

Cornwall & Isles of Scilly Shoreline Management Plan 2: Habitat Regulation Assessment –

Scoping Report Stage 2

July 2009 **Draft Report** 9T8801



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Management Plan 2:

Habitat Regulation Assessment -

Scoping Report Stage 2

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CONTENTS

			Page
1	INTRODUCT 1.1 1.2 1.3 1.4 1.5	Background Appropriate Assessment in the Shoreline Management Plan Context Identification of Competent Authority for the SMP2 Aim of Scoping Report Report Structure	1 1 2 2 2 3
2	SITES AND I ASSESSMEN 2.1 2.1 2.2 2.3	FEATURES FOR CONSIDERATION WITHIN THE APPROPRIATE NT Introduction Sites Within or Adjacent to SMP2 Management Units New Sites Within or Adjacent to SMP2 Management Units Consultation	5 5 5 15 17
3	METHODOL 3.1 3.2 3.3 3.4	OGY Introduction to Appropriate Assessment Existing Policy Suite Appropriate Assessment of SMP2 Policies Provision of an Appropriate Assessment Report	19 19 22 22 26
4	OTHER PLA 4.1 4.2 4.3 4.4	NS AND PROJECTS Introduction Land Use Plans Maintenance Dredging Activities Regulated and Consented by the Environment Agency.	27 27 27 28 28
5	SHORELINE 5.1	MANAGEMENT OPTIONS SCOPED IN OR OUT Introduction	29 29
6	CONCLUSIC 6.1 6.1	Introduction Next Stage: Where to From Here?	33 33 33
7	REFERENCE	ES	35
8	GLOSSARY	OF TERMS	37
9	LIST OF ABE	BREVIATIONS	41
10	APPENDIX A	A	43
11	APPENDIX F	3	55



Table 2.1	Cornwall and Isles of Scilly SMP2 Natura 2000 Site Sensitivity and Potential Impacts on their Features in Response to Policy Options Associated with the Shoreline Management Plan	16
Table 2.2	Summary of Existing Consultation Responses	17
Table 3.1	Stages in the Appropriate Assessment Process	19
Table 3.2	Suggested Table to Record the Appropriate Assessment	23
Table 5.1	Key Focus of the Appropriate Assessment for each SMP2 Policy Opti	ion29
FIGURES		
Figure 2.1	Plymouth Sound and Estuaries SAC Boundary	6
Figure 2.2	Polruan to Polperro SAC Boundary	6
Figure 2.3	Fal and Helford SAC Boundary	7
Figure 2.4	The Lizard SAC Boundary	8
Figure 2.5	The Lizard SAC Boundary	9
Figure 2.6	The Isles of Scilly Complex SAC Boundary	10
Figure 2.7	Godrevy Head to St Agnes SAC Boundary	12
Figure 2.8	Penhale Dunes SAC Boundary	13
Figure 2.9	River Camel SAC Lower Site Boundary	14
Figure 2.10	Tintagel-Marsland-Clovelly Coast SAC Boundary	15
Figure 3.1	Appropriate Assessment Methodology	21
Figure 6.1	Integration of the Appropriate Assessment Process into SMP2	33

1 INTRODUCTION

1.1 Background

- 1.1.1 The need for an 'Appropriate Assessment' was identified in the Habitat Regulation Assessment Screening Report (CISCAG, 2009) prepared by Cornwall and Isles of Scilly Coastal Advisory Group (CISCAG), which identified that an Appropriate Assessment will be required for the SMP2. The need for Appropriate Assessment arises under the requirements of the EC Habitats Directive (92/43/EEC) and its implementation in the UK under the Conservation (Natural Habitats &c.) Regulations 1994. Under Regulation 48(1), Appropriate Assessment is required for a plan or project, which either alone or in combination with other plans or projects, is likely to have a significant effect on a European site and is not directly connected with or necessary for the management of the site.
- 1.1.2 A European site or *Natura 2000* site is either a Special Area of Conservation (SAC) or a Special Protection Area (SPA). Government policy as outlined in Planning Policy Statement 9 (PPS 9) is that Wetlands of international importance designated under the Ramsar Convention (Ramsar sites) should also be subject to the provisions of the Habitats Regulations. Ramsar sites, SPAs and SACs, are collectively referred to hereafter as 'international sites'.
- 1.1.3 Appropriate Assessment is the process to support a decision by the 'Competent Authority', in this case the Environment Agency, as to whether the proposed plan or project would have an adverse effect on the integrity of any International site. Planning and Policy Statement 9 (PPS 9) (Department of Communities and Local Government) defines a site's integrity as the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or population of the species for which the site is classified. An adverse effect on integrity is likely to be one that prevents the site from maintaining the same contribution to favourable status for the relevant feature(s), as it did when the site was designated.
- 1.1.4 Only where the plan or project can be determined as not having an adverse effect on any European site can it be approved by the Competent Authority. Government policy as set out in Planning Policy Statement 9 (PPS9) (Department for Communities and Local Government (DCLG), 2005) is that the provisions of the Habitats Regulations should be similarly applied to wetlands of international important designated under the Ramsar Convention ('Ramsar sites').
- 1.1.5 Where it is not possible to determine that a plan or project under consideration will not have an adverse effect on a European or Ramsar site, then alternative solutions which avoid harming site integrity must be sought. If alternatives are not possible, then the plan or project can only proceed on the basis of imperative reasons of over-riding public importance (IROPI). If IROPI is agreed by the Secretary of State, then compensatory measures must be secured to offset damage done by the plan or project, such that the overall coherence of the SAC/SPA network is maintained.
- 1.1.6 The favourable conservation status of the site is defined through the site's conservation objectives and it is against these objectives that the effects of the plan or project must be assessed. Conservation objectives set out the physical, chemical and biological thresholds, and limits of anthropogenic activity and disturbance which are required to be met to achieve the integrity of the site. Conservation objectives serve both as criteria against which site condition can be assessed and reported against, and also as a basis for assessing plans or projects which may affect the site.

1.1.7 Conservation objectives for European Marine Sites are set out in the Relevant Regulation 33 documents (so called as their production is a requirement of Regulation 33 (2) of the Habitats Regulations) for each site, which for English European Marine Sites are the responsibility of Natural England.

1.2 Appropriate Assessment in the Shoreline Management Plan Context

1.2.1 Natural England has provided an internal draft document relating to the provision of Appropriate Assessment, whilst Shoreline Management Plan (SMP) specific guidance has been prepared by the Environment Agency. The following documents: "Planning for the Protection of European Sites: Appropriate Assessment" (DCLG, 2006), "The Assessment of Regional Spatial Strategies under the Provisions of the Habitats Regulations - Draft Guidance" (English Nature, 2006), and "Appropriate Assessment of Flood Risk Management Plans Under the Habitats Regulations" (Environment Agency, Draft document) currently provide the most cohesive source of guidance relating to the provision of Appropriate Assessments for Shoreline Management Plans. Accordingly, these documents have been used as in the approach and methodology for establishing the scope of the Appropriate Assessment for the Cornwall and Isles of Scilly SMP2.

1.3 **Identification of Competent Authority for the SMP2**

1.3.1 One of the first steps in addressing SMPs under the Habitats Regulations is identification of the Competent Authority. In this instance, Royal Haskoning is undertaking the technical analysis that forms the basis of the Appropriate Assessment, but the ultimate responsibility for signing off the Appropriate Assessment and ensuring compliance with the Habitats Regulations falls to the Competent Authority. In this instance, the Competent Authority is the Local Authorities within the SMP2 Study Area, namely the Council of Isles of Scilly, and Cornwall Council.

1.4 **Aim of Scoping Report**

- 1.4.1 The aim of this report is to:
 - 1. Identify the relevant Natura 2000 sites and their features within or adjacent to the Cornwall and Isles of Scilly SMP2 management units and likely significant effect on the integrity of the Natura 2000 sites in response to the shoreline management options considered in the Cornwall and Isles of Scilly SMP2;
 - 2. Provide a provision of methodology for the Appropriate Assessment;
 - 3. Clarify other relevant plans and projects for consideration within the Appropriate Assessment; and
 - 4. Provide a summary of the potential issues associated with the shoreline management options which require consideration within the Appropriate Assessment and those which do not.
- 1.4.2 In addition, this report will be used as a consultation tool to inform the detailed Appropriate Assessment stage during the preparation of the SMP and the Strategic Environmental Assessment (SEA).

1.5 Report Structure

- 1.5.1 The remainder of this report is set out as follows:
 - Section 2 Sites and Features for Consideration within the Appropriate Assessment.
 - Section 3 Appropriate Assessment Methodology.
 - Section 4 Consideration of Other Plans and Projects.
 - Section 5 Shoreline Management Options Scoped In or Out.
 - Section 6 Conclusions.



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2 SITES AND FEATURES FOR CONSIDERATION WITHIN THE APPROPRIATE ASSESSMENT

2.1 Introduction

- 2.1.1 The Cornwall and Isles Scilly SMP2 includes all, or part of eleven *Natura 2000* sites (SACs and SPAs) designated under the Birds and Habitats Directive along with one site designated under the Ramsar Convention. These sites are considered in this Scoping Report with regards to the potential impacts of the SMP2 policy options. An account of the sites is given in **Section 2.2**, which includes the identification of the primary reasons for their designation, the factors influencing the condition of the sites, and the sites' conservation objectives and sensitivities. Further details of the sites are presented in **Appendix A**.
- 2.1.2 In addition, an overview of the likely significant effects (LSE) on the integrity of the *Natura 2000* sites and their features in response to the shoreline management options associated with the Cornwall and Isles of Silly SMP2, is summarised in **Table 2.1** with the detailed scoping assessment presented in **Appendix B**.

2.1 Sites Within or Adjacent to SMP2 Management Units

Plymouth Sound and Estuaries SAC

- 2.1.1 The site contains various primary habitats under Annex I of the Habitats Directive including sandbanks which are slightly covered by seawater all the time, estuaries, large shallow inlets and bays, reefs, Atlantic salt meadows (*lauco-Puccinellietalia aritimae*), and Annex II primary species including Shore Dock (*Rumex rupestris*). However, the area of the site within the Study Area comprises sea cliffs and possible intertidal reef habitat, rather than the estuary features, as shown in **Figure 2.1**. This is taken into account during the scoping in or out of sites for particular policies.
- 2.1.2 The primary factors influencing the condition of the Plymouth Sound and Estuaries SAC based on the *Natura 2000* data form, is increased pressure from recreational moorings and associated facilities; port development; ongoing maintenance dredging. A single scheme of management has been drafted to address these issues. Both the geology and geography of Plymouth Sound make it very sensitive to oil pollution. A review of the oil contingency strategy has been completed, along with appropriate training. However, as the habitats within the SMP study area are sea cliffs, few of these pressures extend to this area, with the exception of oil spillage risk.
- 2.1.3 The conservation objectives of the Plymouth Sound and Estuaries SAC are to maintain the sandbanks, mudflats, sandflats, estuaries, large shallow inlets and bays in 'favourable condition', taking account of natural change. No primary habitats but flushes along the sea cliff could represent potential supporting habitat for Shore Dock.
- 2.1.4 Key site sensitivities include activities, such as increased recreation associated with inlets and bays, and port development resulting in the physical loss or reduction in primary habitat extent and degradation of physical characteristics of the habitats. However, these activities are unlikely along the stretch of the site within the SMP study area, but the Shore Dock populations are at risk from sea level rise, and would be to any disturbance to the supporting habitat.

