mouth Qualifying features: dunlin, redshank Other species cited as contributing to the assemblage: curlew	Waymarked route from (r) to (t). Access rights to seaward land excluded to the extent shown on D2. Observation screen at (s)	People on the far side of the river mouth are visible to birds roosting at 4I, which is within 200 metres at its closest point.	Disturbance risk will remain at current low levels.

Other species that are part of the assemblage: snipe		Roosting birds at 4l do not, in our experience, move when people are present at (s), but show signs of increased alertness. This happens at other locations on the Severn where there is a river or pill between a path and nearby roost. The observation screen will allow people to observe roosting birds without standing in full view.	
Blake's Pools [Ref. 3] Qualifying features: redshank, shelduck, lapwing Other species cited as contributing to the assemblage: tufted duck Other species that are part of the assemblage: little grebe, little egret, green sandpiper, common sandpiper	Waymarked route from (k) to (l). Willow screen along the edge of the path around (k). Include fence with barbed wire and sheep netting to prevent browsing by stock and stop dogs from getting through while willow establishes. Observation screen at (k).	At (k) the path passes along the northern edge of a freshwater marsh where birds roost and feed. The screen will allow users to view roosting birds without disturbing them.	Disturbance risk will remain at current low levels.
Pond A No count data available	Waymarked route from (l) to (n)	This is a new pond that appears to be attracting waterbirds to roost and loaf. It is visible from the route at (m) which is within 200 metres of the	Disturbance will remain at current low levels.

		closest part of the pond, but screened by hedgerows elsewhere. Roosting birds do not, in our experience, move when people are present at (m), but may become more alert.	
Roost 4J: Icelton Farm Qualifying features: dunlin, whimbrel, redshank Other species cited as contributing to the assemblage: curlew Other species that are part of the assemblage: black-tailed godwit, bar-tailed godwit	<u>Northeast bank</u> Waymarked route from (l) to (r): • (l) to (m) on bank top • (m) to (p) landward of bank • (p) to (r) on bank top Access rights to seaward land excluded to the extent shown on map D2 Direction to require people to keep dogs on leads from (l) to (m) Notice at (l) and (m) explain sensitivity and ask people to keep to the path. New wing fence and field gate at (m) to discourage people from walking on to the disused bank to seaward.	<u>Northeast bank</u> The route is at least 200 metres from the roost in most places and separated from it by the river. Frequency of use will be low, in particular in winter when feeding requirements are more critical, because it is more than one hour's walk from the main access points at (a) and (za). Path users will be visible to birds briefly between (l) and (m) where there is a breach in the disused bank between them, but this is more than 200 metres away. Path users are also visible to birds at the southern end of the roost from (p). Birds at 4J are not, in our	Disturbance risk from the northeast bank will remain at current low levels. There is residual risk from trespassers at (o) but there are sufficient measures in place to keep trespass to a minimum.

	New stock fence at (m) to prevent access to the seaward embankment. Move existing fence from (m) to (n) to accommodate path on landward side. Prominent fingerposts at (o) and (p) so people can easily follow the path. Notices at (o) and (p) explaining the sensitivity.	experience, displaced by people walking in these places, but may become more alert. This happens at other locations on the Severn where there is a river or pill between a path and nearby roost. Between (l) and (o) a combination of new and existing fences will present a continuous barrier between the route and the river and notices will encourage users to stick to the route. Trespass is very unlikely for this reason. From (o) to (p) the route is on a disused bank that provides an attractive elevation but out of sight of the roost. Fingerposts and notices will encourage people to keep dogs on leads throughout this section.	
Roost 4J: Icelton Farm Qualifying features: dunlin, whimbrel, redshank Other species cited as contributing to the assemblage: curlew	<u>Southwest bank</u> Waymarked route from (r) to (s) Access rights to seaward land excluded to the extent shown on map D2	<u>Southwest bank</u> The path will only be open from May 16th to June 30th each year, when birds are not normally present on this roost in significant numbers. If curlew reappear in significant	Disturbance risk will remain at current low levels during the period of sensitivity.

Other species that are part of the assemblage: black-tailed godwit, bar-tailed godwit	Route from (r) to (s) closed from 1st July to 15th May, with the proviso given at paragraph X.iv above. Alternative route shown in orange on map D2 available at other times. Ramblers Association to unlock pedestrian gates giving access to the riverbank at (r) and (s) on 15th May (pm), and lock them on 1st July (am), with the proviso given at paragraph X.iv above. Signposts at (r) and (s) to be adjusted accordingly, on the same dates. Notices at (r) and (s) to explain sensitivity. Screen at (s) to allow people to view birds upstream without disturbing them	numbers before June 30th, the path can be closed at an earlier date – see paragraph X.iv. above. An alternative route will operate at other times, as shown on map D2. The locked gates and notices will strongly discourage trespass near the roost and the alternative route will encourage them to continue their journey without doing so.	
Roost 4K: Mill Leaze Qualifying features: redshank	Waymarked route from (m) to (p) Access rights to seaward land excluded to the extent shown on map D2	There are embankments all around roost 4K which screen it from the new path on both the north and south banks of the river. From (m) to (o) there is an existing fence between the path and the	Disturbance risk will remain at current low levels. There is a residual risk of disturbance from trespassers on the bank at (o) but there are sufficient measures in place to minimise this.

	Move existing fence from (m) to (n) to accommodate path on landward side. Prominent fingerposts at (o) and (p) so people can easily follow the path on lower bank.. Notices at (o) and (p) explaining the sensitivity.	embankment that discourages trespass. From (o) to (p) the route is on a disused bank that provides an attractive elevation but out of sight of the roost. Fingerposts and notices will encourage people to keep dogs on leads throughout this section.	
Ponds B to F No count data available	Waymarked route from (r) to (s) Route from (r) to (s) closed from 1st July to 15th May, with the proviso given at paragraph X.iv above. Alternative route shown in orange on map D2 available at other times. Ramblers Association to unlock pedestrian gates giving access to the riverbank at (r) and (s) on 15th May (pm), and lock them on 1st July (am), with the proviso given at paragraph X.iv above. Signposts at (r) and (s) to be adjusted accordingly, on the same dates.	These are new ponds that may attract waterbirds to roost and loaf. They are visible from the main route, but this will not be used at times when waterbirds are present in significant numbers. The alternative route passes close to ponds B and C, but path users are only visible to birds on pond B.	Disturbance risk to ponds C to F will remain at current low levels during the period of sensitivity. There is a residual risk of disturbance to pond B, but this is not considered significant in view of the availability of other undisturbed ponds nearby.

	Notices at (r) and (s) to explain sensitivity.		
Roost 3L: Wick Warth (east) Qualifying features: whimbrel, redshank Other species cited as contributing to the assemblage: curlew, grey plover	Waymarked route from (s) to (t). Access rights to seaward land excluded to the extent shown on map D2.	The saltmarsh where the birds roost is not suitable to walk on, but the new path between (s) and (t) is within 200 metres of the roost and visible to roosting birds. Waterbirds sometimes roost here on rising tides. At neap tides they may remain if water level and wave action allows. They are often disturbed by the rising tide and move to nearby roosts.	Disturbance risk will increase, but this is not considered significant because birds are often disturbed here by tide and wave action (particularly on spring tides) and there are alternative nearby roosts that are better protected.
Roost 3J: Wick Warth (central) Species cited as contributing to the assemblage: curlew, grey plover	Waymarked route from (s) to (w). Access rights to seaward land excluded to the extent shown on map D2 New notice, gate and wing fences at (t) on the seawall at (t) to discourage trespass on the seawall in the direction of St Thomas Head. Route along the landward toe of the seawall from (t) to (v).	Path users at (t) could be visible to birds on roost 3J and are within 200 metres. The path from (t) to (v) is out of sight, below the bank on the landward side. The bank is generally steep and difficult to climb from the path. New fences and notices will discourage trespass along the seawall.	Disturbance risk will remain at current low levels. There is a residual risk of disturbance from path users at (t) but it is not significant. Birds may respond by moving further along the seawall but are unlikely to leave the roost.

	Guide fencing and notices at (t) (u) and (v) to encourage users to keep dogs with them on the path.		
Treatment Works [Ref. 56] Species cited as contributing to the assemblage: tufted duck	Waymarked route from (s) to (w)	The ponds at the treatment works are not visible from the route and there is no lawful means of access to them.	Disturbance will remain at current low levels.
Roost 3K: River Banwell Qualifying features: redshank	Waymarked route from (w) to (za) Access rights to seaward land excluded to the extent shown on map D2 Direction requiring dogs to be on leads from (w) to (y). Notices at (w) and (y) to explain sensitivity. Guide fencing and waymarker posts at intervals from (w) to (x) to encourage users to keep dogs with them on the path. Route along the landward toe of the bank from (y) to (z). New stock fencing and notices to discourage access along the bank top.	Birds roost near the mouth of the creek between (w) and (z), within 200 metres of the new path. Between (w) and (x) the path is set back from the edge of the bank. This screens path users from birds in the channel and makes disturbance unlikely unless people or dogs stray towards the edge of the river. Guide fencing, prominent waymarks and advisory notices will encourage users to stick to the path. The requirement to keep dogs on leads will significantly reduce the likelihood of disturbance. Between (x) and (y) path users are visible to birds roosting in the creek,	Overall disturbance to roosting waterbirds will remain at current levels, with improved protection from (za) to St Thomas Head. There is a residual risk of trespass off the path from (w) to (x), but the measures proposed are sufficient to keep this to a minimum.

	Waymarked route from (za) to (zc) away from foreshore. Promote the foreshore around St Thomas Head as a refuge for waterbirds, as indicated on map D2. Block up existing access points to shoreline from (zb) to (zc). New stock fence across saltmarsh from (za) to (zb) Notice at pool near (zb) to explain sensitivity and discourage access along the foreshore towards St Thomas Head	but more than 200 metres from the mouth where birds prefer to gather. Between (y) and (z) the path will be out of sight on the landward side of the embankment and there is an existing stock fence with barbed wire between the path and the bank top. Between (z) and (za) they are out of sight of the main roosting area, making disturbance unlikely unless people or dogs get closer to the roost. The new fencing at (z) will make that very unlikely. Existing disturbance from the other side of the river mouth, around (zb), will reduce as a result of the new fence and route position.	
New Bow pond No count data available	Waymarked route from (x) to (y).	The roost is within 200 metres of the path. The path is partly screened from roosting birds by trees, but there is a risk of disturbance.	Disturbance risk may increase slightly because the path is visible to birds roosting on some parts of the pond. This is not considered significant because of the availability of other nearby roosts if birds are displaced, so reducing the energy cost if birds are displaced.

Roost 3C/D: St Thomas Head Qualifying features: redshank *Roost 3F: St Thomas Head* Qualifying features: shelduck	Waymarked route from (za) to (zc) away from foreshore. Access rights to seaward land excluded to the extent shown on map D2 Promote the foreshore around St Thomas Head as a refuge for waterbirds, as indicated on map D2. Block up existing access points to shoreline from (zb) to (zc). New stock fence across saltmarsh from (za) to (zb) Notice at pool near (zb) to explain sensitivity and discourage access along the foreshore towards St Thomas Head.	The new path is less than 200 metres from roost 3D and 3F at (z), but separated from 3D by the river. Roosting birds are unlikely to be displaced for this reason, but may become more alert when people area passing. Between (zb) and (zc) the route passes less than 200 metres from 3D and 3C but users are not visible to roosting birds. The notice and new stock fence will discourage users from approaching the roost. There is a security fence seaward of (zc) that affords protection to 3C.	Current disturbance levels will reduce as a result of the mitigation proposed.

D3.2E St Thomas Head to Uphill Beach Carpark

XIII) Baseline situation

Existing recreational use

XIII.i. Wildlife sensitivities on this part of the coast are concentrated in the Sand Bay area shown on map E. Weston Bay, to the south of map E, is not considered in detail for this reason and there is no map of Weston Bay in the assessment.

XIII.ii. It is already possible to walk along this part of the coast without interruption. Navigation is reasonably straightforward although there is no promoted route. There are frequent carparks and strong traditions of recreational use on the upper foreshore throughout.

XIII.iii. At the north end lies Sand Bay, shown on map E. This is a better-known to local people than tourists but includes several holiday parks with accommodation and easy access to the sea. The beach and dunes are well-used on a daily basis and busy on weekends and holidays throughout the year. Use is concentrated around the three main carparks shown on the map. There are warning signs all along the beach to discourage people from venturing on to the intertidal flats. Local people rarely venture further than fifty metres or so from the foot of the dunes, but people sometimes walk out on to the flats in the bay at low tides.

XIII.iv. The top carpark at point (c) gives access to National Trust-owned land between St Thomas Head (a) and Sand Point (b). The cliff path to Sand Point is a popular short walk. The cliffs between Sand Point and St Thomas Head are much quieter, but there is an established path between them which gives access to the coves and beaches along the north-facing coast - these are occasionally visited by anglers, and walkers exploring the headland.

XIII.v. The beach and dunes between the top carpark (c) and middle carpark (e) are quieter than the southern part of the bay, but there is an informal pathway along the foot of the dunes. There is also an informal pathway along the northern edge of the bay, at the foot of Swallow Cliff, which peters out after two hundred metres. This is less frequently used, but the worn path offers encouragement for new visitors to explore it.

XIII.vi. The beach between the middle carpark (e) and southern carpark (f) is a popular place for local people to exercise their dogs off lead. There is a concrete esplanade between the two, affording scope for a circular walk incorporating the beach.

XIII.vii. The rocky shore between the southern car park (f) and Birnbeck Pier (g) is much less frequently visited than the rest of the Bay, being more difficult to access, separated from Worlebury Hill by the road and often in its shadow.

XIII.viii. Weston-super-Mare is the busiest part of the coast between Aust and Brean; it attracts roughly 10 million visits annually and has a local population of about eighty

thousand. The north end of Weston Bay (in the bottom left corner of map E) is quieter than the main beach area and most tourists do not walk north of the disused pier at Birnbeck (g). The rocky beach there is accessible from the esplanade but there are warning signs to discourage people from walking under the pier or across to Birnbeck Island.

Existing physical damage to sensitive habitats by access users

XIII.ix. The location of sensitive habitats on this part of the estuary is shown on map I.