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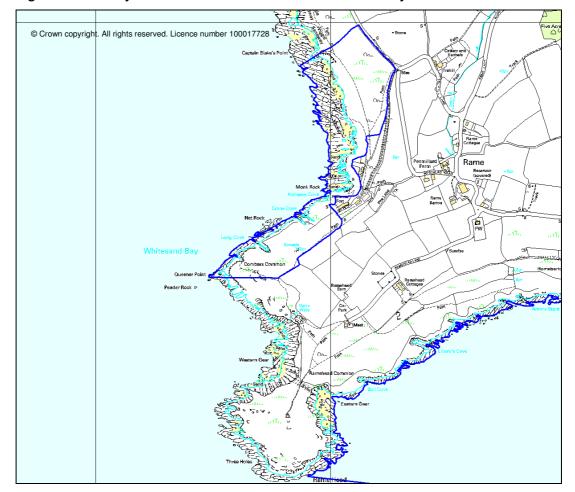


Figure 2.1 Plymouth Sound and Estuaries SAC Boundary

Polruan to Polperro SAC

2.1.5 The site contains a primary habitat under Annex I of the Habitats Directive, which is vegetated sea cliffs of the Atlantic and Baltic coasts, and Annex II primary species including Shore Dock. **Figure 2.2** shows the boundary of the site and the surrounding area.



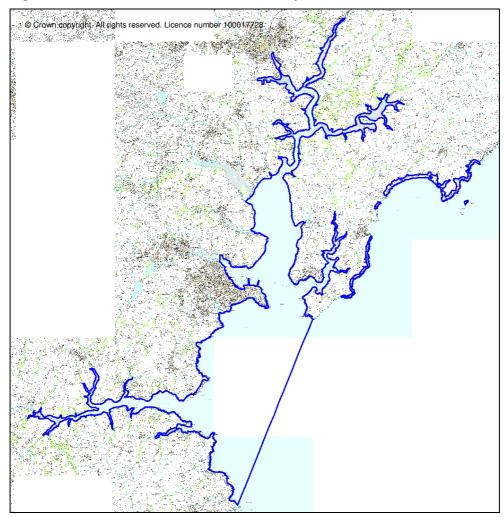
Figure 2.2 Polruan to Polperro SAC Boundary

- 2.1.6 The sea cliffs support a variety of maritime vegetation in which their condition based on the *Natura 2000* data form, is dependent on natural processes and climatic influence. The sea cliffs require limited management, and are fairly accessible in many areas. Maintenance and enhancement of the coastal strip is being pursued in collaboration with the National Trust and other land managers through the provision of advice and promotion of positive land management schemes such as the Wildlife Enhancement Scheme and Countryside Stewardship.
- 2.1.7 The conservation objectives of the Polruan to Polperro SAC are to maintain the vegetated sea cliffs and European dry heath in 'favourable condition', taking account of natural change.
- 2.1.8 Key site sensitivities include activities or developments, such as new coastal protection works resulting in changes of natural processes, and subsequent physical loss or reduction in primary habitat extent and degradation of physical characteristics of the habitats.

Fal & Helford SAC

2.1.9 The site (**Figure 2.3**) contains primary habitats under Annex I of the Habitats Directive, including sandbanks, mudflats, large shallow inlets and bays, Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), and Annex II primary species including Shore Dock.

Figure 2.3 Fal and Helford SAC Boundary

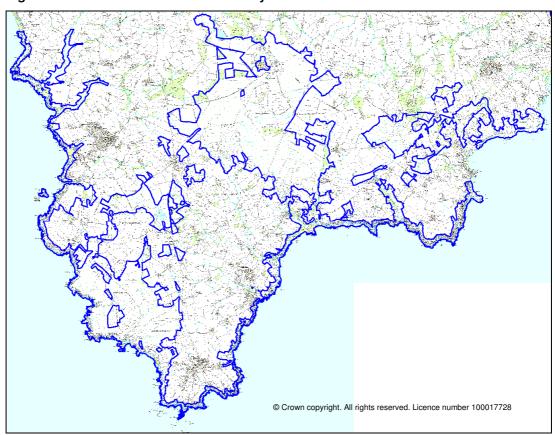


- 2.1.10 The ria systems of the Fal and Helford Rivers and adjacent Falmouth Bay attract visitors and accommodate many commercial and recreational activities. Potential influences on the condition of the Fal & Helford SAC site based on the *Natura 2000* data form include: additional usage of the area for deep water moorings; deep-water oil rig lay-up in Carrick Roads; increased pressure for recreational moorings and associated facilities; port development; oil pollution, and water quality issues arising from the effects of sewage discharges into this SAC.
- 2.1.11 The conservation objectives of the Fal & Helford SAC are to maintain the large shallow inlets and bays, estuaries, subtidal sandbanks, inter-tidal sand and mudflats, saltmarsh (Atlantic salt meadows) and reefs in 'favourable condition', taking account of natural change.
- 2.1.12 Key site sensitivities include activities or developments, such as increased recreational and commercial pressure associated with inlets and bays and port development resulting in the physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

The Lizard SAC

2.1.13 The site (shown on **Figure 2.4**) contains primary habitats under Annex I of the Habitats Directive including vegetated sea cliffs of the Atlantic and Baltic coasts, hard oligomesotrophic waters with benthic vegetation of *Chara* spp., Mediterranean temporary ponds, Northern Atlantic wet heaths with *Erica tetralix*, European dry heaths, and Dry Atlantic coastal heaths with *Erica vagans*.

Figure 2.4 The Lizard SAC Boundary

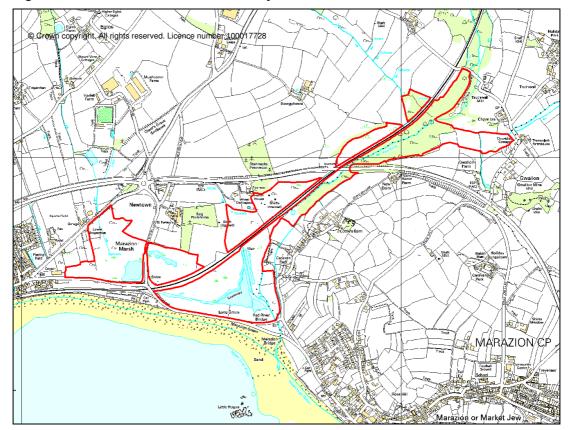


- 2.1.14 Over half the Lizard SAC is a National Nature Reserve and much of the remainder is managed by the National Trust. Threats to the condition of the site based on the *Natura 2000* data form, at the present time, are limited. Uncontrolled fires still pose a threat, but greater public awareness, improved response times and fire-breaks minimise the risk.
- 2.1.15 The conservation objectives of the Lizard SAC are to maintain the vegetated sea cliffs, geological features associated with the cliffs and Northern Atlantic wet heaths including their component vegetation types in 'favourable condition', taking account of natural change.
- 2.1.16 Key site sensitivities include activities, such as uncontrolled fires resulting in physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

Marazion Marsh SPA

2.1.17 This site (shown on **Figure 2.5**) qualifies under Article 4.1 of the Birds Directive (79/409/EEC) by supporting populations of European species of importance listed on Annex I of the Directive, including Aquatic Warbler (*Acrocephalus paludicola*) and Bittern (*Botaurus stellaris*).

Figure 2.5 The Lizard SAC Boundary



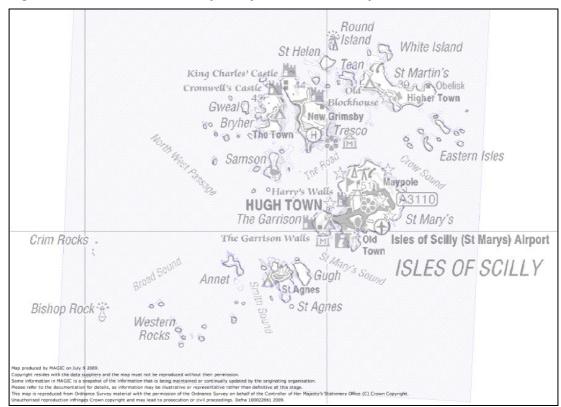
2.1.18 Based on the SSSI component of the Marazion Marsh SPA, the majority of this site is in favourable and unfavourable recovering condition with the primary factor influencing the site being inappropriate scrub management, although scrub removal is being undertaken for the Marazion Marsh SPA.

- 2.1.19 The conservation objectives of the Marazion Marsh SPA are to maintain, in favourable condition, subject to natural change, the supporting habitats for the populations of Annex I bird species (Aquatic Warbler and Bittern) of European importance, with particular reference to the dense willow carr and reed-marsh, streams, open water, unimproved grassland, scrub, sand dunes and sand beaches.
- 2.1.20 Key site sensitivities include activities or developments, such as inappropriate scrub management resulting in the physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

Isles of Scilly Complex SAC

2.1.21 The site (shown on **Figure 2.6**) contains various primary habitats under Annex I of the Habitats Directive including sand banks, mudflats, sandflats and reefs, and Annex II primary species including Shore Dock.

Figure 2.6 The Isles of Scilly Complex SAC Boundary



- 2.1.22 Based on the SSSI component of the Isles of Scilly SPA the overall condition of the Isles of Scilly SPA is in favourable condition, with no primary factors influencing the condition of the site.
- 2.1.23 The conservation objectives of the Isles of Scilly SAC are to maintain the sand banks, mudflats, sandflats, reefs and lowland dry heathland in 'favourable condition', taking account of natural change.
- 2.1.24 Although no current factors influence this site, potential key site sensitivities include activities or developments such as new coastal protection works resulting in the physical loss or reduction in primary habitat extent and degradation of physical characteristics of the habitats.

Isles of Scilly SPA and Ramsar

- 2.1.25 This site qualifies under Article 4.1 of the Birds Directive (79/409/EEC) by supporting populations of European species of importance including Storm Petrel (*Hydrobates pelagicus*). The site also qualifies under Article 4.2 by supporting populations of Lesser Black-backed Gull (*Larus fuscus*) and regular supporting at least 20,000 seabirds. In addition, the site also includes Ramsar criterion 6 in that the site contains during the breeding season 2.9% of the population of Lesser Black-backed Gull and 0.2% of the GB population of European Storm Petrel. Species supported for future consideration include some 1.3% of the population of European Shad (*Phalacrocorax aristotelis*).
- 2.1.26 Based on the SSSI component of the Isles of Scilly SPA the overall condition of the Isles of Scilly SPA is in favourable condition, with no primary factors influencing the condition of the site.
- 2.1.27 The conservation objectives of the Isles of Scilly SPA are to maintain, in favourable condition, subject to natural change, the supporting habitats for the populations of Annex I bird species (Storm Petrel and Lesser Black-backed Gull) of European importance, with particular reference to maritime cliff and slope habitat including Big Pool and Browarth Point.
- 2.1.28 Although no current factors influence this site, potential key site sensitivities include activities or developments, such as new coastal protection works resulting in the physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

Godrevy Head to St Agnes SAC

- 2.1.29 The site (shown on **Figure 2.7**) contains primary habitats under Annex I of the Habitats Directive including Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix*, European dry heaths, and Annex II primary species including Early Gentian (*Gentianella anglica*).
- 2.1.30 The site is owned by the National Trust and public access is promoted. Potential influences on the condition of the site based on the *Natura 2000* data form, could be trampling, scrub invasion, and summer fires. The National Trust is managing the site in accordance with the nature conservation objectives set out in the agreed site management statement, which includes actions to address these issues. Management for scrub invasion or invasive species may be required.
- 2.1.31 The conservation objectives of the Godrevy Head to Agnes SAC are to maintain the Temperate Atlantic wet heaths and European dry heaths including their component vegetation types and geological features associated with the cliffs in 'favourable condition', taking account of natural change.
- 2.1.32 Key site sensitivities include activities or developments, such as inappropriate scrub management and recreational pressures resulting in changes of natural processes and physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

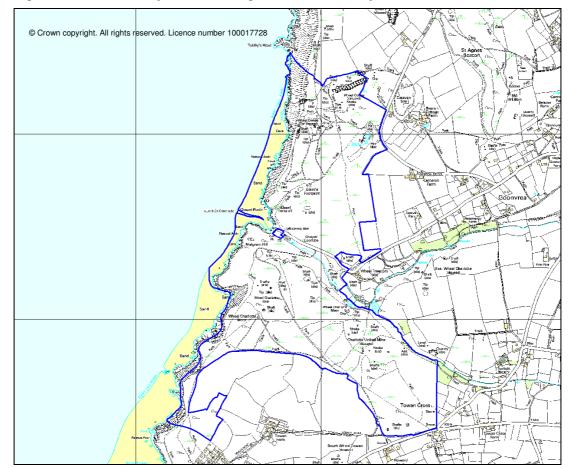


Figure 2.7 Godrevy Head to St Agnes SAC Boundary

Penhale Dunes SAC

- 2.1.33 The site (shown on **Figure 2.8**) contains primary habitats under Annex I of the Habitats Directive including fixed dunes with herbaceous vegetation (grey dunes) and humid slacks, and Annex II primary species including Shore Dock, Petalwort (*Petalophyllum ralfsii*), and Early Gentian (*Gentianella anglica*).
- 2.1.34 The condition of these extensive and exposed calcareous dunes based on the *Natura 2000* data form, is dependent upon the natural dune processes being allowed to continue. The unspoilt character of the site is in part a result of approximately half the area being under Ministry of Defence occupation, which over the years has restricted public access. The Ministry of Defence has also voluntarily implemented policies designed to reduce any artificially induced instability into the system, e.g. limiting vehicle movements and access. A site management statement has been drawn up between Natural England and Ministry of Defence, which forms the basis of an agreed management plan. The other main landowners on the site have entered the Countryside Stewardship Scheme. The site management statements for all the three landowners cover visitor pressure, grazing, fire control, and scrub management.
- 2.1.35 The conservation objectives of the Penhale Dunes SAC are to maintain the fixed and shifting dunes and their component vegetation types and humid slacks in 'favourable condition', taking account of natural change.

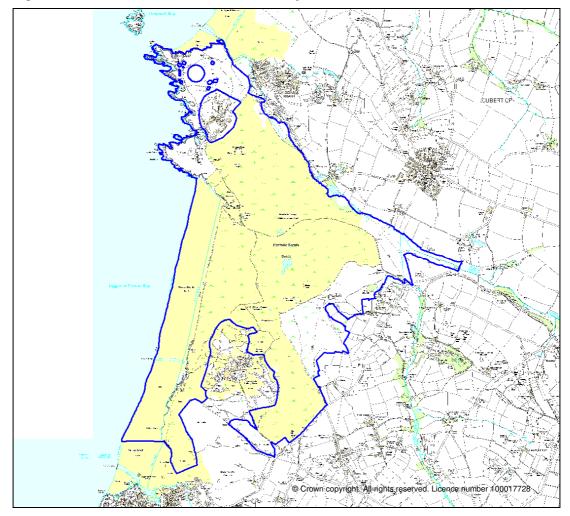


Figure 2.8 Penhale Dunes SAC Boundary

2.1.36 Key site sensitivities include activities or developments, such as new coastal protection works resulting in changes of natural processes and physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

River Camel SAC

- 2.1.37 Although the site (lower reaches shown on **Figure 2.9**) contains no primary habitats under Annex I of the Habitats Directive as a primary reason for the selection of this site, habitats present as a qualifying feature include European dry heaths, old sessile oak woods with *Ilex* and *Blechnum*, and alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). Annex II primary species that are the reasons for the selection of this site include Bullhead (*Cottus gobio*) and Otter (*Lutra lutra*).
- 2.1.38 The condition of the Otter and Bullhead populations of the River Camel SAC based on the Nature 2000 data form are dependent on high water quality and a natural river environment including bank-side trees, areas of woodland scrub and rank vegetation which are particular important for Otters. Maintenance and creation of these features is being pursued in collaboration with the Environment Agency (EA), provision of advice to land managers, and the promotion of positive land management schemes. Disturbance is also an issue, particularly as the Camel Trail (a major walking/cycling attraction) is situated next to the site.

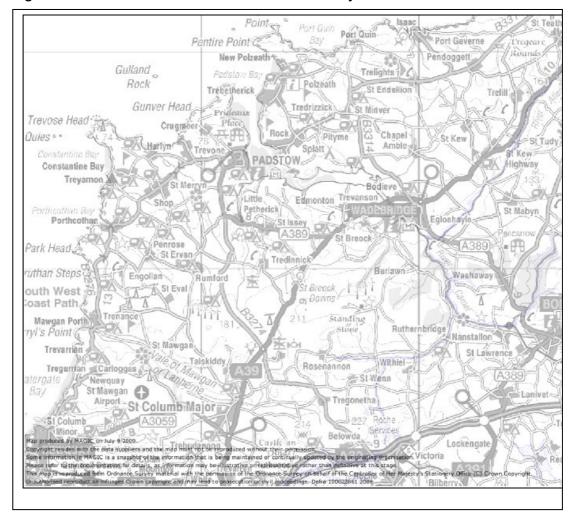


Figure 2.9 River Camel SAC Lower Site Boundary

- 2.1.39 The conservation objectives of the River Camel SAC are to maintain the European dry heaths, broad-leaved deciduous and mixed woodland, pastures, inland water bodies, tidal rivers, and marshes in 'favourable condition', taking account of natural change.
- 2.1.40 Key site sensitivities of the River Camel SAC include changes in coastal levels and water flow, water abstraction, water pollution, agricultural runoff, tourism impacts associated with River Camel Trail, and over-fishing.

Tintagel-Marsland-Clovelly Coast SAC

- 2.1.41 The site (shown on **Figure 2.10**) contains primary habitats under Annex I of the Habitats Directive including vegetated sea cliffs of the Atlantic and Baltic coasts, and old sessile oak woods with *llex* and *Blechnum*.
- 2.1.42 The sea cliffs support a variety of maritime vegetation in which their condition based on the *Natura 2000* data form is dependent upon natural processes and climatic influence. The sea cliffs require limited management, and are fairly inaccessible in many areas. Maintenance and enhancement of the coastal strip is being pursued in collaboration with the National Trust and other land managers, through the provision of advice and promotion of positive land management schemes such as the Wildlife Enhancement Scheme and Countryside Stewardship.

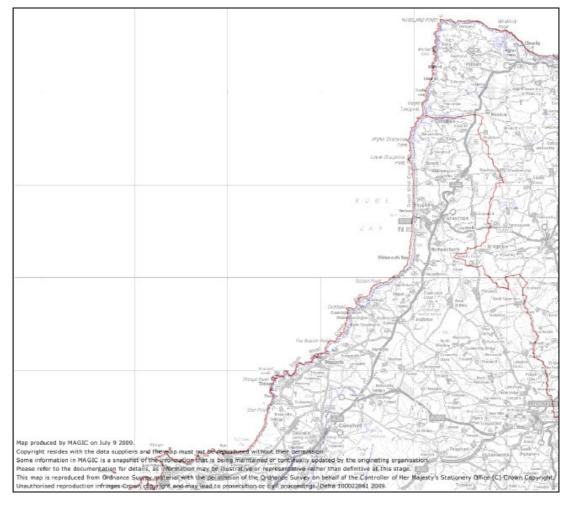


Figure 2.10 Tintagel-Marsland-Clovelly Coast SAC Boundary

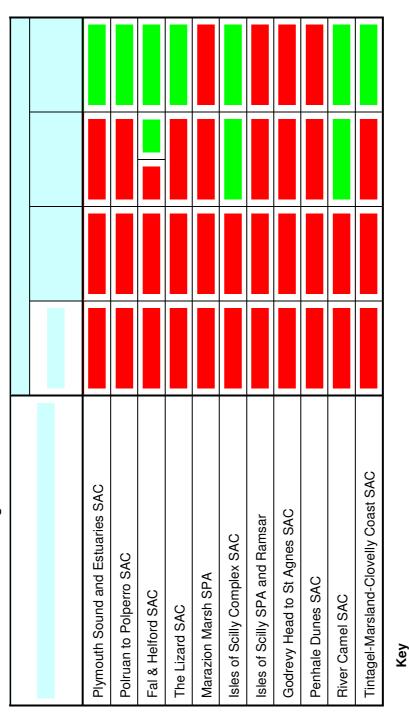
- 2.1.43 The conservation objectives of the Tintagel-Marsland-Clovelly Coast SAC are to maintain the vegetated sea cliffs and geological features associated with the cliffs, old sessile oak woods and European dry heath in 'favourable condition', taking account of natural change.
- 2.1.44 Key site sensitivities include activities or developments, such as new coastal protection works resulting in changes of natural processes and physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats.

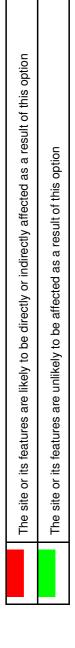
2.2 New Sites Within or Adjacent to SMP2 Management Units

2.2.1 Potential new designations or extensions to existing designated sites that are currently being reviewed by Natural England include the Lizard Point Reefs (SAC), Lands End (SAC) and Cape Bank (SAC), which are located at the southern end of Cornwall and predominately compromise Annex I reef habitats.



Cornwall and Isles of Scilly SMP2 Natura 2000 Site Sensitivity and Potential Impacts on their Features in Response to Policy Options Associated with the Shoreline Management Plan Table 2.1





2.3 Consultation

2.3.1 Consultation with Natural England and the Environment Agency during the SEA Scoping has identified a number of key issues experienced by or affecting the Cornwall and Isles of Scilly SAC, SPA and Ramsar sites. A summary of the consultation is presented in **Table 2.2**. Detailed consultation on the Appropriate Assessment will be undertaken with both of these bodies using this Scoping Report as the discussion document.