XIII.x. There is extensive saltmarsh at the northern end of Sand Bay. There are informal pathways along the landward edges of this area as described above. The pathway between points (c) and (e) is widening in places where people step off the worn route to avoid wetter ground and newly eroded areas are developing in several places for this reason. The pathway below Swallow Cliff is drier and the damage is more limited. There is no evidence of other damage.

XIII.xi. There are areas of biogenic Sabellaria reef at St Thomas Head, Sand Point and Birnbeck Pier. They are at the very edge of the tidal limit and only exposed on very low tides, a few times a month. To reach them, it is necessary to walk across an area of small rocks and cobbles that are covered in seaweed. There is no evidence of recreational damage to the reef.

XIII.xii. The limestone grassland between St Thomas Head (a) and Sand Point (b) is considered separately in our published Nature Conservation Assessment [Ref. 24] because it is not part of the Mendip Limestone Grasslands SAC.

Existing disturbance to roosting waterbirds by access users

XIII.xiii. Latham [Ref. 21] highlights the following locations marked on map E an important high tide roosts:

- Sand Bay north (Roosts 2A and 2B)
- Sand Bay south (roost 2C)

XIII.xiv. Birds are rarely disturbed on 2A, the more landward of the two northern roosts, but they are sometimes displaced from roost 2B by dogs roaming freely on the foreshore as the tide recedes [Ref. 21, p.24].

XIII.xv. There are no records of walkers or dogs disturbing birds roosting on the sheltered water at the south end of the bay (roost 2C), perhaps because the foreshore is very limited at high tide.

Existing disturbance to feeding waterbirds by access users

XIII.xvi. Dunlin, shelduck and redshank have been recorded feeding in significant numbers on the intertidal flats beyond the beach at both Sand bay and Weston Bay (to the south of the area on map E). It is likely that birds are sometimes distracted from feeding by recreational activity on the upper foreshore, but are only occasionally displaced when people or their dogs venture on to the intertidal mud. It is possible that birds choose to feed in areas where such disturbance is less likely.

XIV) Summary of the access proposals

XIV.i. The proposed route for the coast path is shown in detail on maps 7a to 8c of our published proposals. It follows existing walked routes from St Thomas Head to Uphill Beach carpark except:

- at the north end of Sand Bay, as indicated on map E, where a short section of new path will be created through the dune scrub to reduce damage along the existing path through the saltmarsh seaward of it.
- Above Birnbeck Pier, where a short section of path will be created to link Worlebury Woods to the esplanade more clearly.

XIV.ii. There would be new waymarks along the proposed route to help walkers follow the coast path and minor works to create new sections of path at the locations above.

XIV.iii. Land seaward of the coast path would be coastal margin, but land covered by buildings and the curtilage of buildings would be excepted from new access rights, including those around Birnbeck Pier (g).

XIV.iv. There would be access rights to the intertidal flats and saltmarsh, but there would continue to be warning signs and (in Weston-super-Mare) lifeguards to discourage people from venturing on to the soft mud and sand beyond the beaches.

XIV.v. The north end of Sand Bay will be promoted as a refuge for waterbirds as indicated on map E. There will be notices at (c) and (e) to to alert people to the likely presence of sensitive waterbirds and ask them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary.

XIV.vi. There would also be new rights to parts of Middle Hope, landward of the proposed route. This would include the existing access land shown on the map and the existing access rights there would become coastal access rights. This will not affect European sites or features.

Predicted change in use of the site for recreation

XIV.vii. We expect an increase in use of the route from St Thomas Head to Uphill Beach carpark arising from its association with the England Coast Path, because it is not yet promoted as a long-distance walking route.

XIV.viii. A significant proportion of additional visits will be long-distance walkers, or day walkers who are not familiar with the area. Fewer local people will be newly attracted to the route because it is already accessible and well known to them.

XIV.ix. New users on planned walks are less likely to be attracted away from the path than existing, regular users, or to allow their dogs to roam over the foreshore. However, a small proportion of the additional visitors may be on shorter walks and will be more likely to leave the path, in particular:

- To reach the cliffs and coves at the northern edge of Middle Hope, which are accessible in places from the path.
- Along the path at the foot of Swallow Cliff, because the coast path would intersect with it at the carpark.

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

Table 22: Possible risk - physical damage to sensitive habitats by access users (St Thomas Head to Uphill Beach carpark)

The location of sensitive habitats on this part of the estuary is shown on map I.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Saltmarsh seaward of the route from (b) to (e)	Waymarked route from (b) to (e). New section of path around (d) to divert people away from area of damaged saltmarsh. New access rights to seaward land.	The saltmarsh is already accessible but existing users stick to the landward edge. There is damage at (d) where walkers try to avoid the wettest places on the existing path. The coast path will offer an alternative.	Reduction in damage at (d). No appreciable risk in other places.
Biogenic Sabellaria reef seaward of the route at St Thomas Head	Waymarked route from (a) to (b) New access rights to seaward land.	The reef will be subject to new access rights. It is possible to approach it from the existing path, but only by clambering over rocks. It is only visible for 2 hours maximum at the lowest tides.	No appreciable risk
Biogenic Sabellaria reef seaward of the route at Sand Point	Waymarked route from (a) to (b) New access rights to seaward land.	The reef will be subject to new access rights. It is already possible to approach it from the existing path, but only by	No appreciable risk

		clambering over rocks. It is only visible for 2 hours maximum at the lowest tides.	
Biogenic Sabellaria reef seaward of the route at Birnbeck Pier	Waymarked route from (f) to (g) New access rights to seaward land.	The reef will be subject to new access rights. It is already possible to approach it from the existing path, but there is a wide belt of seaweed covered rocks and shingle that makes it difficult. Existing warning signs discourage access under the pier too.	No appreciable risk

Table 23: Possible risk - increased disturbance to feeding waterbirds by access users (St Thomas Head to Uphill Beach carpark)

Waterbirds typically feed on intertidal flats more than 200 metres from the upper foreshore where recreational activity is focussed. Sand Bay is divided into three sectors for recording purposes; here we consider them as a whole.

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Sand Bay (north/northwest): sectors BV649/650/651 Qualifying features: dunlin, redshank Other species cited as contributing to the assemblage: grey plover *Sand Bay (southwest): sector BV655* Qualifying features: shelduck	Waymarked route from (b) to (g) on map E New access rights to seaward land Promote north end of bay as waterbird refuge as indicated on map E. Notices at (c) and (e) to alert people to the likely presence of sensitive waterbirds and ask them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary.	Path users will be closer than 200 metres from the edge of feeding areas between (b) and (g) but almost always out of sight of feeding birds. Seaward of the path, recreational activity is focussed on the upper foreshore between (c) and (e). The foreshore from (f) to (g) is rocky and much more difficult to access because there is a road directly above it. Existing notices discourage access on the intertidal flats for safety reasons. Disturbance is uncommon for this reason, but may happen when feeding birds are pushed inshore by rising tides.	No significant increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.

		There is an informal path along the foot of Swallow Cliff from (c) that is closer to feeding areas. People following the waymarked route are unlikely to use it, but existing users sometimes disturb feeding birds by allowing their dogs to roam freely over the foreshore. Notices will discourage this.	
Weston Bay (west): sector BV656 Qualifying features: dunlin, redshank, shelduck	Waymarked route along the esplanade from Birnbeck Pier to Uphill beach New access rights to seaward land.	Path users will be more than 200 metres from feeding areas. Seaward of the path, recreational activity is focussed on the sandy upper foreshore. Existing notices discourage access on the intertidal flats for safety reasons. Disturbance is uncommon for this reason, but may happen occasionally when feeding birds are pushed inshore by rising tides.	No appreciable risk; significant change in levels and patterns of use.

Table 24: Possible risk: Increased disturbance to roosting waterbirds by access users (St Thomas Head to Uphill Beach carpark)

Sensitive feature	Relevant elements of the access proposals	Risk analysis	Conclusion
Roost 2A/B: Sand Bay (north) Qualifying features: ringed plover, dunlin, whimbrel, redshank, shelduck Other species cited as contributing to the assemblage: curlew, grey plover Other species that are part of the assemblage: little egret	Waymarked route from (c) to (e). New access rights to seaward land. Promote north end of bay as waterbird refuge as indicated on map E. Notices at (c) and (e) to alert people to the likely presence of sensitive waterbirds and ask them to take special care around high tide to keep their distance from waterbirds keep their dogs with them, using a lead if necessary.	Path users are screened by vegetation and topography and not visible to birds. There is an informal path along the foot of Swallow Cliff from (c) that is closer to the roosts. People following the waymarked route are unlikely to use it. Roosting birds are not normally disturbed by people using the Swallow Cliff path, but sometimes move off 2B if dogs are roaming freely in that area. Notices will encourage people to avoid this.	No significant increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.
Roost 2C: Sand Bay (south) Qualifying features: shelduck	Waymarked route from (e) to (g). New access rights to seaward land.	Path users will be about 200 metres from roost 2C on spring tides. From (e) to (f) they are screened by dunes. From (f) to (g) they are screened by the road and woodland vegetation.	No appreciable change in the frequency of disturbance. Possible reduction as some existing users will modify behaviour in response signs at the north end of the bay.

		There is evidence that roosting shelduck are disturbed by people on the beach in particular by dogs roaming freely on the foreshore. People following the waymarked route are less likely to do this than regular local visitors. Shelduck continue to use the roost regularly. When disturbed they may move to open water nearby. Effect is therefore not considered significant.	

D3.2F Uphill Beach Carpark to Brean Down Fort (Map F)

XVI) Baseline situation

Existing recreational use

XVI.i. This part of the coast is shown on map F. It consists of the tidal section of the River Axe, with Brean beach and Brean Down to the west. Existing open-air recreation is focussed around Uphill, the nature reserve at Bleadon Levels, the beach resort of Brean, and the National Trust property at Brean Down.

XVI.ii. A part of the England Coast Path, shown in red on Map F, is already open. It begins at Brean Down Fort, just off the top left corner of the map, and heads south along the beach past Brean towards Minehead. There is also a recently-opened and popular cycle route from Weston-super-Mare to Brean passing through Uphill, along the river Axe to Brean Cross sluice and thence along the orange route on map F to the beach at Brean.

XVI.iii. Uphill, towards the top right corner of the map, is a suburb of Weston-super-Mare. There is a campsite, some guesthouses and some visitor facilities. It is a well-known and popular place to walk (especially among local dog walkers), cycle and use the beach. There is a yacht club on the beach and a marina on Uphill Creek. There are also a number of circular walks from Uphill along the creek and the main River Axe. Uphill Cliff and Walborough Hill are nearby nature reserves with public access arrangements. Uphill Cliffs is also a popular climbing site, but access to the climbing areas is restricted.

XVI.iv. The Bleadon Levels nature reserve, upriver towards the sluice, has a carpark and bird hides and is also a popular starting point for circular walks. The riverbank alongside the sewage works between (f) and (g) was formerly used in this way but signs and fences have now been put up to discourage it.

XVI.v. The west bank of the Axe is not open to the general public, except for the public footpath at the mouth of the river between (i) and the disused ferry point (h). This is rarely used except by birdwatchers. People staying at a nearby caravan site are permitted to walk to Hook Pill, but in practice rarely go there except when a clay pigeon shoot is organised by the site owner. There is another caravan site at the sluice, but there are no existing access arrangements from there to the riverbank north of the sluice.

XVI.vi. Brean, in the bottom left corner of map F, is a substantial beach resort with a temporary population of fifty thousand at peak times in the summer months. At the north end of the beach there are cafes and carparks at the foot of Brean Down, a National Trust property well-known for walking and climbing. It has open access rights, but the majority of walkers follow an established circular route from the carparks along the England Coast Path (in red) to the west tip of the promontory and back along the military road (in blue). Brean Down is a popular destination for climbers, especially the north side of the down.

Existing physical damage to sensitive habitats

XVI.vii. The location of sensitive habitats on this part of the estuary is shown on map I.

XVI.viii. There is extensive saltmarsh along both banks of the Axe. There is an informal path along the edge of the saltmarsh on the east bank between the old ferry point at (b) and the mouth of Uphill Creek (c). There is also a public footpath along the saltmarsh on the east bank of XVI.ix. Uphill creek between (d) and (e). From (e), there is a disused flood embankment which runs along the river's edge towards Brean Cross sluice; again there is an informal pathway here, which is probably used by anglers, but it is on the embankment not the saltmarsh.

XVI.x. There is no visible wear on the saltmarsh on the west bank of the river, except at (i) where an informal path runs across the northern edge of the saltmarsh to the shoreline; this is used by climbers and anglers seeking access to the north shore of Brean Down.

XVI.xi. The limestone grassland at Uphill Cliff is partly subject to statutory open access rights – the exception being the disused quarry at Uphill Cliff (which is fenced for safety reasons) and Walborough Hill. The grassland at Walborough Hill is eroded along the route of the public footpath shown as a green dotted line on the map. This path was highlighted as a concern because there are steep slopes, and badger diggings which are undermining the path.

XVI.xii. There are worn paths on Brean Down corresponding to the public footpath followed by the England Coast Path (in red) and paths linking it to the old military road on the north side of the down (in blue) with which it forms a popular circular walk to Brean Down Fort. Footpath erosion on Brean Down has been monitored since 1996 and is regarded as stable over that period [Ref. 17]. This is borne out by aerial photography over a similar period.

Existing disturbance to feeding waterbirds by access users

XVI.xiii. Waterbirds, in particular redshank, feed on the Axe in significant numbers between mid-July and mid-April. They may be disturbed by people walking along the edge of Uphill creek between (c) and (e), but are more frequently displaced by dogs roaming freely over the foreshore of the main channel between (b) and (c).

XVI.xiv. The official paths between (e) and (g) are set back from the main river channel and disused flood embankment on a more recent, replacement flood embankment; path users are therefore screened from the river and do not disturb feeding birds. The disused embankment is breached, so cannot readily be incorporated into a walk but is sometimes used by anglers. There is also disturbance from people on boats.

XVI.xv. There is a screen at (g) across Brean Cross sluice which allows walkers and cyclists to cross the sluice and observe feeding waterbirds without disturbing them.

XVI.xvi. There is no general access between (g) and (h) and disturbance is minimal, although the land owner reports occasional trespass. The public footpath from (h) to (i) is infrequently used and set back from feeding areas, which are largely hidden from the path in the channels or behind saltmarsh vegetation. Towards (h) it runs close to the main channel and there is more scope for disturbance but no records of it taking place.