Table 2.2 Summary of Existing Consultation Responses

Consultee	Key Comments	
Environment Agency	The EA consider that:	
	The requirements of the Water Framework Directive (WFD) to be an integrate part of the long term management of water bodies associated with the <i>Natura 2000</i> sites.	
	 Loss of BAP habitats associated with the Natura 2000 sites in response to arrange of pressures such as seal level rise, coastal squeeze and agricultural activities are key issues, for which measures should be undertaken where possible to protect and enhance the quality of designated habitats. 	
	Several rivers within the Cornwall and Isles of Scilly SMP2 study area including the River Camel are important for salmonids and other fish species such as Sea Lamprey.	
Natural England	Cornwall and Isles of Scilly SMP2 key issues:	
	 Inappropriate coastal management causing unfavourable conditions of various SSSI units associated with the Natura 2000 sites. 	
	Loss of coastal habitats due to coastal squeeze between rising sea levels and hard sea/flood defences.	
	The importance of designated freshwater and brackish habitats that are protected behind sea-defences (e.g. Marazion Marsh) which have uncertain futures, if defences are allowed to fail and thus there may be a need to create compensatory habitats.	
	Inappropriate scrub and invasive species control.	
	Water pollution, farming practises can have an impact on water quality within the <i>Natura 2000</i> sites.	
	Recreational disturbance.	
	While Natural England would not want see habitat lost from coastal sites due to coastal protection works, in some instances some habitats in there present location may no longer be sustainable and that it will need to be allowed to be lost.	



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3 METHODOLOGY

3.1 Introduction to Appropriate Assessment

3.1.1 The methodology for the detailed assessment of the effects of the proposed SMP policies on *Natura 2000* sites has been developed in accordance with the guidance of the DCLG and Natural England, as well as utilising the RSPB guidance. Additionally, Appropriate Assessment methodologies devised for large scale developments have been evaluated to ensure that the approach provided here is based on actual practical implementation of the Habitats Regulations. The approach developed has also been tailored to ensure that the requirements of the Habitats Regulations and supporting guidance are met. The need to ensure that the assessment is actually 'appropriate' to the evaluation of policies relating to shoreline management activities has also been recognised. Appropriate Assessment is a four stage process, as outlined in **Table 3.1**. A summary of the methodology is illustrated in **Figure 3.1**, which shows the manner in which the overall assessment progresses, and how key tasks relate to one another.

Table 3.1 Stages in the Appropriate Assessment Process

Stage	Description	Comments	
Screening	The initial evaluation of a plan's effects on a European Site. If it cannot be concluded that there will be no significant effect upon any European Site an Appropriate Assessment will be required. At the end of this process a screening decision is made by the Competent Authority as to whether Appropriate Assessment is triggered.	An initial screening has been undertaken by CISCAG (in consultation with Natural England) who have established that an Appropriate Assessment is required for the Cornwall and Isles of Scilly SMP2.	
Scoping	Preparation for the Appropriate Assessment where screening has shown that likely significant effects could occur to a European Site. It identifies what impacts the AA should cover and should address any gaps in knowledge to ensure the AA is complete and accurate.	This report comprises the scoping stage. It determines which policy options of the SMP2 will have a likely significant effect and which, therefore, will be subject to Appropriate Assessment (Final Report).	
Appropriate Assessment	Evaluating the evidence gathered on impacts and considering whether changes to the plan are need to ensure that it will not have an adverse effect on a European Site. Normally the AA process will stop here and the plan can be adopted.	The methodology for this stage is set out in Section 3.3 .	
Consideration of alternatives	The plan-making authority must demonstrate that its policy or allocation is the least damaging way of meeting the need identified in the plan.	This stage may not be required. Further details are set out in Section 3.3.5.	

- 3.1.2 Significant effects have been screened using the RSPB guidance (2007) which states that a significant effect is triggered when:
 - There is the *probability or a risk* of a plan or project having a significant effect on a European Site;
 - The plan is *likely to undermine* the site's conservation objectives; and
 - A significant effect *cannot be excluded* on the basis of objective information.

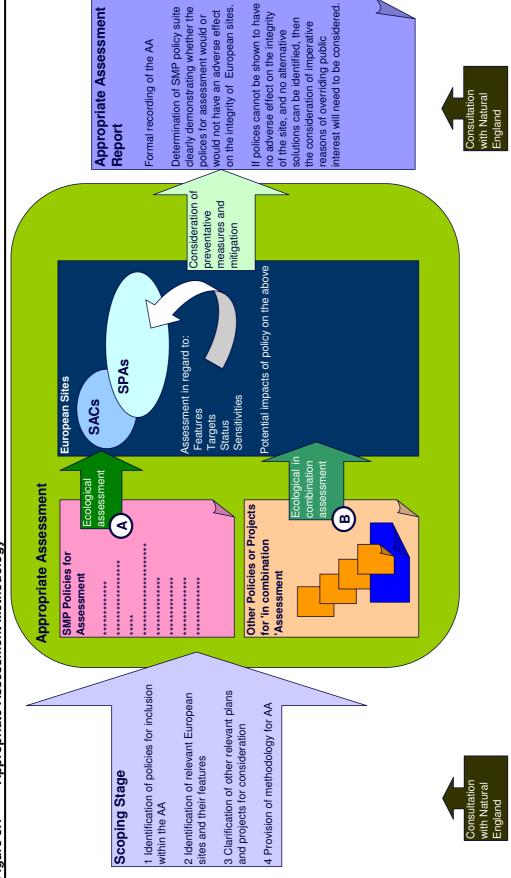


Figure 3.1 Appropriate Assessment Methodology

3.2 Existing Policy Suite

- 3.2.1 SMPs are policy setting documents that determine how a Competent Authority will manage 'their' shoreline and its coastal defences over the next 100 years. The policy options available are:
 - 1. Hold the Line.
 - 2. Advance the Line.
 - 3. Managed Realignment.
 - 4. No Active Intervention.
- 3.2.2 In the context of the Appropriate Assessment, it is considered that all options (1-4) should be considered to determine whether they may have a likely significant effect on International sites. Although option 4 may not constitute 'development' in the context of the guidance which is emerging, it is considered that in the application of this guidance to the provisions of an SMP, this option should be considered (this accords with Natural England's position on this matter). Options relating to no actual development remain pertinent to the assessment since they have the potential to have significant effects on site features (for example the loss of habitat due to coastal squeeze or inundation). Accordingly, all options have been considered for inclusion within the Appropriate Assessment.

3.3 Appropriate Assessment of SMP2 Policies

Appropriate Assessment of the Cornwall and Isles of Scilly SMP2

- The assessment of the SMP policies will be supported by a tabulated account based on 3.3.1 an adaptation of the favourable condition tables for the SSSIs which underpin the international sites. Tables will be provided to show the key features of the site, the attributes relevant to such features, the identified management targets for the site and known sensitivities or management issues. Each policy within the assessment will then be evaluated and tabulated against each feature in regard to the potential impacts of the policy, preventative measures that could be taken, mitigation and a commentary on the impacts of the policy on the site features and targets. On the basis of this exercise, an assessment can then be provided in regard to the overall impacts of each policy on the This exercise will be recorded at the overall integrity of the international site. Management Unit level, so that the policies for each unit will be assessed in regards to the possible impacts on the European features within that management unit. Units have been devised to provide discreet, spatial areas for policy application, however, if a policy may affect a neighbouring management unit, this will be included in the assessment.
- 3.3.2 An illustrative table is provided below (see **Table 3.2**), which will form the basis of how the assessment is recorded. It is fully understood that the favourable condition tables will need to be refined to the extent that they relate solely to the features relevant to the European sites and not to features that are not covered by the Habitats or Birds Directives.

Appropriate Assessment using the methodology described here will only be applied to preferred policy options. This does not preclude consideration of other policy options in terms of the Regulations and it is anticipated that preferred options will be developed with the likely acceptability of these in terms of the Regulations as a key consideration.

Table 3.2 Suggested Table to Record the Appropriate Assessment

Policy	Policy					
Sub Feature	Attribute		Potential effect of policy	Preventative Measures	Mitigation	Implications for the integrity of the site
Site Featu	Site Feature E.g. Ringed Plover					
						·

- 3.3.3 Although Ramsar features and sites do not have favourable condition tables, it should be stressed that conservation objectives set out in the Regulation 33 package have been produced to broadly protect the underlying habitat and environmental conditions required by Annex 1 and 2 habitats and species. Given the close correlation between Ramsar and European features, the conservation objectives within the Regulation 33 package is generally adequate to protect Ramsar features. Nonetheless, where Ramsar features need consideration over and above those of European features, the high level generic conservation objective for international sites will be applied to Ramsar sites and their features, that is; Subject to natural change to maintain in favourable condition the Ramsar features and their supporting habitats.
- 3.3.4 The provision of the tables to record and summarise the Appropriate Assessment will be underpinned by any ecological assessment, survey or analysis which supports the assessment process.
- 3.3.5 Tables will be provided for each policy under consideration will supporting analysis and commentary on how the assessment accords with guidance and is compliant with the regulations.
- 3.3.6 For each policy and management unit, a commentary and determination will be provided which will clearly express the likely impacts of the policy on each international site and illustrate the measures which could be taken to avoid any adverse impacts identified. The level of assessment will be provided at an 'appropriate' level commensurate with a policy based assessment and in recognition of the fact that further assessment would be provided when the actual proposal for the works was forthcoming (under Land drainage and/or Town and Country planning application procedures). Paragraph 1.7.1 of the emerging Natural England Guidance document (Natural England, 2006) acknowledges the need to provide a level of assessment that is 'appropriate' and refers to the ECJ ruling where the Advocate General's opinion was that the assessment for policy should be as rigorous assessment as can reasonably be undertaken.

Information to Support the Appropriate Assessment

3.3.7 In order to provide detailed information for the Appropriate Assessment of the preferred SMP2 policies, coastal engineers and geomorphologists will calculate and prepare the Mean High Water Spring (MHWS) tide level, Mean Low Water Spring (MLWS) tide level, and the 1 in 1 year storm event level for the 3 epochs to be covered by the SMP2. Alongside this, the shoreline position from the present to the future will be calculated and mapped. The results will provide information regarding the change in area of intertidal habitats within the MLWS – MHWS - 1in 1 year storm level, as well as the change due to erosion, thus allowing the likely change in area of intertidal or terrestrial habitats to be identified. Coupled with discussions regarding the results, the data and information will be used to inform the assessment of effects on the habitats and species within the sites.

Assessment of Impacts over Different SMP Epochs

- 3.3.8 The complications of applying the Habitats Regulations at the policy level are further enhanced by the different timescales or epochs over which they apply (20 years, 50 years and 100 years). The epochs extend from 2009 to 2025, then to 2105.
- 3.3.9 The possibility exists whereby SMPs or their policies will result in short-term adverse impacts, but that in the longer-term the SMP will enable site integrity to be maintained. Agreement with Natural England will have to be reached on the degree and duration of unfavourable shoreline management which can be tolerated in anticipation of longer-term achievement of site integrity.

Provision of an 'in combination' Assessment

- 3.3.10 The 'in combination' assessment will build on the assessment of policy and the summary tables provided in the previous stage and will then consider the impacts of SMP policy in combination with all other policies or approved projects yet to be implemented. The specific focus of this stage will relate to the consideration of those plans and projects which are likely to have the same effect as the policies of the SMP2. In the context of the SMP2, this is likely to relate to other plans or projects which may have effects of coastal habitat or processes which support habitat or species. The plans and projects which are considered most relevant to this study are discussed in Section 5 of this document. An assessment for each SMP2 Management Unit will be provided which accounts for the 'in combination' effects of other plans or projects (from the list provided in Section 5) that have similar impacts to that of the specific policy within the Management Unit. An accompanying rationale will be provided to support this.
- 3.3.11 The 'in combination' assessment will be summarised in regard to the overall conclusions which can be drawn to provide a clear summary for each SMP2 Management Unit so that the impacts of the policies within the unit alone, and 'in combination' with other plans and projects is clearly expressed.

Consideration of Preventative Measures and Mitigation

- 3.3.12 If it has been concluded that all of the SMP policies alone or 'in combination' with other plans or projects, would not have an adverse effect on the international sites in question, then the assessment would be concluded at this stage, with a recommendation that the SMP be implemented in its current form. If at the conclusion of the above stages, policies remain, where it cannot be shown that the impacts of policy would have an adverse effect on the integrity of any of the international sites, consideration will then need to be given to how such effects could be avoided in regard to preventative measures and mitigation.
- 3.3.13 Guidance, case studies and examples of best practice would form the basis of the assessment to suggest measures which would need to be taken, to enable policy adoption which would not affect site integrity. At this stage, the determination of feasible measures would be refined in consultation with the SMP2 Client Steering Group; to ensure that suggested measures are acceptable in the shoreline management context and in regard to the impacts of policy. Following this collaborative process, a series of measures would be specified which would clearly demonstrate how adverse impacts have been mitigated or avoided for each relevant policy. It should be recognised at this stage, that at a policy level, preventative measures could be provided



simply, by the provision of additional supporting policy to offset adverse impacts. If policies remain for which preventative measures or mitigation cannot be established, then such policies will be identified and taken forward for further consideration.

At this stage it is suggested that mitigation could involve identification of habitat creation sites either within the International site concerned, or elsewhere. Identification of acceptable mitigation sites would enable no adverse effect on integrity to be determined at the SMP2 (land use plan level), but at the plan implementation stage, the ultimate Appropriate Assessment would need to determine adverse effect on integrity, no alternative solutions, IROPI, and formally identify the offset land as compensatory habitat under Regulation 53. The extent to which mitigation measures need to be secured at the SMP2 stage, in order to enable determination of no adverse effect on site integrity is currently unclear. This issue will need to be resolved in consultation with Natural England and Defra.

A potential source of mitigation (SMP2 level) or compensation (specific proposal level) is the Environment Agency's Habitat creation project. This project is in effect "banking" habitat to compensate for coastal squeeze, and provide opportunities for compensatory habitat under the Habitats Regulations.

3.3.14 Where mitigation and preventative measures are identified as being necessary for determining no adverse effect on site integrity, these measures will need to be incorporated as part of the SMP2.

Determination of Alternative Solutions and Imperative Reasons of Overriding Public Interest

- 3.3.15 As outlined above, if policies have been identified for which preventive measures or mitigation do not avoid their adverse impacts on the integrity of the site(s), such policies will then need to be assessed to determine how these policies are addressed within the Appropriate Assessment and within the SMP2. This consideration follows a two stage process. Firstly, the assessment of alternative solutions needs to be considered. Can the policy in question be replaced by a policy which will meet the requirements of the wider SMP2 and yet avoid any impacts on international sites? The consideration of policy alternatives will require the combined efforts of the Appropriate Assessment project team and the policy officers within the SMP2 Client Steering Group. If policies are then found to lack any viable alternative, the matter of whether the policy is required in the interests of overriding public interest will need to be considered.
- 3.3.16 Claims for policy adoption on the grounds of imperative reasons of overriding public interest (IROPI) need to be carefully considered in regard to Regulations 49 and 53. The procedure for pursuing policy on the grounds of IROPI is well defined in the Regulations and in guidance. The particulars will depend on the actual reasons for the IROPI claim (for example is the policy required on the grounds of social or economic factors, or is it a public health and safety issue?) and the priority attached to the species or habitat in question. Finally claims for IROPI need to be submitted to Central Government with a clear reasoning provided.

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¹ The term *mitigation* habitat is used at the SMP level, as this would not be identified via Regulation 53. However, the SMP and the AA would make it explicit, that at the proposal stage, unless the mitigation measures identified in the SMP and its AA were adopted, it would not be possible to determine no adverse impact on site integrity for the implementation of that SMP policy.



- 3.3.17 Provision of compensatory measures under Regulation 53 is a necessary element in undertaking policies on the basis of IROPI, and the availability of acceptable compensatory measures under Regulation 53 may need to be provided alongside presentation of the case for IROPI, such that the case can be fully considered.
- 3.4 Provision of an Appropriate Assessment Report
- 3.4.1 At the conclusion of the assessment a full account of the analysis for each SMP unit and the preferred policy will be presented in an Appropriate Assessment Report. In addition to the analysis, the report will also include records of consultation with Natural England, their response and any actions subsequent to this. The Appropriate Assessment Report will then be provided to Natural England for formal consultation. Following this formal consultation, any required amendments will be made, and a finalised report including recommendations will be provided to CISCAG (the SMP2 client). Within this report, agreed actions for policy amendment, replacement or modification (if required) will be presented.
- 3.4.2 The likely contents list for the appropriate assessment report will include:
 - Introduction:
 - · Methodology;
 - Consultation anticipated to be with Natural England, Environment Agency, and the RSPB;
 - Assessment of Impacts (direct, indirect, secondary and cumulative);
 - Consideration of Mitigation; and
 - Conclusions.



4 OTHER PLANS AND PROJECTS

4.1 Introduction

4.1.1 A range of envisaged or ongoing plans or projects must be considered in combination with Shoreline Management Plan policies. Any plan or project which has yet to be implemented will need to be considered within an in-combination assessment. Accordingly, the following activities, and any specific proposals (such as wind farms etc) will need to be considered (within this context) during the assessment.

4.2 **Land Use Plans**

- 4.2.1 Land use plans are produced by local authorities, and set out the broad framework for planning and development in the local authority area. The area potentially affected by the Cornwall and Isles of Scilly SMP2 policies is covered by two local authorities, the Council of Isles of Scilly and Cornwall Council. Cornwall Council was recently formed by the amalgamation of 6 local authorities:
 - Caradon District Council;
 - Carrick District Council;
 - Kerrier District Council;
 - North Cornwall District Council:
 - Penwith District Council; and
 - Restormel Borough Council.
- 4.2.2 The main issue for land use plans in the context of shoreline management plans and their compatibility with the Habitats Regulations is where land is allocated for housing, employment or other uses, development of which may prejudice SMP2 policies. For example, housing allocations in areas currently prevented from flooding by flood defence structures or practices would make it more difficult to undertake managed retreat or abandon existing defences. Managed realignment or no active intervention options may be preferred, or necessary in response to coastal squeeze, which may be adversely affecting international sites.
- 4.2.3 Planning Policy Statement (PPS) 25 sets out government policy on development in relation to flood risk. Broadly speaking this seeks to avoid development in flood prone areas, or undertaking development which will enhance flood risk. PPS 25 requires local authorities to undertake Strategic Flood Risk Assessments to assist in developing local plans such that they achieve these objectives.
- 4.2.4 Adherence to PPS 25 guidance will ensure that the likelihood of development occurring which will prejudice SMP2 policies, is minimised. It does not however completely preclude these possibilities, and individual local plans thus need to be examined to identify any constraints which may act "in combination" with SMP2 policies.
- 4.2.5 The site specific allocations of the local authority (or the existing allocations of the former local authorities) will be used for the assessment of in-combination impacts of local development policy.

4.3 Maintenance Dredging

4.3.1 Given the number of harbours and navigational channels for both recreational and commercial vessels along the coast, maintenance dredging takes place. The Centre for Environment Fisheries and Aquaculture Science (CEFAS) is responsible for administering licences for maintenance dredging under the Food and Environmental Protection Act (FEPA) (1985). Further details of FEPA consented dredging activities will be sought from CEFAS for consideration in the in-combination analysis.

4.4 Activities Regulated and Consented by the Environment Agency.

- 4.4.1 The Environment Agency regulates and consents a range of activities that have the potential to affect site integrity. Relevant consents include discharge and abstraction consents, IPPC licences and waste licences. Although most new applications received by the Environment Agency for these licences are reviewed under Regulation 48 of the Habitats Regulations, many of these applications are granted in perpetuity, for continuously operated activities. In order to ensure that such activities are compatible with the requirements of the Habitats Regulations, specifically to ensure that these can be determined as having no adverse effect on integrity, the Environment Agency is in the process of reviewing consents via the Regulation 50 Review of Consents (RoC) Project. Outcomes of the RoC process for European sites within the Cornwall and Isles of Scilly SMP2 area will be obtained, and will establish whether and which Environment Agency consented activities are unable to be determined as not adversely affecting site integrity, and the actions required in order to rectify any non-compliant consents.
- 4.4.2 The outcomes of the RoC will be requested from the Environment Agency, such that these can be incorporated into the in-combination assessment.



5 SHORELINE MANAGEMENT OPTIONS SCOPED IN OR OUT

5.1 Introduction

5.1.1 The key focus of the Appropriate Assessment for each policy option of the Cornwall and Isles of Scilly SMP2 is presented in **Table 5.1**, which scopes in or out the potential issues associated with the various policy options on the SPA, SAC and Ramsar sites of the study area based on **Section 2** and **Appendix B.**

Table 5.1 Key Focus of the Appropriate Assessment for each SMP2 Policy Option

Shoreline Management Policy Options	Scoped In	Scoped Out
Hold the existing defence line:	Impacts to Plymouth Sound and Estuaries SAC, Polruan to Polperro SAC, Fal and Helford SAC, the Lizard SAC, the Isles of Scilly Complex SAC, the Isles of Scilly SPA, Godrevy Head to St Agnes, and Tintagel-Marsland-Clovelly Coast SAC from hold the line where this results in the construction of defences which obscure the key habitat features.	
	Impacts to Fal & Helford SAC, The Lizard SAC, the Isles of Scilly Complex SAC, Penhale Dunes SAC, River Camel SAC, and Tintagel-Marsland-Clovelly Coast SAC as a result of potential loss of primary habitat extent through the effects of coastal squeeze associated with holding the existing defence line. Habitats likely to be affected include intertidal mudflat and sandflat, sand dunes, reedbeds, coastal and floodplain grazing marsh, and saltmarsh.	
	A potential impact on Marazion Marsh SPA due to the long term hydrology changes resulting from constrained defences and sea level rise. These could result in changes to the supporting habitats within the site, and indirect effects on the bird species for which the site is designated.	