XVI.xvii. The main bay to the north of the river mouth is also important for feeding waterbirds. Disturbance from land-based activity is less likely here because most feeding areas are more than 200 metres from the upper foreshore where recreation takes place.

Existing disturbance to roosting waterbirds by access users

XVI.xiii. Overall existing disturbance to roosting waterbirds from recreation is less frequent here than on most other parts of the site because general access is so restricted. The following are roosts which were identified by Latham as important or which we treat as important on the basis of other evidence:

- Brean Down Farm (roosts 1B, 1C and 1D) on the saltmarsh on the west side of the river mouth
- Slimridge Farm/Uphill Beach (roost 1E)
- Saltmarsh between Uphill Marina and Walborough Hill
- River Axe west (roost 1F), a long narrow belt of saltmarsh on the west bank of the Axe
- Bleadon Levels pool and reedbed (roost 1H)

XVI.xiv. The public footpath from (i) to (h) is within 200 metres of the Brean Down Farm roosts 1B, 1C and 1D, but it is infrequently used and partially screened from roosting birds by saltmarsh vegetation. Climbers and anglers walking along the north edge of the saltmarsh are less likely to disturb roosting birds because they tend to time their visits to avoid high tide. There is no evidence that people on the other side of the river disturb roosting birds, even though they are within 200 metres of 1D. This is consistent with other places on the Severn where roosts are separated from walkers by creeks or pills. Water-based recreation is considered the more significant cause of disturbance. If displaced, birds move upriver, typically to roost 1F [Ref. 21, p.24].

XVI.xv. Birds roosting on Uphill Beach (1E) may be displaced by beach activity, in particular if people let their dogs roam freely over the beach.

Roost 1F is the least disturbed of the foreshore roosts: it is vulnerable to disturbance by boat movements but there is very little land-based activity on the west bank and the main paths on the opposite side of the river are set well away from the bank.

XVI.xvi. There is some disturbance to roost 1H from vehicles entering and leaving the sewage works but not from recreational activity.

XVI.xvii. The saltmarsh at Walborough is likely to be subject to some disturbance because it is surrounded by public paths. However, it is fenced from public areas and screened from the main path (shown in blue).

Existing disturbance to bats by access users

XVI.xviii. At Uphill Cliff there are small caves that could be used by bats as roost sites, but no use has been confirmed [Ref. 55]. They are all within a fenced area with very restricted access for the general public so disturbance risk is very low.

XVI.xix. A bat survey at Brean Down in 2016 confirmed two roost sites for greater horseshoe bat at Brean Down and noted the potential for disturbance by recreational users to the site near Brean Down Fort [Ref. 4]. Both sites can be found by people exploring the Down but the frequency of disturbance is considered very low because of their location and aspect. It is considered impractical to protect the entrances with grilles in these particular locations.

XVII) Summary of the access proposal

XVII.i. The coast path will follow existing walked routes broadly parallel to the River Axe from Uphill Beach carpark (a) to Brean Cross sluice (g). There would be waymarks along this section of the route to help people follow the coast path easily and some new gates in places to facilitate access.

XVII.ii. At (a), (b), (c), (e) and (f) there would be signs to draw attention to the sensitivity of waterbirds and encourage people to adopt appropriate behaviour.

XVII.iii. From Brean Cross sluice (g) to the old ferry point (h) the coast path would follow a new route along the west bank of the Axe shown in a dashed blue line. New waymarks and gates would be installed to facilitate access along this part of the route. This new section of path would only be available from 16th April to 15th July, as indicated on map F, to prevent increased disturbance to waterbirds, in particular redshank, that roost there at other times of year. A representative of the Ramblers will unlock the gates on 15th April (pm) and lock them on 16th July (pm)

XVII.iv. Alternative routes, following existing paths shown in orange on map F, would be available all year round. There would be prominent signs at (g), (h), (i), (j), (k) and (l) to direct walkers along the most appropriate route and publicise availability of new riverbank route (g) to (h).

XVII.v. From the old ferry point to Brean Down Fort the coast path would follow existing public footpaths shown in blue. It would be waymarked to direct walkers.

XVII.vi. Land seaward of the coast path would be coastal margin, but:

- Any land covered by buildings or the curtilage of buildings would be excepted from access rights, including the yacht club and marina.
- Access rights to the intertidal flats and saltmarsh along the River Axe would be excluded to the extent shown on map F. We will ask the British Mountaineering Council (BMC) to publicise the exclusion to climbers seeking access to the north shore of Brean Down.
- Access rights to the main bay at Weston would not be excluded, but warning signs and lifeguards would continue to discourage people from venturing on to the soft mud and sand beyond the beaches.

XVII.vii. Additional mitigation will be required for nature conservation purposes, as described in section XVIII below and indicated on maps D1 and D2.

Predicted change in use of the site for recreation

XVII.viii. We expect an increase in use of the proposed route arising from its association with the England Coast Path, because it is not yet promoted as a long-distance walking route and is easily accessible by rail and road. Most additional visits will be long-distance walkers or day walkers who are not familiar with the area because the coast is already accessible to the public and well known to local people, with the exception described next.

XVII.ix. The west bank of the Axe between Brean Cross sluice (g) and the old ferry point (h) will receive a more significant increase in use, because part of it would be subject to access rights for the first time and the other part (the footpath to the old ferry point) would become a through route for the first time since the ferry ceased operating. Use of the new path section will be restricted to the 3 months between mid-April and mid-July as part of the access proposal described above. This will also avoid any significant increase in use of the west bank as a whole when the new path is closed, because walkers would be directed along the alternative routes shown in orange on map F instead.

XVII.x. People on a planned walk are unlikely to be stray far from the coast path or to allow their dogs to roam over the foreshore. A small proportion of additional visits may be people on shorter walks who are more likely to leave the path, in particular to explore:

- established circular routes around Uphill Creek and Bleadon Levels.
- features of interest on Brean Down that are not on the established circular route.

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

Table 25: Possible risk - physical damage to sensitive habitats by access users (Uphill Beach Carpark to Brean Down Fort)

The location of sensitive habitats on this part of the estuary is shown on map I. The route itself is not aligned on any areas of sensitive habitat. The main concern addressed below is whether additional visitors following the England Coast Path will be attracted to leave it, so increasing the risk of damage in sensitive areas.

Feature	Relevant features of the access proposals	Risk analysis	Conclusion
Saltmarsh from (b) to (f)	Waymarked route from (b) to (f). New access rights to saltmarsh seaward of the route. Some saltmarsh to be promoted as a waterbird refuge, as indicated on map F.	Existing users generally stick to official paths. New users following the waymarked route are unlikely to leave it, because there is no obvious attraction to doing so.	No appreciable effects
Saltmarsh from (f) to (g)	Waymarked route from (f) to (g). Access rights to saltmarsh seaward of the route excluded.	The route is separated from the saltmarsh by the water treatment works. There are already signs and barriers to discourage access there. People following the waymarked route will not wish to trespass.	No appreciable effects.
Saltmarsh from (g) to (i)	Waymarked route from (g) to (i).	The path from (g) to (h) will only be open for 3 months each year.	No appreciable effects.

	Access rights to saltmarsh seaward of the route excluded as indicated on map F.	People are unlikely to leave the path from (h) to (i) because there is a steep drop and the saltmarsh is hazardous to walk on.	
Limestone grassland on Walborough Hill	Waymarked route from (d) to (e). New access rights to the grassland seaward of the route. Notice at (e) to explain sensitivity of grassland to erosion.	There are existing concerns about erosion here. The new route will avoid the sensitive area and people following it are unlikely to wish to leave it. The notice will encourage them to avoid it.	No significant increase in use of the sensitive area.
Limestone grassland on Brean Down	Waymarked route along existing surfaced tracks from (j) to Brean Down Fort. Surface improvements to the track. Method statements prepared by the National Trust wiith agreement from Natural England will specify access route for the contractor and working methods that avoid unintentional damage to surrounding grassland.	There are existing access rights to the grassland at Brean Down and no significant concerns about erosion risk. Most new users will follow the waymarked route. Numbers leaving it will be low and dispersed. Repairs can be carried out without causing damage to the surrounding grassland.	No significant increase in use of the sensitive area.

Table 26: Possible risk: Increased disturbance to feeding waterbirds by access users (Uphill Beach Carpark to Brean Down Fort)

Concerns arise from access along the east bank and the west bank; these are considered separately in the table below. The feeding area includes two WeBs sectors – our analysis considers them as a whole.

The main concern is in relation to new access along the west bank of the River Axe, which needs to be carefully designed to avoid increased disturbance to waterbirds feeding in the main river channel and adjacent saltmarsh and creeks. The most sensitive time of year is from mid-July to mid-April, when redshank are recorded in significant numbers on this part of the Severn estuary.

Feature	Relevant features of the access proposals	Risk analysis	Conclusion
River Axe (north) and Weston Bay (south) - sector BV658 Qualifying features: redshank, shelduck, teal, lapwing Other species cited as contributing to the assemblage: curlew, wigeon *River Axe - sector BV660* Qualifying features: redshank, golden plover, lapwing Other species that are part of the assemblage: snipe	<u>East bank access</u> Waymarked route between (a) and (g) Access rights to the river channel excluded as shown on map F. Access rights to the embankment between (f) and (g) excluded. New access rights to remaining land between the route and the river channel. Promote areas of the east bank as waterbird refuges, as indicated on map F. Notices at (a), (b), (c), (e) and (f) to explain the sensitivities and ask people to	<u>East bank access</u> Path is within 200 metres of feeding habitat and visible to feeding birds from (a) to (d). Local people exercise their dogs on the foreshore here. This can cause feeding birds to move elsewhere. Most new users will be on a planned walk and less likely to exercise their dogs here, but it cannot be ruled out completely. Soft mud will be excluded to the extent shown on map F. Existing signs explain that access there is dangerous.	<u>East bank access</u> No appreciable increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.

Feature	Relevant features of the access proposals	Risk analysis	Conclusion
	stick to the path and keep dogs with them on the path using a lead if necessary.	There will be new access rights to land adjoining the river channel. Local people already visit this land in small numbers. Most new users will be on a planned walk and less likely to explore it. Notices will encourage people to avoid it.	
	<u>West bank access</u> Waymarked route from (g) to (i). Soft mud and fringing saltmarsh will be excluded to the extent shown on map F. Notices at (g) and (i) to promote the west bank as a waterbird refuge. Route and adjoining riverbank from (g) to (h) open from 16th April to 15th July only. Ramblers representative to unlock gates at (g) and (h) on 15th April (pm) and lock them on 16th July (am). Alternative routes shown in orange from (g) to (l) and from (j) to (k) available all year.	<u>West bank access</u> Path is within 200 metres of feeding habitat and visible to feeding birds on from (g) to (i). The path from (g) to (h) will only be open from 16 April to 15 July and people will be directed along alternative routes at other times. People are unlikely to leave the path from (h) to (i) because there is a steep drop and the saltmarsh is hazardous to walk on. Existing users will be made aware of the sensitivities.	<u>West bank access</u> No appreciable risk of increased disturbance on west bank during the most sensitive period from 16 July to 15 April each year. Residual risk of increased disturbance between 16 April and 15 July, when there are very few waterbirds feeding on the river. Small reduction in disturbance from people seeking to access the north shore of Brean Down via (i).

Feature	Relevant features of the access proposals	Risk analysis	Conclusion
	Signposts at (g), (h), (i), (j), (k) and (l) to direct walkers along available routes and publicise route closure from (g) to (h). New 'wing' fence and gate at (h) to discourage onward access along the riverbank towards (g) when that part of the route is closed. British Mountaineering Council (BMC) to publicise the exclusion to climbers seeking access from (i) to the north shore of Brean Down.		

Table 27: Possible risk - increased disturbance to roosting waterbirds by access users (Uphill Beach Carpark to Brean Down Fort)

The main concern is in relation to the west bank of the River Axe where new access arrangements need to be carefully designed to avoid increased disturbance to waterbirds roosting along the bank. The most sensitive time of year is from mid-July to mid-April, when redshank are recorded in significant numbers on this part of the Severn estuary.

Whilst roosting birds tend to congregate in places on the west bank, disturbance is possible from people on both the east and the west bank in some places. These risks are considered separately in the table below, in places where they apply.

Feature	Relevant features of the access proposals	Risk analysis	Conclusion
Roost 1E: Slimeridge Farm Qualifying features: ringed plover	Waymarked route between (a) and (b). New access rights between path and mean low water, except where excluded as shown on map F. Notice on the path at (a), explaining sensitivity of roosting birds to disturbance and asking people to avoid exercising dogs on the beach at high tide during key periods.	Path users will be within 200 metres of the roost and visible to roosting birds. The roost will be subject to new access rights, but there are existing signs warning people not to walk there. When roosting, ringed plover generally tolerate people walking along the proposed route. Existing users exercise their dogs on the beach. This often causes waterbirds to leave the roost.	No appreciable increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.

		Most new users will be on a planned walk and less likely to exercise their dogs here, but it cannot be ruled out completely.	
Roost 1B: Brean Down Farm saltmarsh (north) Qualifying features: shelduck, teal, lapwing Species cited as contributing to the assemblage: curlew *Roost 1C: Brean Down Farm saltmarsh (central)* Qualifying features: redshank, dunlin, shelduck	<u>East bank access</u> Waymarked route between (a) and (c). Access rights to soft mud and fringing saltmarsh excluded to the extent shown on map F. Elsewhere, new access rights seaward of the path. Notices on the path at (b) and (c), explaining the sensitivity and asking people to keep to the path in those places and keep their dogs with them, using a lead if necessary.	<u>East bank access</u> Path users around (b) will be less than 200 metres from roost 1D and visible to roosting birds. Roosting birds may become more alert when walkers are present, but are unlikely to leave the roost unless dogs are allowed to roam freely on the foreshore. Notices will encourage appropriate behaviour.	<u>East bank access</u> No appreciable increase in disturbance: many new users will follow the path without causing disturbance; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.
Roost 1D: Brean Down Farm saltmarsh (south) Qualifying features: redshank, dunlin Other species that are part of the assemblage: mallard	<u>West bank access</u> Waymarked route from (g) to (i). Soft mud and fringing saltmarsh excluded to the extent shown on map F. Promote the excluded area as a waterbird refuge. Notice at (i) explaining the sensitivity and asking people to keep to the path in	<u>West bank access</u> Path users between (h) and (i) will pass within 200 metres of all three roosts. They will be screened to an extent by saltmarsh vegetation. Increase in use likely from 16 April to 15 July when new path from (g) to (h) is open. This period is the least sensitive for	<u>West bank access</u> No increased risk of disturbance during most sensitive period. Disturbance to 1B may reduce slightly as climbers select a different route to the north shore.

	those places and keep their dogs with them, using a lead if necessary. British Mountaineering Council (BMC) to publicise the exclusion to climbers seeking access from (i) to the north shore of Brean Down.	roosting waterbirds, because most have left the estuary to breed. Coast path users will be directed elsewhere at more sensitive times. Access rights to seaward margin will be excluded. Approaching 1C and 1D from the path is difficult because of the terrain. It is not an attractive place to allow dogs to roam freely. The informal path along the north edge of the saltmarsh at (i) passes close to 1B. This is used by climbers and anglers. BMC will discourage climbers from using it.	
Roost 1F: River Axe (west) Qualifying features: redshank	<u>East bank access</u> Waymarked route between (c) and (g). Access rights to soft mud and fringing saltmarsh excluded to the extent shown on map F. Access rights to the embankment between (f) and (g) excluded. Elsewhere, new access rights seaward of the path. Promote areas of the east bank as waterbird refuges, as indicated on map F.	<u>East bank access</u> There is no appreciable risk to roosting birds from path users, but birds at roost 1F could be disturbed by people leaving the path or letting their dogs do so. Notices will promote the refuge areas and statutory exclusions and encourage appropriate behaviour.	<u>East bank access</u> No appreciable increase in disturbance: many new users will not leave the path; some will read the information and consciously adopt the required behaviour. Long-term reduction in disturbance: some existing users will modify behaviour in response to the new information.

	Notices on the path at (e) and (f) explaining the sensitivity and asking people to keep to the path in those places and keep their dogs with them, using a lead if necessary.		
	<u>West bank access</u> Waymarked route from (g) to (i). Access rights to soft mud and fringing saltmarsh excluded to the extent shown on map F. Notices at (g) and (i) to promote excluded area as waterbird refuge. Route and adjoining riverbank from (g) to (h) open from 16th April to 15th July only. Ramblers representative to unlock gates at (g) and (h) on 15th April (pm) and lock them on 16th July (am). Alternative routes shown in orange from (g) to (l) and from (j) to (k) available all year. Signposts at (g), (h), (i), (j), (k) and (l) to direct walkers along available routes and publicise route closure from (g) to (h).	<u>West bank access</u> Path users between (g) and (h) will pass within 200 metres of the roost and be visible to birds. Increase in use likely from 16 April to 15 July when new path from (g) to (h) is open. This period is the least sensitive for roosting waterbirds, because most have left the estuary to breed. Coast path users will be directed elsewhere at more sensitive times. There are measures to discourage trespass between (g) and (h) at these times.	<u>West bank access</u> No increased risk of disturbance to 1F during sensitive period. No appreciable risk of trespass between (g) and (h).

	New 'wing' fence and gate at (h) to discourage onward access along the riverbank towards (g) when that part of the route is closed.		
Roost 1H: Bleadon Levels pool and reedbed Species cited as contributing to the assemblage do not occur in significant numbers. Other species that are part of the assemblage: snipe	Waymarked route from (f) to (g). Access rights between them excluded as shown on map F. Promote 1H as a waterbird refuge. Notice at (f) to explain this.	Path is screened from the roost by vegetation. 1H would form part of the coastal margin, but there are barriers to access around the roost and access along the bank is prohibited.	No appreciable risk
Walborough saltmarsh [refuge area seaward of route from (d) to (e)] Qualifying features: redshank, dunlin, shelduck Other species that are part of the assemblage: black-tailed godwit	Waymarked route from (d) to (e). Promote roost as a waterbird refuge. Notice at (e) to explain this.	Route is screened from the roost by vegetation. Roost would form part of the coastal margin, but there is a fence around it to discourage access. Notice will reinforce this.	No appreciable risk

Table 28: Possible risk - increased disturbance to roosting greater horseshoe bats by access users (Uphill Beach Carpark to Brean Down Fort)

Feature	Relevant features of the access proposals	Risk analysis	Conclusion
Potential roost sites at Uphill Cliffs	Waymarked route from (d) to (e)	Potential roost sites are very small caves near the route. They are difficult to enter because of their size. These are part of an area where access is already carefully controlled for public safety reasons. The area would not be subject to new access rights.	No scope for interaction with access users.
Roost site at Brean Down Fort	Waymarked route from (i) to Brean Down Fort	Both caves used as roost sites are already subject to access rights but disturbance risk is considered low because of location and aspect. Grilles have been used effectively at mine entrances to reduce disturbance but it is not possible to install them at these locations because of the difficulty of access and the shape of the cave entrances.	No appreciable increase in current low risk of disturbance provided that roost sites are not publicised.

D3.3 Assessment of potentially adverse effects (taking account of any additional mitigation measures incorporated into the design of the access proposal) alone

Table 29. Assessment of adverse effect on site integrity 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?
More frequent trampling in areas of intertidal reef, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	Route avoids proximity to known areas of intertidal reef, saltmarsh and limestone grassland, or follows existing paths across these areas that are part of the site fabric. Access rights over many areas of reef are excluded.	Yes Reefs are only visible for a few hours on the lowest spring tides each month. They are difficult, and in some places dangerous to access.	No
More frequent trampling in areas saltmarsh, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	Route chosen to avoid saltmarsh. A new path at Sand Bay avoiding saltmarsh will reduce damage to saltmarsh along the existing path. Access rights over many areas of lower saltmarsh are excluded. Existing wear to saltmarsh is reduced in places, by choosing a more landward route that allows damaged habitat to recover. Notices will discourage use of secondary paths across saltmarsh in places, in order to reduce disturbance to roosting or feeding waterbirds.	Yes The route avoids saltmarsh almost entirely and associated measures will reduce existing, localised wear along some paths that already cross it.	No
More frequent trampling in areas of limestone grassland, following	Route follows existing surfaced paths across limestone grassland that are part of the site fabric.	Yes. Both areas of limestone grassland are already accessible by right and popular destinations. The vast majority of visitors	No

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?
changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	Route avoids other existing paths that are considered vulnerable to erosion.	follow the surfaced paths we have chosen. These avoid areas of sensitivity. Footpath erosion at Brean Down has remained stable in the previous twenty years despite increases in recreational use that are much greater than expected to arise from this project.	
Damage to saltmarsh during path establishment work leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	The route avoids saltmarsh. Notices will be mounted on new posts erected at the edge of upper saltmarsh and 6 locations. New post holes will be hand dug and turf replaced afterwards.	Yes Damage is limited to the locations of six new postholes. At each location an area of approximately 0.1 square metre of saltmarsh will be lost. This is less than 0.01% of the total area of saltmarsh habitat on the site.	Yes
Damage to limestone grassland during path establishment work leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.	Route follows existing paths across limestone grassland that are part of the site fabric. Repairs to an existing surfaced track will make it more attractive to walk on. Method statements prepared by the National Trust wiith agreement from Natural England will specify access route for the contractor and working methods that avoid unintentional damage to surrounding grassland.	Yes It is possible to access the work site and carry out works without causing damage to the surrounding grassland habitat.	No
More frequent disturbance to feeding or roosting waterbirds (non-breeding), following changes in recreational activities as a result	Clearly waymarked and enjoyable route throughout A suite of attractive notices to stimulate interest in waterbirds and encourage responsible behaviour Position the route out of sight of some roost sites, or use screens	Yes There is to some extent natural segregation between recreational activity and non-breeding waterbirds, which often forage on intertidal flats that are unsuitable for walking over. Coastal access rights will be excluded from these area, thus formally clarifying the legal position on public access.	Yes

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?
of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.	with viewpoints to keep path users out of sight Extensive exclusions to intertidal flats and lower saltmarsh where many waterbirds feed. Promote a network of refuge sites on higher ground where significant numbers of waterbirds gather to roost or feed.Restrict access to the trail on sections of new path that pass close to roosting and feeding areas. Use fences and notices to discourage people from leaving the path in some places Seasonal routes in some locations to avoid disturbance at more sensitive times of year. Require users to keep dogs on leads in some places to reduce disturbance risk.	Closer to the mean high water recreational activity is more common and there already is some interaction with waterbirds. Most common are minor behavioural responses - increased alertness; birds walk away; short flights - which are short-lived and localised. The access proposals will result in more of these in some places, but at low levels inconsequential to the fitness or distribution of non-breeding waterbird populations. Our proposals will promote a network of high tide roosts and in-shore feeding areas as refuges. In these places such disturbance will generally be avoided, or reduced from current levels. Attractive and distinctive notices will promote these refuges, explain the sensitivity of waterbirds to access users and encourage responsible behaviour in line with the Severn Estuary Code of Conduct. In particular they will encourage users to stick to the path in sensitive areas and keep their dogs with them, using a lead if necessary. This will help facilitate responsible use by people new to the site and reduce disturbance in the longer term as some existing users modify their behaviour in response to the new information. In parts of the site where there is very limited public access at present, or where it is absent altogether, we include additional measures to avoid increased disturbance, including the provision of alternative routes for people to follow at sensitive periods and physical barriers to discourage trespass. The environmental conditions of the Severn Estuary are dynamic and influenced by a number of human activities. It is possible there are other plans and projects currently in development that could, like our proposals for the coast path, cause low level disturbance. In order to ensure that the implementation of coastal access in this area complementary to other planned	

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?
		initiatives we have carried out a further in-combination assessment below.	
More frequent disturbance to juvenile shelduck, following changes in recreational activities as a result of the access proposal, leads to increased mortality and a resultant reduction in the non-breeding population within the site.	Ensure route around the Congresbury Yeo (map D1) is clearly waymarked and enjoyable. On the northwest bank, position route to be largely out of sight of feeding and loafing areas for juvenile shelduck. Require users to keep dogs on leads between (l) and (m) on map D2, to reduce disturbance risk. Operate an alternative route on the southwest bank to reduce disturbance at sensitive times of year. Install an attractive notice to stimulate interest in juvenile shelduck and encourage responsible behaviour. Access rights seaward of the route excluded.	Yes. Our proposals are designed to avoid disturbance risk on most parts of the tidal river. Where the risk is not eliminated, there are measures in place to reduce disturbance and encourage responsible access.	Yes
Disturbance to feeding or roosting waterbirds (non-breeding), during path establishment work, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.	Design access routes, storage areas and site facilities to minimise disturbance impacts. Conduct operations out of sight of roosting and feeding areas where possible. Local authority to plan schedule with Natural England to limit disturbance risk. Time operations during a period of low sensitivity at each construction site. Avoid use of percussive machinery outside this period wherever practicable. Use hand tools where practicable. At all other times, stop work around high tide to avoid disturbance to roost sites. Limit activities to daylight hours.	Yes Works will be carried out by local authority staff or approved contractors using method statements prepared by the local access authority based on the principles described in table 7 and agreed with Natural England before works commence. Natural England will monitor and, where necessary, supervise works to ensure that mitigation is implemented correctly.	No

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?
Disturbance to juvenile shelduck during path establishment work, leads to increased mortality and a resultant reduction in the non-breeding population within the site.	Design access routes, storage areas and site facilities to minimise disturbance impacts. Conduct operations out of sight of roosting and feeding areas where possible. Local authority to plan schedule with Natural England to limit disturbance risk. Time operations during a period of low sensitivity at each construction site. Avoid use of percussive machinery outside this period wherever practicable. Use hand tools where practicable. At all other times, stop work around high tide to avoid disturbance to roost sites. Limit activities to daylight hours.	Yes Works will be carried out by local authority staff or approved contractors using method statements prepared by the local access authority based on the principles described in table 7 and agreed with Natural England before works commence. Natural England will monitor and, where necessary, supervise works to ensure that mitigation is implemented correctly.	No
More frequent disturbance to roosting or hibernating bats, following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.	The route avoids close proximity to known roost sites. No new access rights are created in these areas.	Yes Unconfirmed roosts at Uphill Cliffs are secure and not accessible from the path Those at Brean Down can already be reached from the path but their location and aspect limits the risk of disturbance. The current low risk of disturbance to roosts will therefore be unchanged, provided that the location of the roosts remains unpublicised.	No

Conclusion:

The following risks to 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:

- More frequent trampling in areas of intertidal reef, saltmarsh or limestone grassland, following changes in recreational activities as a result of the access proposal, leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.
- Physical damage to limestone grassland during path establishment work leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.
- More frequent disturbance to feeding or roosting waterbirds (non-breeding) during path establishment work, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.
- Disturbance to juvenile shelduck during path establishment work, leads to increased mortality and a resultant reduction in the non-breeding population within the site.
- More frequent disturbance to roosting or hibernating bats, following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.

The following risks to 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:

- Physical damage to saltmarsh during path establishment work leads to a long term reduction in population and/or contraction in the distribution of Qualifying Features within the site.
- More frequent disturbance to feeding or roosting waterbirds (non-breeding) following changes in recreational activities as a result of the access proposal, leads to reduced fitness and reduction in population and/or contraction in the distribution of Qualifying Features within the site.
- More frequent disturbance to juvenile shelduck, following changes in recreational activities as a result of the access proposal, leads to increased mortality and a resultant reduction in the non-breeding population within the site.