Shoreline	O a m a d la	Oceans I Ocea
Management Policy Options	Scoped In	Scoped Out
Advance the existing defence line:	Impacts to Plymouth Sound and Estuaries SAC, Polruan to Polperro SAC, Fal and Helford SAC, The Lizard SAC, the Isles of Scilly Complex SAC, the Isles of Scilly SPA, Godrevy Head to St Agnes SAC, Penhale Dunes SAC, and Tintagel-Marsland-Clovelly Coast SAC from advance the line where this results in the construction of defences which obscure the key habitat features, or alter coastal processes and indirectly affect primary habitats and their features.	
	Impacts to Fal & Helford SAC, The Lizard SAC, the Isles of Scilly Complex SAC, Penhale Dunes SAC, River Camel SAC, and Tintagel-Marsland-Clovelly Coast SAC as a result of potential loss of primary habitat extent through the effects of coastal squeeze associated with holding the existing defence line. Habitats likely to be affected include intertidal mudflat and sandflat, sand dunes, reedbeds, coastal and floodplain grazing marsh, and saltmarsh. A potential impact on Marazion Marsh SPA due to the long term hydrology changes resulting from constrained defences and sea level rise. These could result in changes to the supporting habitats within the site, and indirect effects on the bird species for which the site is designated.	
Managed realignment:	Impacts to Plymouth Sound and Estuaries SAC, Polruan to Polperro SAC, sea cliff habitat of the Fal and Helford SAC, the Lizard SAC, the Isles of Scilly SPA, Godrevy Head to St Agnes SAC, Penhale Dunes SAC, and Tintagel-Marsland-Clovelly Coast SAC from managed realignment where this results in the loss of habitat, or results in construction of set back defences which obscure the key habitat features, or alter coastal processes and indirectly affect primary habitats and their features. Impact resulting from the loss of supporting freshwater habitats within Marazion Marsh SPA, which could potentially affect the population of the bird species for which the site was designated.	No impacts are expected on the Fal and Helford SAC, Isles of Scilly Complex SAC, and the River Camel SAC as managed realignment would create additional habitat outwith the sites, which would enable the sites primary and supporting habitats to retreat or develop into as a result of sea level rise and coastal squeeze.



Shoreline Management Policy Options	Scoped In	Scoped Out
No active intervention:	Impact on Marazion Marsh due to the inability for the freshwater habitats to retreat landward in line with sea level rise, and the subsequent loss of freshwater habitats that support the bird population for which the site is designated. Impact on the Isles of Scilly SPA, Godrevy Head to St Agnes SAC, and Penhale Dunes SAC if erosion results in the loss of primary or supporting habitat which cannot retreat inland due to manmade assets/structures.	No impacts are expected on Plymouth Sound and Estuary SAC, Polruan to Polperro SAC, Fal and Helford SAC, the Lizard SAC, the Isles of Scilly Complex SAC, River Camel SAC, and Tintagel-Marsland-Clovelly Coast SAC from no active intervention, as the interests of the sites are set within the context of natural coastal processes, and losses as result of those are acceptable. These sites do not have habitats that are constrained by manmade structures or activity and hence no impact is expected.



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6 CONCLUSIONS

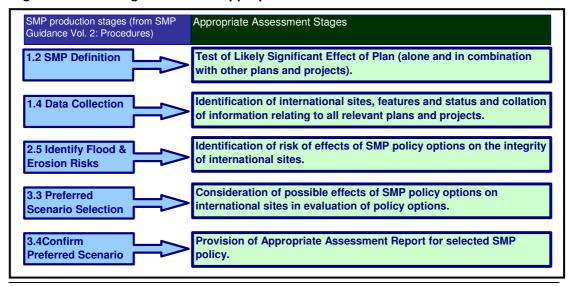
6.1 Introduction

- 6.1.1 This report has provided four basic tasks to determine the scope of the assessment:
 - An account of the SPA, SAC and Ramsar designated sites of the study area including reasons for their designations, factors influencing the condition of the sites and the sites conservation objectives and sensitivities (see Section 2 and Appendix 1);
 - Sensitivity of the designated sites and their features and the likely significant
 effects from shoreline management policy options (presented in **Table 2.1** and
 detailed in **Appendix 2**);
 - Identification of key plans and projects which need to be considered within the Appropriate Assessment (see **Section 4**); and
 - Summarised the potential issues associated with the various policy options on the SPA, SAC and Ramsar sites which require consideration (based on **Section 2**, **Appendix 2** and presented in **Table 5.1**).

6.1 Next Stage: Where to From Here?

- 6.1.1 Task 1.2 in **Figure 6.1** has already been undertaken as part of this significance assessment document (**Section 2** and **Appendix 2**), with the conclusion that the SMP2 as a whole has a likely significant effect on the majority of *Natura 2000* sites. Part of stage 1.4 has also been undertaken, in that key plans and projects with potential to act "in combination" with the SMP2 have been identified albeit that these have not been scrutinised in detail at this stage.
- 6.1.2 Further development of the Appropriate Assessment will be in accordance with **Figure 6.1**, and will re-commence once SMP2 policy development of the SMP2 is at a more advanced stage. This significance assessment document is therefore offered in an attempt to define the overall approach and specific detail of the Appropriate Assessment. It will thus enable any outstanding issues to be identified such that they can be incorporated within the Appropriate Assessment when it is ultimately undertaken for the Cornwall and Isles of Scilly SMP2.

Figure 6.1 Integration of the Appropriate Assessment Process into SMP2





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7 **REFERENCES**

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8 GLOSSARY OF TERMS

Appropriate Assessment (AA): An appropriate assessment determines whether a likely significant effect will occur as a result of a proposed plan, policy or project. Also referred to as a Habitats Regulations Assessment (HRA).

Biodiversity Action Plan (BAP): An agreed plan for a habitat or species, which forms part of the UK's commitment to biodiversity. For further information consult the BAP website: http://www.ukbap.org.uk

Birds Directive: European Community Directive (79/409/EEC) on the conservation of wild birds. Implemented in the UK as the Conservation (Natural Habitats, etc.) Regulations (1994). For further information consult Her Majesties Stationary Office website: http://www.hmso.gov.uk/si/si1994/Uksi 19942716 en 1.htm

Candidate Special Area for Conservation (cSAC): SACs are internationally important sites for habitats and/or species, designated as required under the EC Habitats Directive. A candidate SAC is currently under consideration for its inclusion under the EC Habitats Directive. SACs are protected for their internationally important habitat and non-bird species. They also receive SSSI designation under The Countryside and Rights of Way (CRoW) Act 2000; and The Wildlife and Countryside Act 1981 (as amended). For further details refer to the following The Joint Nature Conservation Committee website http://www.jncc.gov.uk

Competent Authority: The organisation which prepares a plan or programme subject to the Directive and is responsible for the AA.

Department for Communities and Local Government (DCLG): The department that is responsible for local communities and social issues. For further information please view the website: //www.communities.gov.uk/corporate/

Habitats Directive: The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992) requires EU Member States to create a network of protected wildlife areas, known as Natura 2000, across the European Union. This network consists of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), established to protect wild birds under the Birds Directive (Council Directive 79/409/EEC of 2 April 1979). These sites are part of a range of measures aimed at conserving important or threatened habitats and species.

Habitats Regulations Assessment (HRA): An assessment to determine whether a likely significant effect will occur as a result of a proposed plan, policy or project. Also referred to as an Appropriate Assessment (AA).

Housing Market Area (HMA): A geographical area which is relatively self-contained in terms of housing demand; i.e. a large percentage of people moving house or settling in the area will have sought a dwelling only in that area.

Indicator: A measure of variables over time often used to measure achievement of objectives.

Local Authority Development Plans: These statutory land development plans generally cover a 10-year period from when they are adopted. However, the local authorities currently review these plans every five years. A District Council and a Unitary Authority will produce a Local Plan and a County Council produce a Structure Plan. A Structure Plan guides the Local Plans of several District Councils.

Local Biodiversity Action Plan (LBAP): A local agenda (produced by the local authority) with plans and targets to protect and improve biodiversity and achieve sustainable development.

Local Development Documents (LDD): These documents make up the Local Development Framework (LDF).

Mitigation: Used in this Guide to refer to measures to avoid, reduce or offset significant adverse effects on the environment.

Objective: A statement of what is intended, specifying the desired direction of change in trends.

Plan or Programme: For the purposes of this Guide, the term "plan or programme" covers any plans or programmes to which the Directive applies.

Ramsar Site: The Ramsar Convention on Wetlands of International Importance, especially as Waterfowl Habitat (1971) requires the UK Government to promote using wetlands wisely and to protect wetlands of international importance. This includes designating certain areas as Ramsar sites, where their importance for nature conservation (especially with respect to waterfowl) and environmental sustainability meet certain criteria. Ramsar sites receive SSSI designation under The Countryside and Rights of Way (CRoW) Act 2000 and The Wildlife and Countryside Act 1981 (as amended). Further information can be located on the Ramsar convention on wetlands website: http://www.ramsar.org/

Regional Planning Guidance (RPG): Planning Guidance issued for the South West by the Government Office for the South West Regional Assembly.

Regional Spatial Strategy (RSS): This will replace the RPG. It sets out a regional framework that addresses the 'spatial' implications of broad issues like healthcare, education, crime, housing, investment, transport, the economy and environment.

Scoping: The process of deciding the scope and level of detail of an AA, including the environmental effects and alternatives which need to be considered, the assessment methods to be used, and the structure and contents of the Appropriate Assessment Report.

Shoreline Management Plan (SMP): Non-statutory plans to provide sustainable coastal defence policies (to prevent erosion by the sea and flooding of low-lying coastal land) and to set objectives for managing the shoreline in the future. They are prepared by us or maritime local authorities, acting individually or as part of coastal defence groups.



Site of Special Scientific Interest (SSSI): Sites of Special Scientific Interest (SSSIs) are notified under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way (CRoW) Act 2000 for their flora, fauna, geological or physiographical features. Notification of a SSSI includes a list of work that may harm the special interest of the site. The Wildlife and Countryside Act 1981 (provisions relating to SSSIs) has been replaced by a new Section 28 in Schedule 9 of the CROW Act. The new Section 28 provides much better protection for SSSIs. All cSACs, SPAs and Ramsar sites are designated as SSSIs. For further information refer to English Nature's website: http://www.english-nature.com

Special Protection Area (SPA): A site of international importance for birds, designated as required by the EC Birds Directive. SPAs are designated for their international importance as breeding, feeding and roosting habitat for bird species. The Government must consider the conservation of SPAs in all its planning decisions. SPAs receive SSSI designation under The Countryside and Rights of Way (CRoW) Act 2000 and The Wildlife and Countryside Act 1981 (as amended). For further details refer to the European Commission: website: http://europa.eu.int/ and the Joint Nature Conservation Committee website.

Structure Plan: A statutory plan made up of part of the development Plan, prepared by County Councils or a combination of unitary authorities, containing strategic policies that cover main planning issues over a broad area and provide a framework for local planning, including Unitary Development Plans (UDPs).

Sustainability: A concept, which deals with man's effect, through development, on the environment. Sustainable development is 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundland, 1987). The degree to which flood risk management options avoid tying future generations into inflexible or expensive options for flood defence. This usually includes considering other defences and likely developments as well as processes within a catchment. It should also take account of, for example, the long-term demands for non-renewable materials.