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:

- Loss of 0.6 square metres of saltmarsh habitat, comprising smaller losses at 6 locations between Aust and Brean
- More frequent disturbance to roosting and feeding waterbirds from increases in recreational activity between Severn Bridge and New Passage (map A1)
- More frequent disturbance to feeding and roosting waterbirds (non-breeding) from increases in recreational activity at specific locations between Kingston Pill and Huckers Bow (maps D1 and D2)
- More frequent disturbance to juvenile shelduck from increases in recreational activity at the Congresbury yeo (map D2)
- More frequent disturbance to feeding and roosting waterbirds from increases in recreational activity along the west bank of the river Axe between mid April and mid July (map F)

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

Table 30: Other live plans or projects

Competent authority	Plan or Project	Have any insignificant and combinable effects been identified?
Environment Agency	Avonmouth Severnside Enterprise Area Ecology and Mitigation Flood Defence Scheme	**Yes.** The Appropriate Assessment for this project identifies a residual effect arising from the loss of 0.1 hectares of habitat due to the construction footprint immediately south of Stup Pill rhine outfall [Ref. 9]. This could combine with saltmarsh habitat loss arising from the access proposals.
Environment Agency	Severn Estuary Coastal Group Shoreline Management Plan (2017)	**No.** The Appropriate Assessment for the Severn Estuary Coastal Group Shoreline Management Plan [Ref. 48] concluded that the plan would have potentially adverse effects on the Severn Estuary SPA, SAC and Ramsar site. These were due to loss of intertidal habitat as a result of coastal squeeze, loss of terrestrial and freshwater habitats as a result of Managed Realignment, and changes to the shape of the estuary as a whole, which could affect the way it functions. Its conclusions

		regarding the significance of these effects was uncertain and it notes that more detailed assessment will be needed as part of the emerging Severn Estuary Flood Risk Management Strategy. There is therefore potential at this stage for insignificant effects from the Severn Estuary Shoreline Management Plan to combine with those of the England Coast Path. This may need to be considered further by the competent authority as part of the forthcoming review of the Shoreline Management Plan or detailed assessment of the Severn Estuary Flood Risk Management Strategy, depending on the Appropriate Assessment for those plans.
Environment Agency	Huckers Bow Tidal Outfall Replacement	**No.** The tidal outfall replacement project will be complete before works commence on the England Coast Path Project. The Appropriate Assessment for that plan did not identify any long-term residual effects that could act in combination with residual effects from the coast path.
Environment Agency	Flood defence maintenance operations	**Yes.** The programme and associated Habitats Regulations Assessment is renewed on an annual basis. The current Habitats Regulations Assessment identifies the potential for disturbance to non-breeding waterbirds as a result of maintenance operations, but at insignificant levels. We therefore assess below how this could act in combination with insignificant effects from the England Coast Path proposals. In subsequent years, it will be for Environment Agency in its Appropriate Assessment to assess how any residual effects arising from the maintenance programme could interact with residual effects arising from the England Coast Path.
National Grid	Hinkley C Connection Project	**No.** The appropriate assessment for this project identified a residual effect caused by waterbirds colliding with overhead power lines whilst moving between the Somerset Levels and Moors SPA and the Severn estuary SPA, which could not be entirely mitigated [Ref. 11]. The risk applies to waterbirds moving between the Levels and Moors and the Bridgwater Bay part of the Severn Estuary SPA, to the south of the stretch of coast which is subject to the coastal access proposals.
Natural England	Wildfowling on the River Axe (Bridgwater Bay Wildfowlers Association)	**No.** Bridgwater Bay Wildfowlers Association's licence is under review and the new licence will require a Habitats Regulations Assessment, but there is none available at present. There is currently no Habitats Regulations Assessment for the new licence period and there is therefore uncertainty at this stage about residual effects. From what we understand, the new licence will provide for a similar level of shooting activity as currently, but with enhanced mitigation to reduce residual effects.
Natural England	Wildfowling on Woodspring Bay (Clevedon Wildfowling Association)	**No.** Clevedon Wildfowlers Association's licence is under review and the new licence will require a Habitats Regulations Assessment, but there is none available at present. There is currently no Habitats Regulations Assessment for the new licence period and there is therefore uncertainty at this stage about residual effects. From what we understand, the new licence will provide for a similar level of shooting activity as currently, but with enhanced mitigation to reduce residual effects.

North Somerset Council	Clevedon to Weston Cycle Route (Tutshill crossing)	**Yes.** The Appropriate Assessment associated with this plan considered the potential for residual disturbance by cycle route users to act in combination with residual disturbance by coast path users [Ref.29]. It concluded that, on the basis of information available at the time, this possibility could be ruled out because the proposed mitigation for the cycle route would also reduce disturbance from coast path users. As a precaution therefore, we reconsider this conclusion below, in light of the more detailed information now available about the England Coast path proposals.
West of England Combined Authorities	Joint Spatial Plan 2018-2036	**No.** The Appropriate Assessment associated with the plan is at an interim stage. The most recent version [Ref. 53] considers the risk of further recreational pressures as a result of more people living within 7km of the coast. It includes in this risks of disturbance to non-breeding waterbirds and physical damage to sensitive habitats. It proposes a package of strategic mitigation solutions to be developed and implemented by the West Of England authorities over the planning period. The package is designed to avoid effects of increased visitors and urbanisation which arise from additional housing near a European site. On the proviso that this strategic approach to mitigation is implemented, the assessment concludes that the future allocation of new homes will not lead to an adverse effect on integrity, and no further insignificant effects are identified.

In light of this review, we have identified insignificant and combinable effects are likely to arise from the following projects that have the potential to act in-combination with the access proposals:

- Avonmouth Severnside Enterprise Area Ecology and Mitigation Flood Defence Scheme
- Clevedon to Weston Cycle Route (Tutshill crossing)

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, we have made an assessment of the risk of in combination effects. The results of this risk assessment, taking account of each qualifying feature of each site and in view of each site's Conservation Objectives, are set out below.

Table 31: Risk of in combination effects

Feature	Assessment of risk to site conservation objectives	Adverse effect in combination?
Saltmarsh	*In-combination pressure* Physical damage to saltmarsh associated with establishment of the England Coast Path could combine with physical damage caused by the Avonmouth Severnside Flood Defence and Ecology Mitigation Scheme (ASEA). *Assessment*	No

	The total area of saltmarsh on the site is estimated at 1400 hectares. Physical damage to saltmarsh associated with the ASEA project is estimated at 0.1 hectares. Physical damage to saltmarsh associated with the England Coast Path is estimated at 0.6 square metres (0.00006 hectares). The combined effect would be a loss of 0.07% of the total area of habitat. This is not considered significant.	
Waterbird assemblage, redshank, dunlin	*In-combination pressure* The risk of disturbance to waterbirds roosting and feeding between the Severn Bridge and New Pill Gout could be exacerbated by disturbance caused by people carrying out maintenance operations on the flood defence structures. *Assessment* Maintenance operations include grass cutting and weed control on the grass embankments between Old Passage and New Passage on map A1. Maintenance operations will not disturb birds roosting at high tide because they will be timed to avoid two hours either side of high tide. They could disturb feeding birds at other times, but only those feeding on the saltmarsh or in the creeks that are within 200 metres of where the work takes place. Operations will be between June and October when waterbirds are less likely to be present in significant numbers and are short duration and therefore, like path use, temporary in effect. This part of the estuary is characterised by extensive intertidal flats that provide alternative feeding grounds should displacement take place.	No
Waterbird assemblage, redshank, dunlin, shelduck, whimbrel	*In-combination pressure* The risk of disturbance to waterbirds roosting or feeding in the River Yeo could be exacerbated if the Clevedon to Weston Cycle Route attracted more people to use nearby parts of the coast path. *Assessment* The cycle route will attract more people to Tutshill than the coast path because (unlike the coast path) it is open to cyclists and it takes much less time to reach Tutshill by bike than on foot. Cyclists arriving at Tutshill could try to cycle along the coast path from Tutshill instead of using the cycle route. This is unlikely to happen regularly, because it is not suitable for cycling: the surface is unmade and uneven in places and there is a series of gates along the route. Cyclists will be able to see this at the junction of the two paths at Tutshill. North Somerset Council will install signs to advise cyclists that there are no cycle rights except on the marked cycle route. Cyclists could leave their bikes at the sluice and walk along the coast path. There will be no facilities for cyclists to lock their bikes securely at Tutshill so this will not happen regularly. The cycle route will also create a new point of access to the coast path at Tutshill, on the north side of the river at point (q) on map D2. This could attract more pedestrians to the coast path. There is no public parking at Tutshill; the nearest parking on the north side of the river is thirty minutes' walk away along public roads at Kingston Seymour. This is more	No

	than the hour typically allowed by people to walk their dog. Walkers generally avoid roads where they can. The roads between the village and the river are frequently used by farm traffic and there are places where it is difficult to step off the road to allow traffic to pass. Pedestrian use of this route will be very low for these reasons.	
Redshank, shelduck	*In-combination pressure* The risk of disturbance to redshank and shelduck feeding in the River Yeo, near the Tutshill crossing could be exacerbated by more frequent use of the sluice crossing by users of the Clevedon to Weston Cycle Route *Assessment* The route proposed for the England Coast Path and the route proposed for the Clevedon to Weston Cycle route coincide for approximately 400 metres at Tutshill, where there are two sluices controlling waterflow between tidal and non-tidal sections of the river Yeo and a tributary. The shared part of the routes is more than 200 metres from the nearest high-tide roost, so there is no appreciable risk of disturbance to roosting waterbirds from users of the shared part. Redshank feed regularly in the creek between the sluices at Tutshill, much closer to the shared part of the route, and could therefore be disturbed by users of both routes. Shelduck, including juvenile birds, are less frequently recorded at this location, but disturbance cannot be ruled out. The cycle route project, should it proceed, will incorporate a screen between the two sluices at Tutshill, with observation slots for people to observe feeding birds. This will greatly reduce the risk of disturbance to waterbirds from both cyclists and walkers on that part of the route. The residual risk of noise disturbance is not significant, because the noises made by path users will not normally be intrusive and, on the rare occasions when they are, any disturbance effect will be temporary.	No
Redshank, shelduck	*In-combination pressure* The risk of disturbance to redshank feeding in the River Yeo near the Tutshill crossing could be exacerbated if it coincides with the period when works are taking place to establish the Clevedon to Weston cycle route. *Assessment* Construction of the screen is planned for the period between Mid-April and mid-July, when redshank are not present on the site in significant numbers. The scope for any in combination pressure is therefore minimal. Shelduck crèche on the river Yeo from late June onwards. They are not known to frequent this part of the river, but there is a possibility that works in this location at that time could disturb them. There is a corresponding risk of disturbance from coast path users in the same area, and on the north bank between (l) and (m) on map D2, and on the southwest bank at the river mouth. There is unlikely to be disturbance anywhere else on the river from either source, because path users and will not be visible to the birds. Such disturbance as occurs would be restricted to daylight hours and other parts of the river will be available as refuges.	No

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 2017 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 the Severn Estuary SAC, SPA and Ramsar site 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 2017.

We, Natural England, are satisfied that our proposals to improve access to the English coast between Aust and Brean Down are fully compatible with the relevant European site conservation objectives.

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 2017 may be needed before approval is given.

Certification

Assessment prepared and completed by:	Andrew Chester	*On behalf of the Coastal Access Programme Team*
Date	7 June 2019	
HRA approved:	Claire Newill	*Senior Area Team officer with responsibility for protected sites*
Date	27 June 2019	

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Maps

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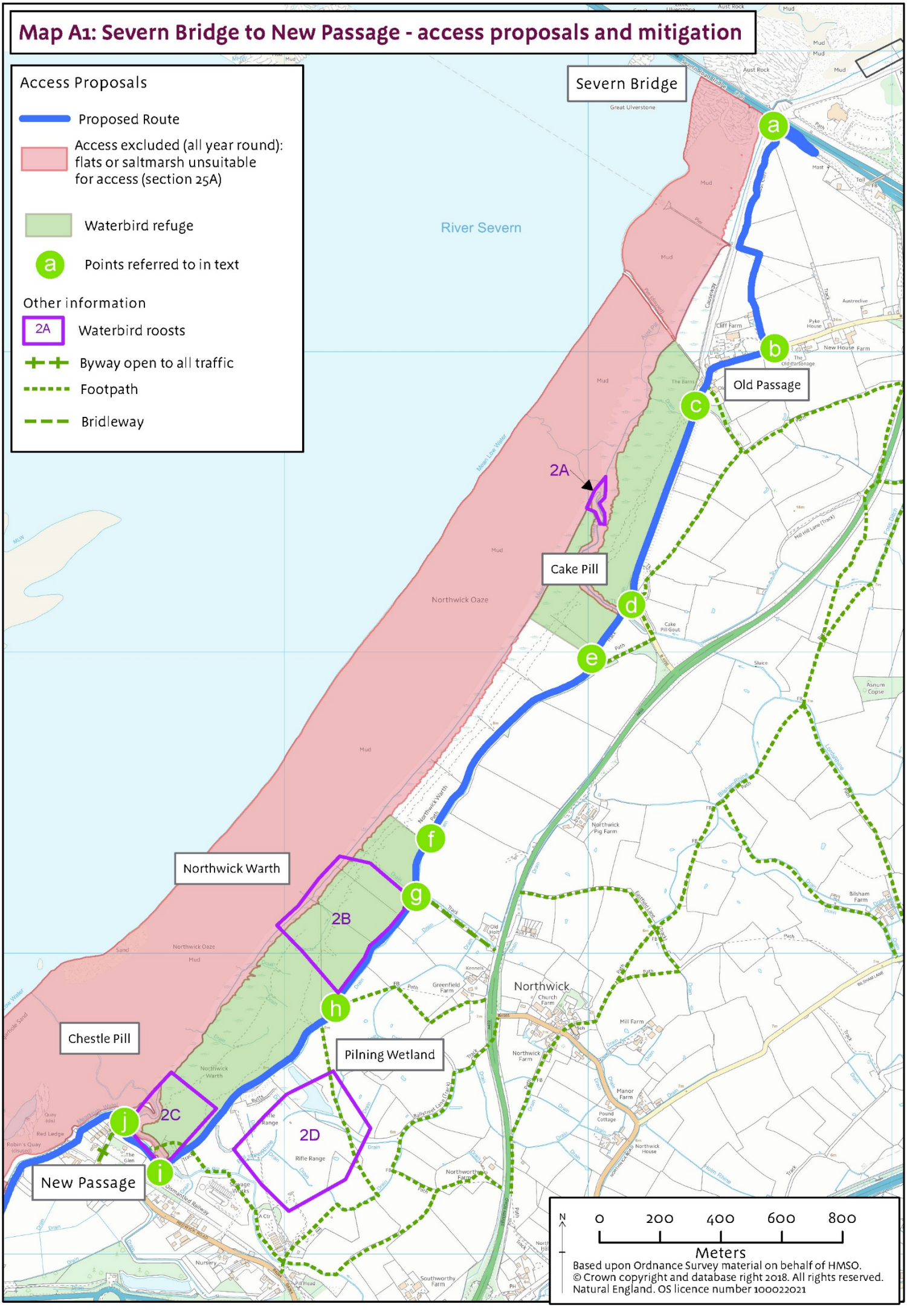
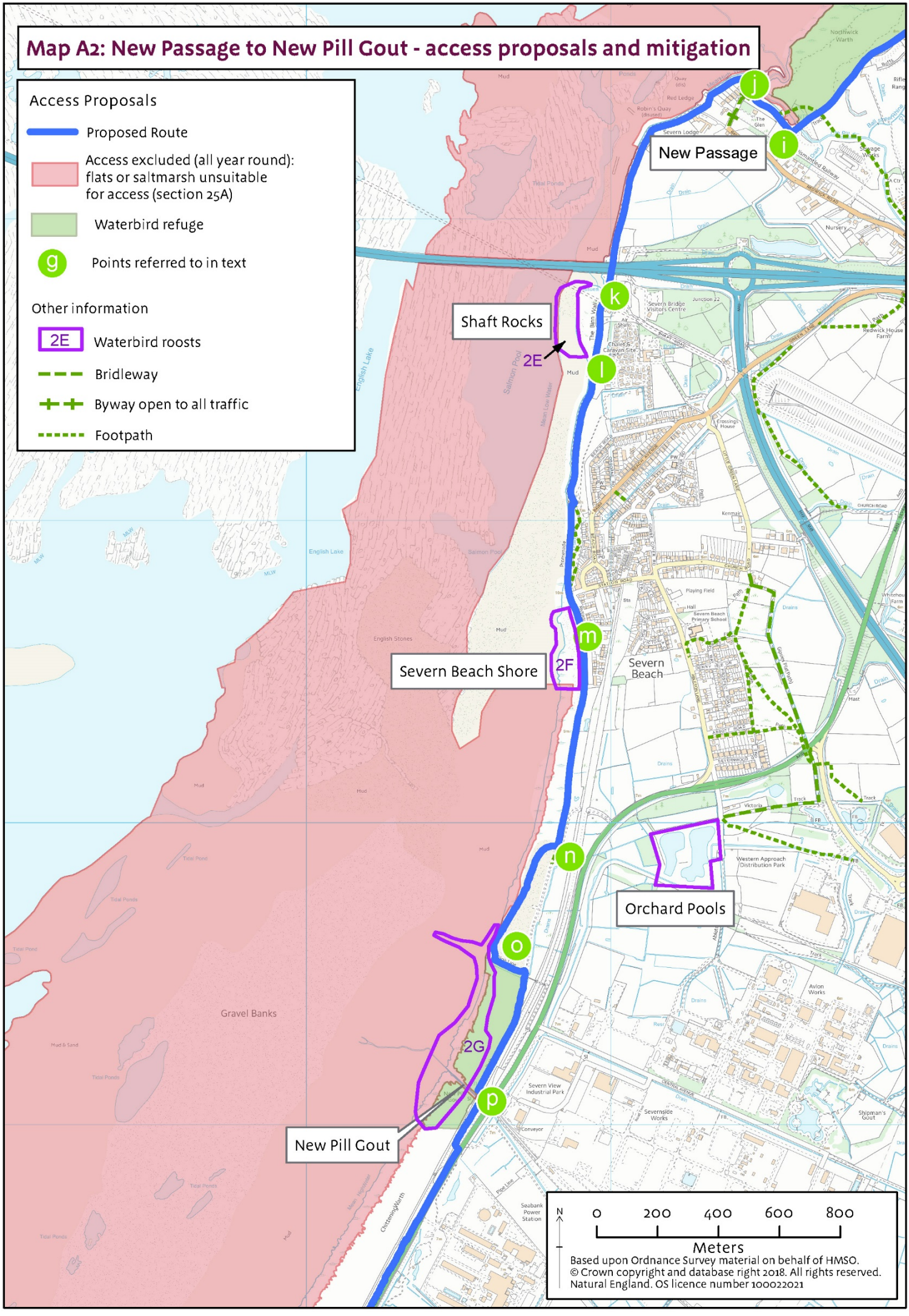
Map A1: Severn Bridge to New Passage - access proposals and mitigation




Map A2: New Passage to New Pill Gout - access proposals and mitigation
Access Proposals
Proposed Route
Access excluded (all year round): flats or saltmarsh unsuitable for access (section 25A)
Waterbird refuge
g
Points referred to in text
Other information
2E
Waterbird roosts
Bridleway
Byway open to all traffic
Footpath
New Passage
Shaft Rocks
2E
Severn Beach Shore
2F
Severn Beach
Orchard Pools
2G
New Pill Gout
Gravel Banks
English Lake
Salmon Pool
English Stones
Mud
Tidal Ponds
Tidal Pond
Mud & Sand
Severn Bridge Visitors Centre
Junction 22
Severn Lodge
Severn Beach Primary School
Playing Field
Western Approach Distribution Park
Avon Works
Severn View Industrial Park
Severnside Works
Seabank Power Station
Shipman's Gout
Redwick House Farm
Kenmar
Crossings House
Chalet & Caravan Site
Nursery
Tidal Ponds
Mean Low Water
Mean Highwater
Chittening Warth
N
0
200
400
600
800
Meters
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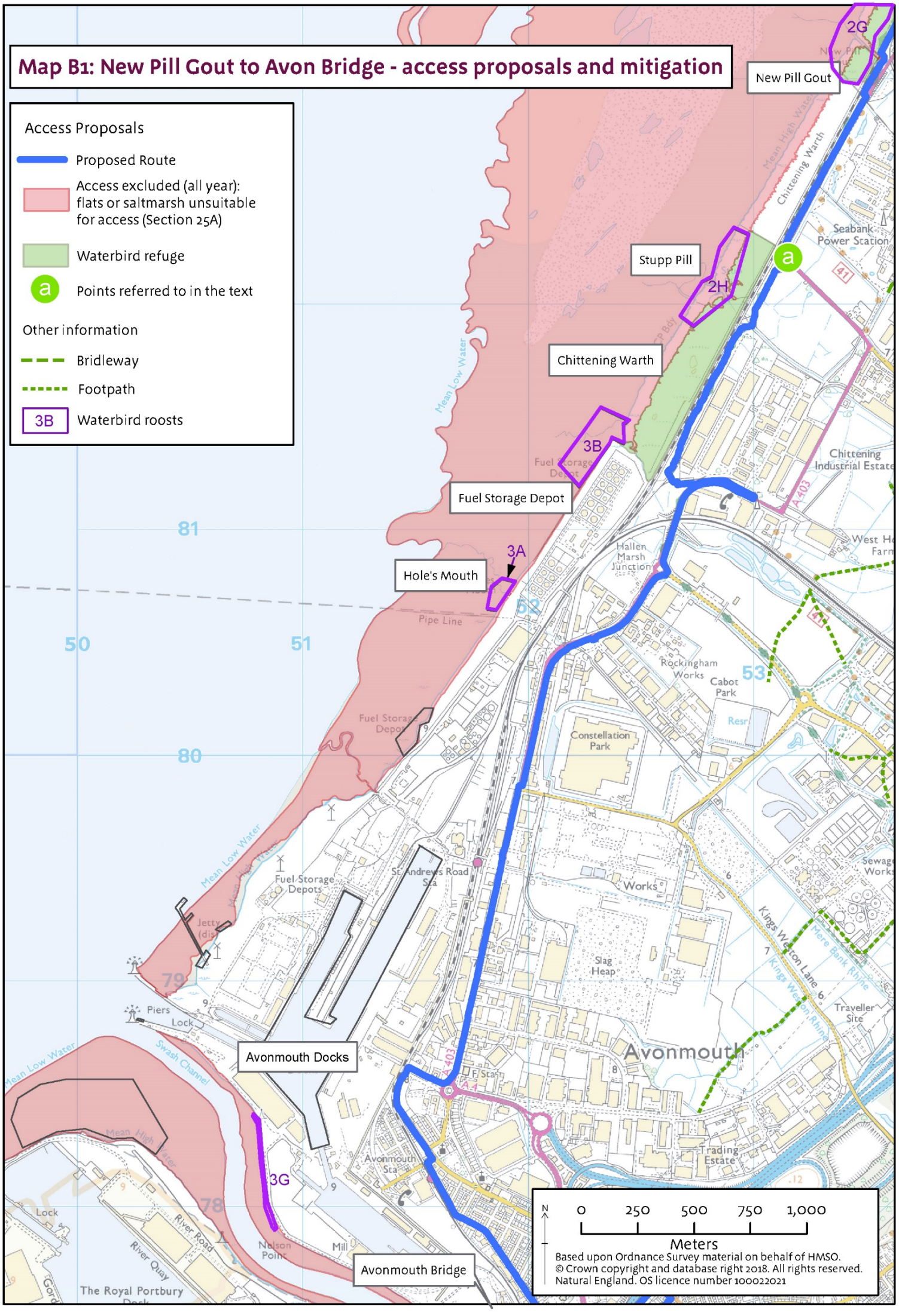
Map B1: New Pill Gout to Avon Bridge - access proposals and mitigation
Access Proposals
Proposed Route
Access excluded (all year): flats or saltmarsh unsuitable for access (Section 25A)
Waterbird refuge
a
Points referred to in the text
Other information
Bridleway
Footpath
3B
Waterbird roosts
2G
New Pill Gout
Stupp Pill
2H
Chittening Warth
3B
Fuel Storage Depot
3A
Hole's Mouth
Avonmouth Docks
3G
Avonmouth Bridge
Mean Low Water
Mean High Water
Pipe Line
Swash Channel
Chittening Industrial Estate
Seabank Power Station
Hallen Marsh Junction
Rockingham Works
Cabot Park
Constellation Park
Fuel Storage Depots