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9 LIST OF ABBREVIATIONS

AA Appropriate Assessment

BAP Biodiversity Action Plan

DCLC Department for Communities and Local Government

HRA Habitats Regulations Assessment

IROPI Imperative Reasons of Overriding Public Interest

JNCC Joint Nature Conservation Committee

LBAP Local Biodiversity Action Plan

LDF Local Development Framework

RSPB Royal Society for the Protection of Birds

Ramsar The Ramsar Convention on Wetlands of International Importance

RPG Regional Planning Guidance

RSS Regional Spatial Strategy

SAC Special Area for Conservation

SMP Shoreline Management Plan

SPA Special Protection Area

SSSI Site of Special Scientific Interest



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10 APPENDIX A

Natura 2000 Site Descriptions and Interest Features

Special Protection Areas (SPAs)	Site Features
MARAZION MARSH SPA	Marazion Marsh is located on the south coast of Cornwall to the east of Penzance at the head of Mounts Bay. The marsh is at the mouth of a wide coastal valley, separated from the sea by a shingle bar with fringing sand dunes. The marsh has developed over Mylor Beds of Lower Devonian age, now overlain by alluvial deposits and peat. Streams, pools and dense reedbed grade into dense willow <i>Salix</i> spp. carr, with some unimproved grassland and scrub on the drier margins. Plants include Wavy St John's-wort <i>Hypericum undulatum</i> , Yellow Centaury <i>Cicendia filiformis</i> and Pillwort <i>Pilularia globulifera</i> , and there is a diverse assemblage of breeding dragonflies. The marsh is important for passage and wintering birds associated in particular with the extensive reedbed.
	 Article 4.1 qualification (79/409/EEC) Aquatic Warbler Acrocephalus paludicola – on passage (9.0% of the GB population (Count mean 1994-98).
	 Bittern Botaurus stellaris, wintering (2.0% of the GB wintering population).
ISLES OF SCILLY SPA	The Isles of Scilly form an archipelago of over 200 low-lying granite islands and rocks situated in the South-West Approaches 45 km south-west of Land's End at the extreme south-west of England. The islands included within the SPA support a breeding seabird assemblage of European importance. The isolated nature of the islands and rocks, together with their low levels of disturbance and predation, makes them particularly suitable for nesting seabirds such as Storm Petrel <i>Hydrobates pelagicus</i> and Lesser Blackbacked Gull <i>Larus fuscus</i> . It should be noted that the SPA boundary only encompasses those areas used for nesting. The vast majority of the feeding areas used by the seabirds are marine waters outside the SPA.
(401.4 bo)	 Article 4.1 qualification (79/409/EEC) Storm Petrel – breeding (6.4% of the GB breeding population (Count as at 1999).
(401.4 ha)	 Article 4.2 qualification (79/409/EEC) Lesser Black-backed Gull – breeding (2.9% of the GB breeding Western Europe/Mediterranean/Western Africa population (Count as at 1999).
	 During the breeding season, the area regularly supports 26,616 individual seabirds (Count as at 1999) including: Great Blackbacked Gull <i>Larus marinus</i>, Shag <i>Phalacrocorax aristotelis</i>, Lesser Black-backed Gull, and Storm Petrel.

Omenial Av.	
Special Areas of Conservation	Description of interests
(SACs)	Description of interests
ISLES OF SCILLY COMPLEX (26,851.0 ha)	Annex I habitats (as primary reason for selection) Sandbanks which are slightly covered by sea water all the time: The Scilly archipelago, off the south-west tip of England, encompasses extensive sublittoral sandy sediments, which, between the islands, are contiguous with the intertidal sandflats. They are important in the UK for the extent and diversity of their associated communities. In particular, their isolation and the presence of oceanic water contribute to the special nature of the site, which is characterised by shallow sandy sediments with low silt
	content and by the fully marine salinity. There are rich communities present on the tide-swept sandbanks in the narrow channels between the islands and in the deeper, more stable, wave-sheltered sediments. The fauna of these sediments includes tanaid crustaceans, a diversity of polychaete worms, and various echinoderms. The shallow sublittoral sediments are colonised by the most extensive and best-developed eelgrass <i>Zostera marina</i> beds in southern England (Hocking & Tompsett 2001). These beds have a rich associated flora and fauna of algae, hydroids, sea anemones, molluscs and fish. Fauna with warm-water affinities include the trumpet anemone <i>Anthopleura ballii</i> .
	Mudflats and sandflats not covered by seawater at low tide: The Isles of Scilly archipelago supports extensive areas of undisturbed intertidal sandflats in the extreme south-west of the UK. The islands are particularly important for exceptionally rich communities occurring in coarse sediments, including clean sand, a substrate that is usually poor in species. Although sheltered, the sediments include little mud because the surrounding seas have a low suspended sediment concentration, resulting from the islands' isolation and the presence of oceanic water. The sandflats exposed at low tide between the northern islands are of international marine nature conservation importance, owing to their extent and diversity and the presence of species rarely found elsewhere in the intertidal. The lower shore sandflats are particularly notable, for they include the fringes of the most extensive and diverse beds of eelgrass Zostera marina known in southern England (Hocking & Tompsett 2001), with an unusually speciesrich associated biota, including various seaweeds and fish and rich sediment communities of anemones, polychaete worms, bivalve molluscs and burrowing echinoderms. These include many species restricted to the sublittoral elsewhere in the UK. Many southern species are present, often in large numbers, including some, such as the hermit crab Cestopagurus timidus and the spiny cockle Acanthocardia aculeata, that are recorded only rarely in the UK.
	Reefs : The Isles of Scilly are surrounded by reefs and rocky islets, some only extending into the shallow sublittoral, others extending well beyond 50 m depth. The location of the islands, exposed to the full force of the Atlantic, leads to the development of extremely exposed communities on west-facing reefs, whilst on the east-facing coast, more sheltered and silted reefs occur. The south-westerly position of the islands leads to a range of warm-water species being present, including sunset cup-coral <i>Leptopsammia pruvoti</i> , pink sea-fans <i>Eunicella verrucosa</i> , and Weymouth carpet-coral <i>Hoplangia durotrix</i> .
	Annex II species (as primary reason for selection) There are historical records of Shore Dock from seven of the larger islands, as well as from several small rocky outcrops and the eastern isles. Recent surveys suggest that it may now be restricted to just four islands (Tresco, Annet, Samson, Tean). Despite recent losses (and possibly earlier overestimates of its abundance), the Isles of Scilly remain an important

Special Areas of	
Conservation	Description of interests
(SACs)	
	stronghold of the species at the south-western limit of its UK range. It is thought likely that the species is in long-term decline here, probably due to sea-level rise, increased storminess and 'coastal squeeze'. Recent population data are lacking for some colonies, but it is thought that the total population, estimated in 1994 to be 165 plants, may now be rather less than this, perhaps fewer than 100 plants.
	Annex II species (as a qualifying feature) Grey Seal Halichoerus grypus.
PLYMOUTH SOUND & ESTUARIES	Annex I habitats (as primary reason for selection) Sandbanks: Plymouth Sound and Estuaries, on the south-west coast of England, has been selected for its extensive areas of sublittoral sandbanks, which consist of a range of sandy sediments within the inlet and on the open coast. These sediments include tide-swept sandy banks in estuarine habitats, sandy muds north of the Breakwater, muddy sands in Jennycliff Bay, fine sands with eelgrass Zostera marina and a rich associated flora and fauna in the Yealm entrance, as well as tide-swept sandy sediments with associated hard substrates colonised by distinctive communities of algae and invertebrates.
(6402.03 ha)	Estuaries : Plymouth Sound and Estuaries is representative of ria estuaries in south-west England. The Rivers Tamar and Lynher are linked at their mouths. The upper parts of the Tamar and Lynher include a very well-developed estuarine salinity gradient. As a consequence, they exhibit one of the finest examples in the UK of changing estuarine communities with changing salinity regime. Rocky reefs in low salinity estuarine conditions far inland on the Tamar are very unusual and support species such as the <i>hydroid Cordylophora caspia</i> . The Tamar is one of few estuaries where zonation of rocky habitats (intertidal and subtidal) can be observed along an estuarine gradient.
	Large shallow inlets and bays: Plymouth Sound and Estuaries on the south-west coast of England includes the rias of the rivers Tavy, Tamar, Lynher and Yealm. The first three of these join at the wide, rocky inlet of Plymouth Sound and the Yealm enters the adjacent Wembury Bay. The Yealm has good examples of habitats and communities characteristic of sheltered marine inlets with little freshwater input, including a range of sponge- and worm-dominated communities on lower shore mixed sediments. The Plymouth Sound complex has a high diversity of habitats and communities characteristic of different salinities, in contrast to the Fal and Helford. Some of these support extremely rich marine flora and fauna, which include abundant southern Mediterranean-Atlantic species rarely found in Britain, such as the carpet coral <i>Hoplangia durotrix</i> . Particularly notable habitats include (i) littoral and sublittoral limestone reefs extensively bored by bivalves and harbouring a rich fauna; (ii) offshore sublittoral tide-swept reefs; (iii) tide-swept limestone channels with animal communities rarely encountered in other marine inlets; and (iv) subtidal sediments with rich and often diverse invertebrate communities.
	Reefs : Plymouth Sound in south-west England has a wide variety of intertidal and subtidal reef biotopes. Of particular importance are the limestone reefs running along the northern shore from West Hoe to Batten Bay, which are one of only two coastal areas in south-west Britain with Devonian limestone. This relatively soft rock is extensively bored by the bivalve <i>Hiatella arctica</i> and the <i>spionid</i> worms <i>Polydora spp.</i> , and harbours a rich fauna. In the sublittoral this steep-sided, wave-sheltered reef is dominated by a dense hydroid and <i>bryozoan</i> turf with anemones and



Special Areas of	
Conservation (SACs)	Description of interests
	ascidians. A number of rarely-recorded low shore biotopes also occur along the shores from Devil's Point to Batten Bay, at Wembury, Penlee, Hoo Lake Point, and in the mouth of the River Yealm. The sublittoral is of particular importance for its kelp- and animal-dominated habitats. The area off Batten Bay contains the south-western kelp <i>Laminaria ochroleuca</i> , together with other uncommon species including the rare sea slug <i>Okenia elegans</i> and trumpet anemone <i>Aiptasia mutabilis</i> . Most circalittoral rocky reefs occur in areas of the Outer Sound, such as off Wembury, the Mewstone, Penlee Point and south of the breakwater. In the approaches to Plymouth Sound, abundant populations of the slow-growing, long-lived, nationally important pink sea-fan Eunicella verrucosa occur.
	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>): This site is representative of a ria system in south-west England. The well-developed salinity gradient supports Atlantic salt meadow together with natural transitions to brackish and freshwater communities, including reedbeds supporting the only UK population of triangular club-rush <i>Schoenoplectus triqueter</i> . Some stands of saltmeadow are structurally and botanically diverse and include sea club-rush <i>Scirpus maritimus</i> and saltmarsh rush <i>Juncus gerardii</i> , with red fescue <i>Festuca rubra</i> , sea rush <i>J. maritimus</i> and thrift <i>Armeria maritima</i> at higher levels. The locally common parsley water-dropwort <i>Oenanthe lachenalii</i> is also found in some parts of the site, and there are stands of sea-purslane <i>Halimione portulacoides</i> , which is unusual in Cornwall. The Atlantic salt meadows make a vital contribution to the structure and function of the estuary and the other habitats within it.
	Annex I habitats (as a qualifying feature) Mudflats and sandflats: Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.
	Annex II species (as primary reason for selection) Shore Dock: One of the chief rocky-shore strongholds for Shore Dock on the UK mainland, in 1999 comprising 15 colonies and 42 plants. The site also holds a sizeable area of additional suitable habitat.
	Annex II species (as a qualifying feature) Allis shad (Alosa alosa).