St Andrews Road Sta
Slag Heap
Kings Weston Lane
Mere Bank Rhyne
Traveller Site
Avonmouth
Avonmouth Sta
Trading Estate
Piers
Lock
Jetty (dis)
River Road
River Quay
Nelson Point
Mill
The Royal Portbury Dock
A403
A4
81
50
51
52
53
80
79
78
N
0
250
500
750
1,000
Meters
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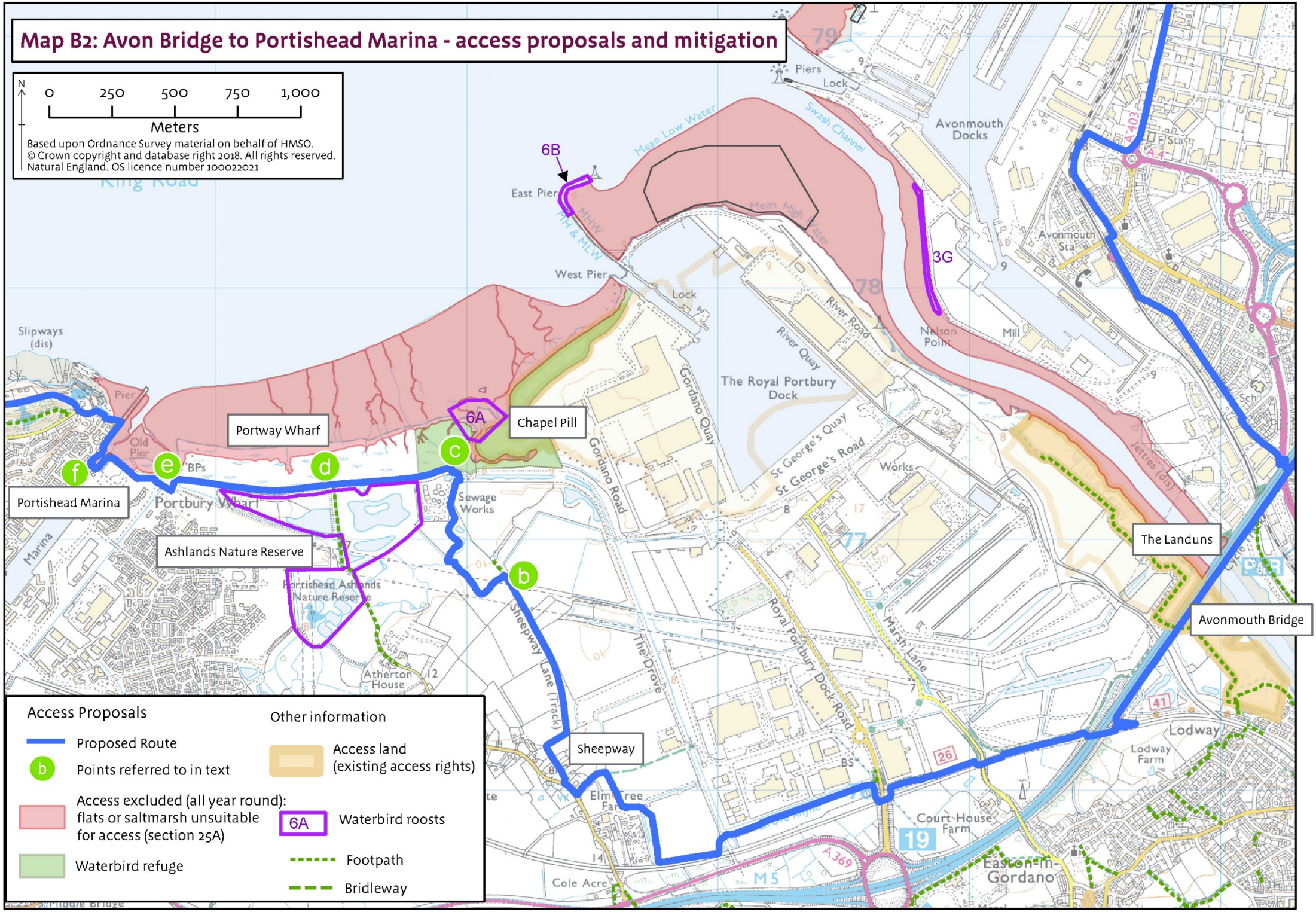
Map B2: Avon Bridge to Portishead Marina - access proposals and mitigation
N
0 250 500 750 1,000
Meters
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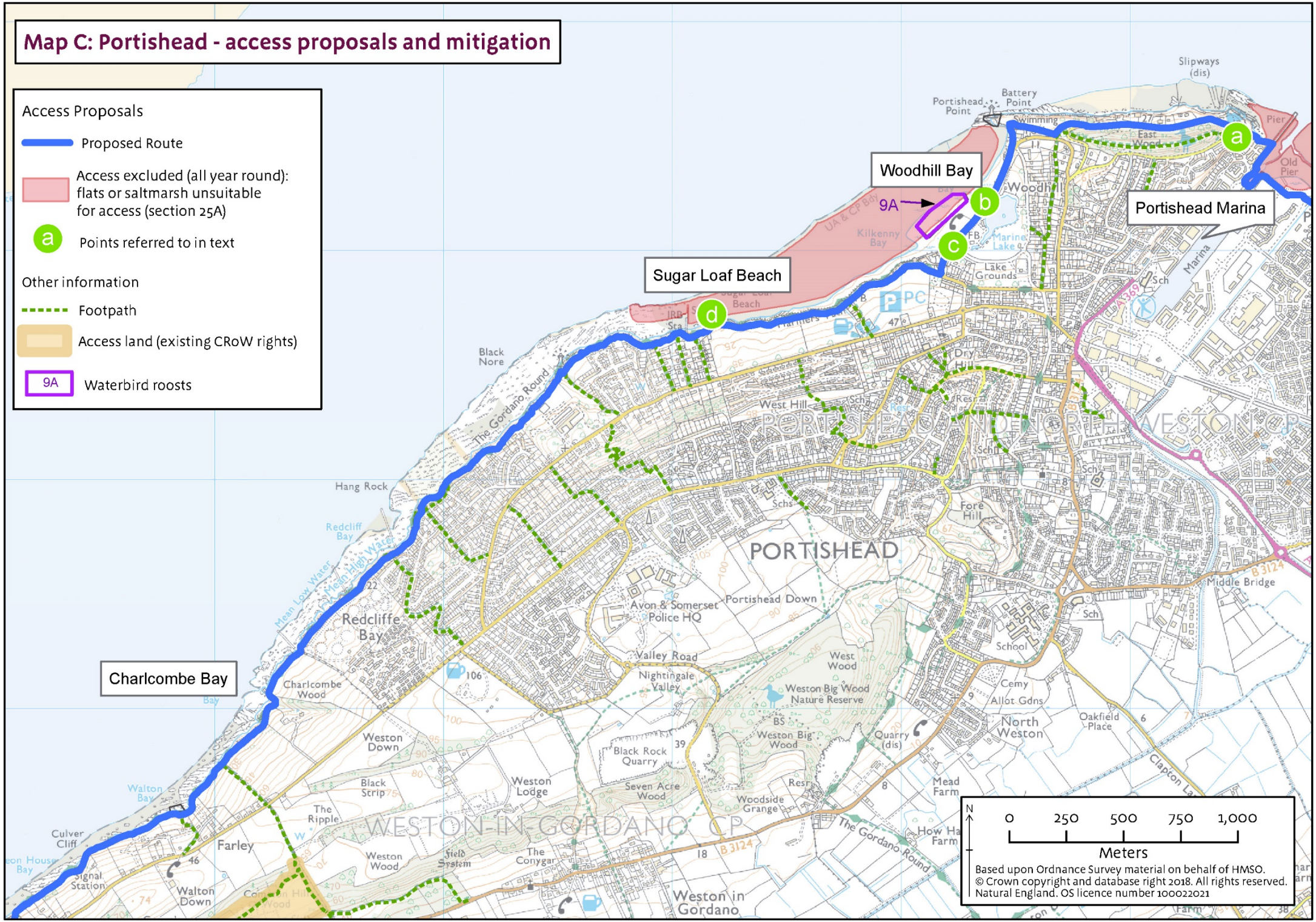
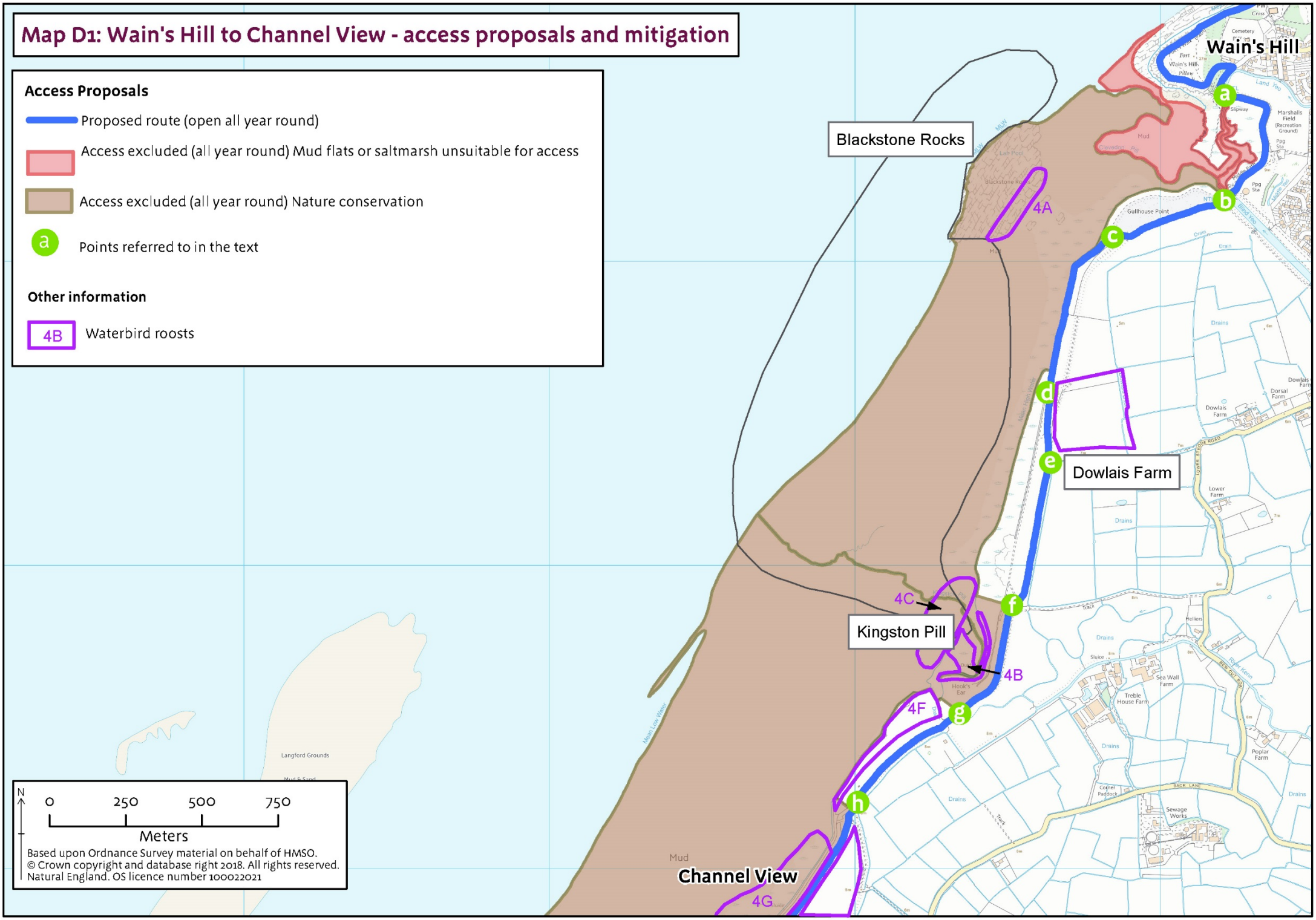
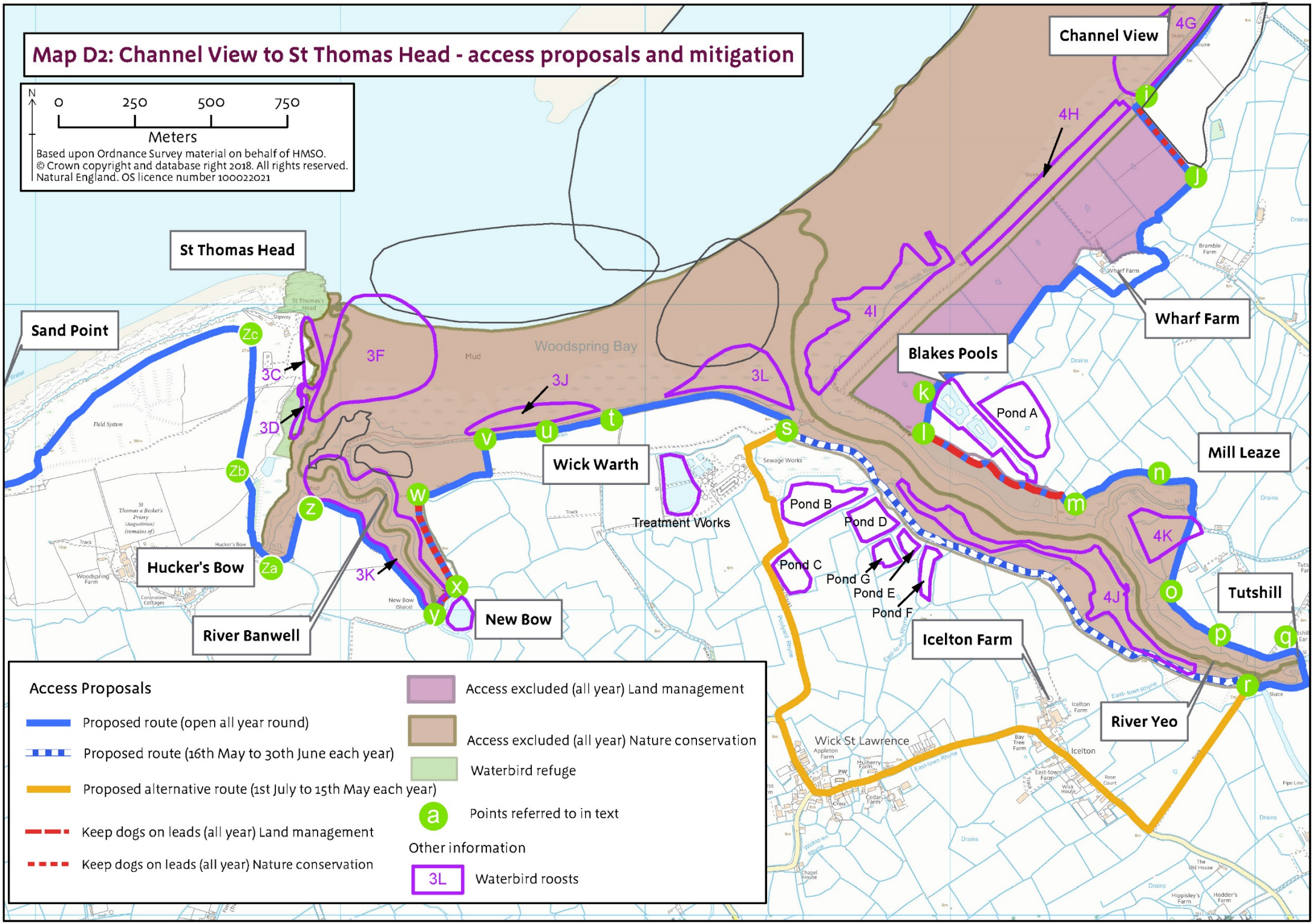
6B
East Pier
Mean Low Water
Swash Channel
Mean High Water
MHW
MH & MLW
West Pier
Piers
Lock
Avonmouth Docks
3G
Avonmouth Sta
F Sta
A403
A4
Slipways (dis)
Pier
Old Pier
BPs
Portway Wharf
6A
Chapel Pill
Lock
River Road
River Quay
Nelson Point
Mill
The Royal Portbury Dock
Gordano Quay
Gordano Road
St George's Quay
St George's Road
Works
Jetties (dis)
Sch
Portishead Marina
Portbury Wharf
Sewage Works
Ashlands Nature Reserve
Portishead Ashlands Nature Reserve
Marina
The Landuns
Avonmouth Bridge
Sheepway Lane (Track)
The Drove
Royal Portbury Dock Road
Marsh Lane
Atherton House
Sheepway
Elm Tree Farm
Court House Farm
Lodway
Lodway Farm
Cole Acre
M5
A369
Easton-in-Gordano
Middle Bridge
Access Proposals
Proposed Route
b
Points referred to in text
Access excluded (all year round): flats or saltmarsh unsuitable for access (section 25A)
Waterbird refuge
Other information
Access land (existing access rights)
6A
Waterbird roosts
Footpath
Bridleway

Map C: Portishead - access proposals and mitigation



Map D1: Wain's Hill to Channel View - access proposals and mitigation




Map D2: Channel View to St Thomas Head - access proposals and mitigation
N
0
250
500
750
Meters
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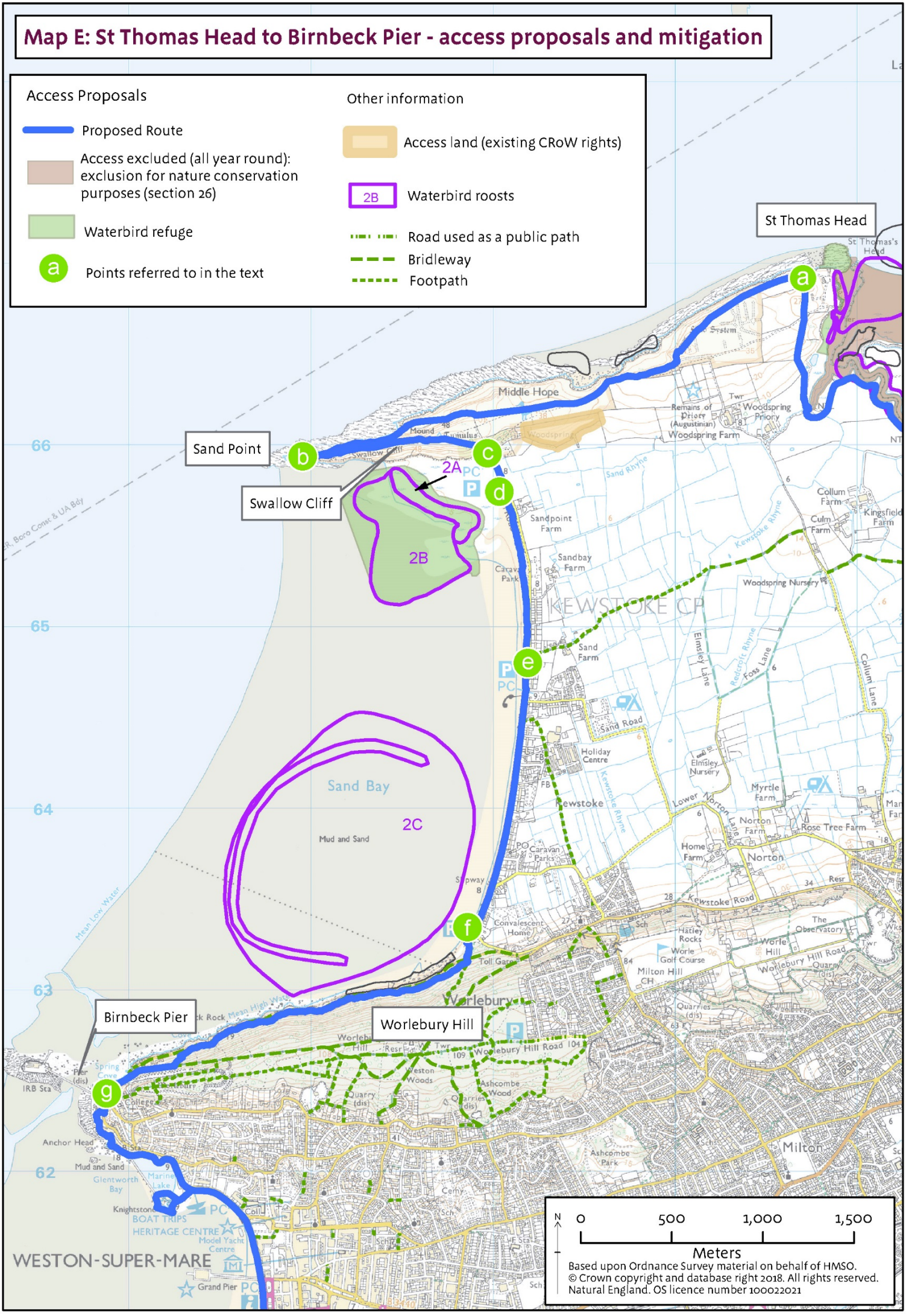
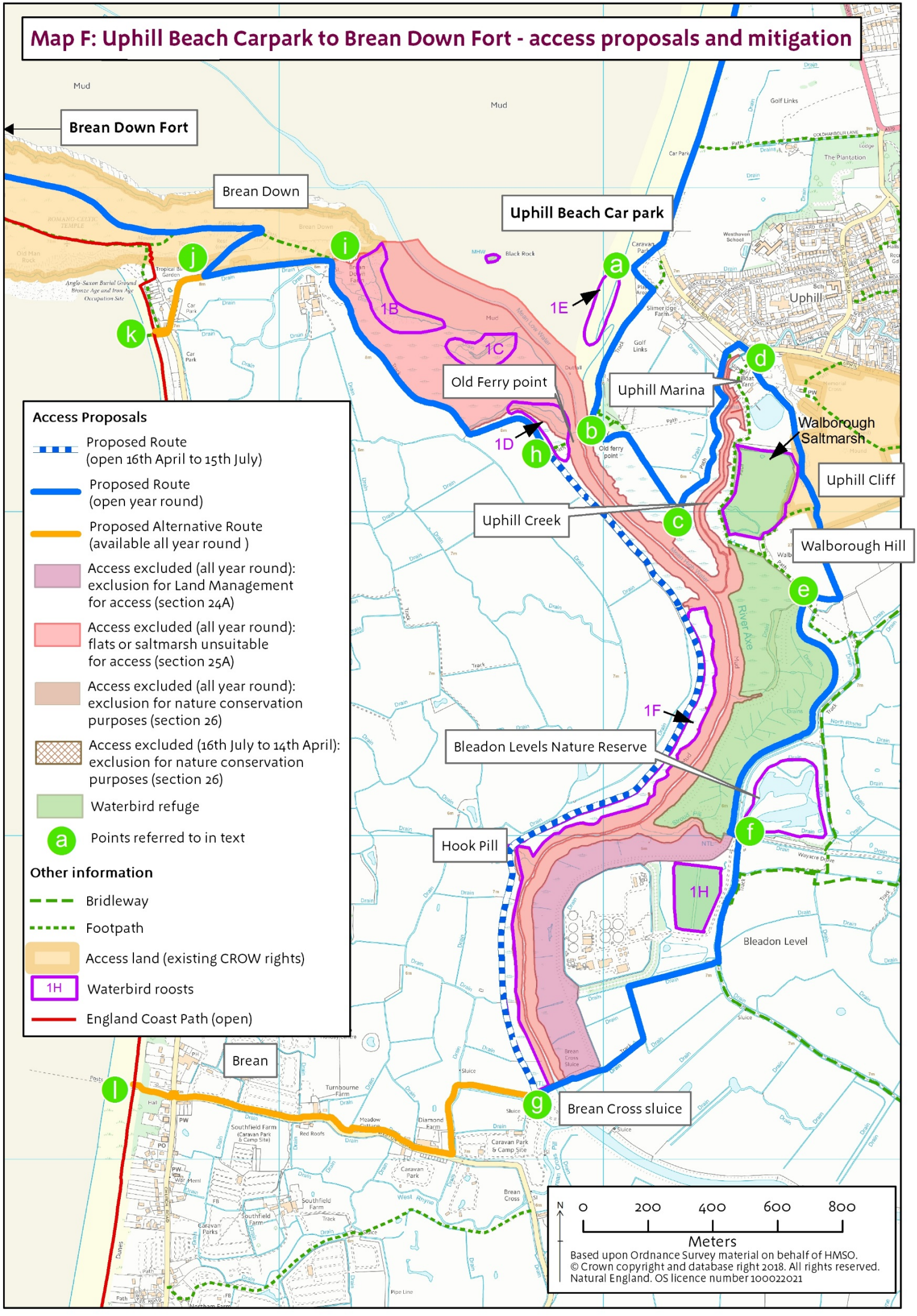
St Thomas Head
Sand Point
Hucker's Bow
River Banwell
Wick Warth
New Bow
Channel View
Wharf Farm
Blakes Pools
Mill Leaze
Tutshill
Icelton Farm
River Yeo
Woodspring Bay
Treatment Works
Pond A
Pond B
Pond C
Pond D
Pond E
Pond F
Pond G
Wick St Lawrence
Zc
Zb
Za
z
w
x
y
v
u
t
s
l
k
j
i
m
n
o
p
q
r
3C
3D
3F
3J
3K
3L
4G
4H
4I
4J
4K
Access Proposals
Proposed route (open all year round)
Proposed route (16th May to 30th June each year)
Proposed alternative route (1st July to 15th May each year)
Keep dogs on leads (all year) Land management
Keep dogs on leads (all year) Nature conservation
Access excluded (all year) Land management
Access excluded (all year) Nature conservation
Waterbird refuge
a
Points referred to in text
Other information
3L
Waterbird roosts

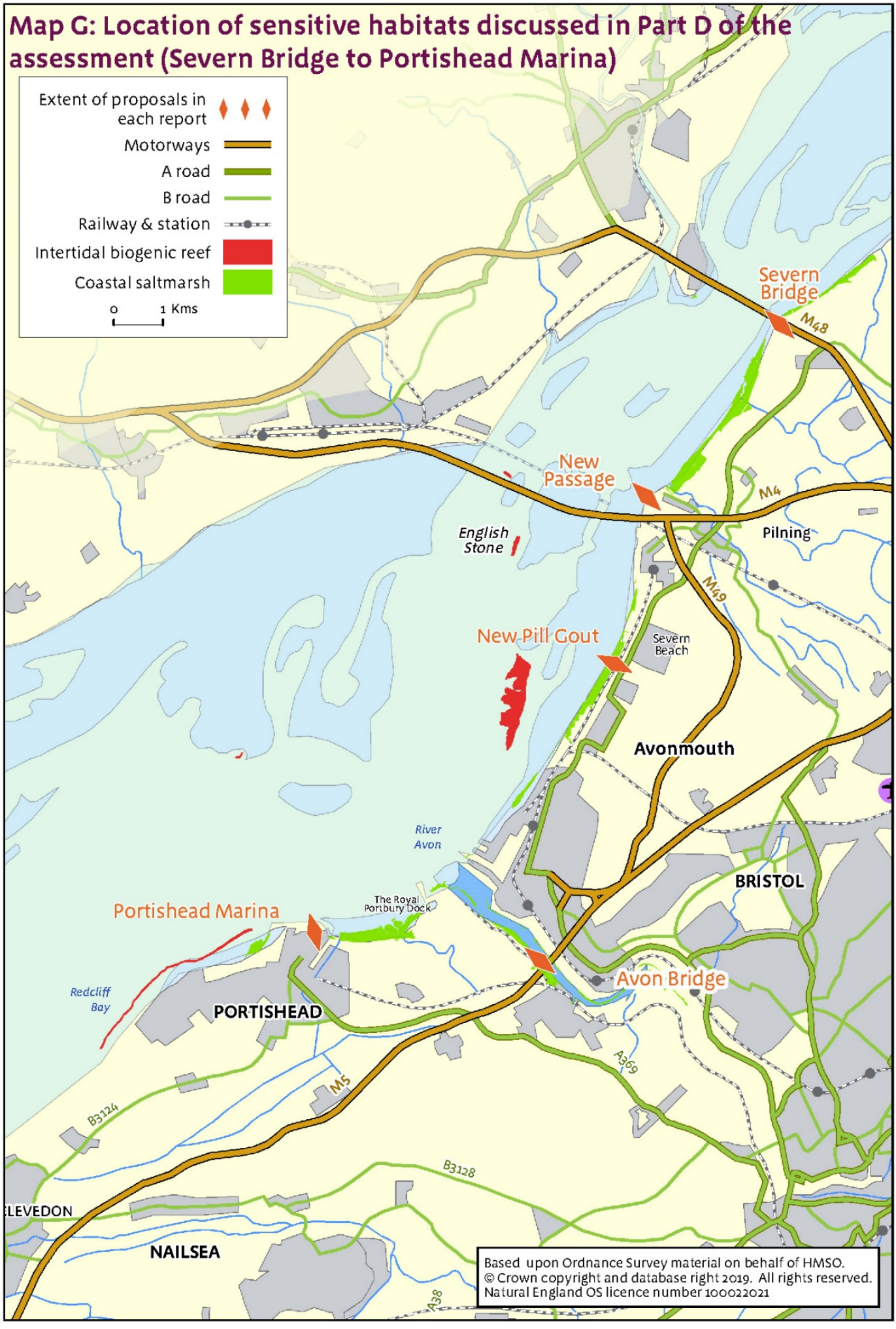
Map E: St Thomas Head to Birnbeck Pier - access proposals and mitigation



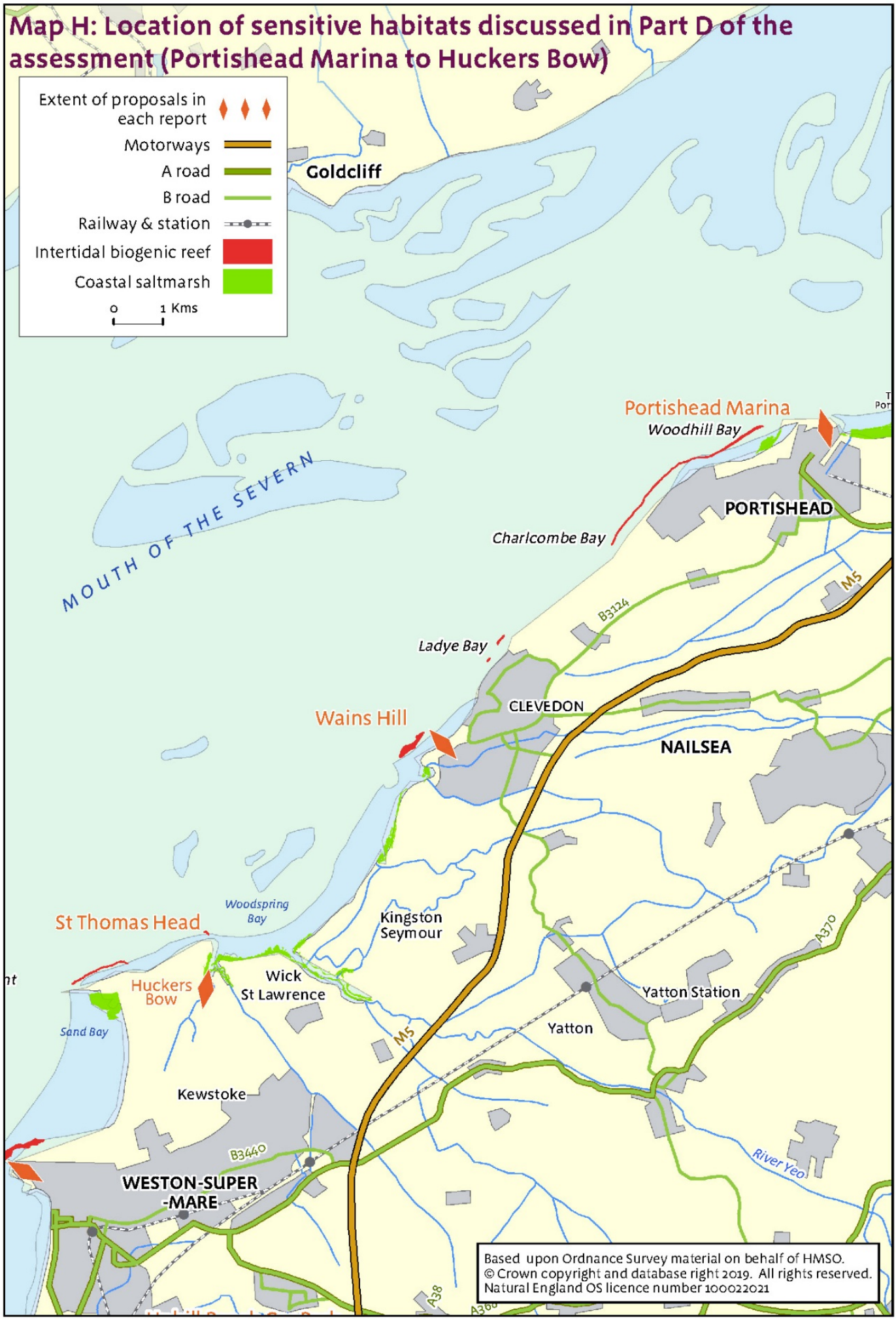
Map F: Uphill Beach Carpark to Brean Down Fort - access proposals and mitigation



Map G: Location of sensitive habitats discussed in Part D of the assessment (Severn Bridge to Portishead Marina)



Map H: Location of sensitive habitats discussed in Part D of the assessment (Portishead Marina to Huckers Bow)



Map I: Location of sensitive habitats discussed in Part D of the assessment (Huckers Bow to Brean Down Fort)