Special Areas of Conservation (SACs)	Description of interests
POLRUAN TO POLPERRO	Annex I habitats (as primary reason for selection) Vegetated sea cliffs: This site on the south coast of Cornwall represents a range of cliff habitats influenced by the complex lithological variation and tectonic structure at this location. The cliff habitats are particularly important for their assemblage of plants and the site also supports the Annex II species 1441 Shore Dock. The cliffs and slopes support a variety of maritime rock crevice and ledge communities, with maritime and submaritime grasslands and flushes. In places the lower cliffs, backshore and cliff crevices are influenced by freshwater seepages, flushes and springs. The maritime grasslands are found alongside or amongst areas of scrub and bracken <i>Pteridium aquilinum</i> , and the species composition reflects the variation in the calcareous influence of the underlying strata. Extensive areas of unimproved grassland are present on the cliff tops and headlands. The exposure at this site is less than that experienced on the north coast of
	Cornwall, and provides an important contrast to the other Cornish sites selected for this feature. Annex I habitats (as a qualifying feature) European dry heaths: Are present as a Annex I habitat qualifying feature.
	Annex II species (as primary reason for selection) Shore Dock: An important rocky-shore site for Shore Dock, near to the centre of its UK distribution. In 1999 the site supported 13 widely scattered colonies and at least 30 plants, along with numerous small pockets of additional suitable habitat.

Special Areas of	
Conservation	Description of interests
(SACs)	
PENHALE DUNES	Annex I habitats (as primary reason for selection) Fixed dunes with herbaceous vegetation ('grey dunes'): Penhale Dunes, like Braunton Burrows, is in south-west England and also has a large area of fixed dunes with herbaceous vegetation on an extensive and exposed calcareous dune system where active geomorphological and successional processes occur. However, of particular interest are the communities developing on sand overlying the adjacent hillsides, which have been blown inland by strong winds. In this respect the site is functionally similar to Invernaver, on the north coast of Scotland, though the vegetation is very different owing to climatic differences.
(621.34 ha)	Humid dune slacks: Penhale Dunes in south-west England is an extensive and exposed calcareous dune system where active geomorphological and successional dune processes occur. Humid dune slacks with an interesting flora are well-developed in the northern section where they often form marshy areas or pools. The drier slacks support short, rabbit <i>Oryctolagus cuniculus</i> -grazed turf with species such as silverweed Potentilla anserina, common centaury <i>Centaurium erythraea</i> and pyramidal orchid <i>Anacamptis pyramidalis</i> . The damper slacks are colonised by taller herbs including meadowsweet <i>Filipendula ulmaria</i> , water mint <i>Mentha aquatica</i> , great willowherb <i>Epilobium hirsutum</i> and water horsetail <i>Equisetum palustre</i> . The dune slacks also support a number of uncommon plant species including populations of the Annex II species 1441 Shore Dock for which the site is also selected. Other lowlying wetlands within the site are important for sedge and fern-dominated communities.
	Annex I habitats (as a qualifying feature) Shifting dunes along the shoreline with Ammophila arenaria (`white dunes`) & Dunes with Salix repens ssp. argentea (Salicion arenariae): Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.
	Annex II species (as primary reason for selection) Petalwort Petalophyllum ralfsii: Penhale's extensive dune system supports a large population of Petalwort and is one of three sites selected to represent the species in south-west England. Recorded here since 1919, it occurs in damp, calcareous dune slacks.
	Shore Dock: Penhale Dunes is an important sand-dune site for Shore Dock, with possibly the largest concentration of plants on the UK mainland. More than 50 plants were recorded at this site in the late 1980s; in 1994 the number had apparently declined to 33 fruiting plants but, following the discovery in the late 1990s of new plants away from the previously-known colonies, the total population is now thought to comprise >70 plants.
	Early Gentian <i>Gentianella anglica</i> : This site supports strong populations of Early gentian. Populations of Early <i>gentian</i> in Cornwall are now viewed as mixed populations of G. <i>anglica</i> ssp. <i>anglica</i> and its 'hybrid' with autumn gentian <i>Gentianella amarella</i> , G. <i>x davidiana</i> (Rich et al. 1997). They were formerly regarded as a subspecies, G. <i>anglica</i> ssp. <i>cornubiensis</i> (Pritchard 1959). Plants at Penhale Dunes have been found to range from pure G. anglica through a range of intermediate forms to pure G. <i>amarella</i> (Wilson 1999).

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Special Areas of Conservation	Description of interests
(SACs)	2000 inplient of interests
THE LIZARD	Annex I habitats (as primary reason for selection) Vegetated sea cliffs: The Lizard, at the extreme south-west tip of England, has been selected for its unusual representation of base-rich igneous and acid metamorphic cliffs. The combination of its complex geology and a southern location has resulted in the diverse nature of the plants and plant communities found here, many of which are particularly species-rich and some of which are rare in the UK. The site includes a typical sequence of cliff vegetation, with a variety of truly maritime plants, which grades into grazed and ungrazed communities on exposed cliffs with dense red fescue and wild asparagus Asparagus officinalis ssp. prostratus. There are also transitions to heathland, normally dominated by heather and bell heather, though in addition the Lizard has extensive heath rich in the rare Cornish heath.
(3257.11 ha)	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.: The coastal peninsula of the Lizard in south-west England supports a nationally unique series of oligo-mesotrophic waterbodies in which high base-status is not due to limestone or shell-sand. The Lizard is partly underlain by igneous serpentine rock which gives rise to calcium-deficient ground waters that are rich in magnesium. Groundwater drains from adjoining wet and dry serpentine heaths to feed the oligo-mesotrophic waterbodies in which another unusual feature is the occurrence of stoneworts <i>Chara</i> species typical of calcareous lakes, together with species normally associated with acid conditions, such as bog pondweed Potamogeton polygonifolius. Stoneworts present include three Red Data Book species – <i>Chara baltica</i> , C. <i>curta</i> and C. <i>fragifera</i> .
	Mediterranean temporary ponds: There are widespread examples of the serpentine variant of Mediterranean temporary ponds on the Lizard heaths. A number of rare species, including chives, dwarf rush and land quillwort, occur in this habitat type. The acid pool type is the main locality on the Lizard for an important assemblage of rare species, including pigmy rush, three-lobed crowfoot and yellow centaury. A number of these pools support important invertebrate populations, including the water beetles <i>Graptodytes flavipes</i> and <i>Dryops striatellus</i> . However, in many areas the habitat type is much reduced, as trackways that once ensured the creation of the pools have fallen into disuse.
	Northern Atlantic wet heaths with <i>Erica tetralix</i> : The Lizard peninsula in the extreme south-west of England has a unique type of wet heath, NVC type H5 <i>Erica vagans – Schoenus nigricans</i> heath. This wet heath occurs extensively on poorly-drained soils derived from ultra-basic serpentine and gabbro. It contains unusual mixtures of species characteristic of acid soils growing with species typical of base-rich soils.
	European dry heaths : The typical inland, dry heathland on the Lizard is NVC type H4 <i>Ulex gallii – Agrostis curtisii</i> heath, sometimes called 'short heath', which differs from other dry heaths in the area which are Annex I type 4040 Dry Atlantic coastal heaths with <i>Erica vagans</i> . These heathlands are dominated by heather and bell heather. Western gorse <i>Ulex gallii</i> , Cornish heath, cross-leaved heath <i>Erica tetralix</i> , purple moorgrass <i>Molinia caerulea</i> , and bristle bent can be locally dominant. Good stands of this vegetation type are found on extensive loess deposits.
	Dry Atlantic coastal heaths with <i>Erica vagans</i> : All good-quality areas of dry Atlantic coastal heaths with <i>Erica vagans</i> on the Lizard peninsula in south-west England are included in this site. The full range of structural and floristic variation within NVC type H6 <i>Erica vagans – Ulex europaeus</i>

Special Areas of	
Conservation	Description of interests
(SACs)	•
GODREVY HEAD TO ST AGNES	heath is covered, ranging from cliff-top heaths rich in maritime species, such as spring squill <i>Scilla verna</i> , to more inland heaths containing abundant bristle bent. Annex I habitats (as primary reason for selection) Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i> : This site is characterised by maritime 4030 European dry heaths, but along the Chapel Porth valley it supports stands of Dorset heath <i>Erica ciliaris</i> . At this site the species occurs on drier substrates than in Dorset.
(128.07 ha)	European dry heaths : The dry heathland in this site represents typical examples of wind-pruned, 'waved' H4 <i>Ulex gallii – Agrostis curtisii</i> and H8 <i>Calluna vulgaris – Ulex gallii</i> heath, with some maritime features. Several noteworthy species occur in the site, including bristle bent <i>Agrostis curtisii</i> , red-flowered kidney vetch <i>Anthyllis vulneraria</i> var. <i>coccinea</i> , Portland spurge <i>Euphorbia portlandica</i> and hairy greenweed <i>Genista pilosa</i> . Scattered areas of 4020 Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i> also occur.
	Annex II species (as primary reason for selection) Early gentian Gentianella anglica: Although not one of the largest populations, this site is considered to be important because it is representative of early gentian on a non-calcareous substrate in the extreme west of its range. Populations in Cornwall were formerly regarded as a subspecies, G. anglica ssp. cornubiensis (Pritchard 1959) but are now viewed as mixed populations of G. anglica ssp. anglica and G. x davidiana, its 'hybrid' with autumn gentian Gentianella amarella (Rich et al. 1997).
TINTAGEL- MARSLAND- CLOVELLY COAST (2429.84 ha)	Annex I habitats (as primary reason for selection) Vegetated sea cliffs: This site represents an extensive length of largely hard coastal cliff in south-west England, with a range of maritime influences and vegetation developed on hard neutral to acidic sedimentary rocks. It demonstrates a range of vertical or near-vertical cliffs with intervening slumped sections. The greater part of this very long site, totalling approximately 60 km, is west-facing, fully exposed to Atlantic storms and therefore strongly maritime in character. The section east of Hartland Point faces north and north-east and is relatively sheltered. Inland of the crevice and grassland communities, maritime heath and short coastal grassland with wild thyme Thymus polytrichus and spring squill Scilla verna are particularly significant, and locally these show transitions to scrub and woodland in the adjacent valleys. This includes an unusual wind-pruned cliff woodland, the Dizzard, with an exceptionally rich lichen flora.
	Old sessile oak woods with <i>llex</i> and <i>Blechnum</i> in the British Isles: Stretches of old sessile oak wood occur at various points along this section of coast. The trees are frequently wind-pruned, sometimes to the point where they are barely taller than the heather <i>Calluna vulgaris</i> . The oak communities include small patches of richer ash <i>Fraxinus excelsior</i> and alder <i>Alnus glutinosa</i> woodland. The bryophyte and lichen assemblages are particularly rich, and the Atlantic influence is also shown in the abundance of hay-scented buckler-fern <i>Dryopteris aemula</i> . Annex I habitats (as a qualifying feature) European dry heaths: Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.

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Special Areas of Conservation	Description of interests
(SACs)	Description of interests
FAL & HELFORD	Annex I habitats (as primary reason for selection) Sandbanks: This is a sheltered site on the south-west coast of England, with a low tidal range and a wide range of substrates resulting in biologically one of the richest examples of sandbanks in the UK. Sublittoral sandbanks are present throughout much of the ria system and Falmouth Bay. There are particularly rich sublittoral sand invertebrate communities with eelgrass Zostera marina beds near the mouth of both the Fal and Helford and in some channels of the rias, such as the Percuil River and Passage Cove. Of particular importance are the maerl (<i>Phymatolithon calcareum</i> and <i>Lithothamnion corallioides</i>) beds that occur in the lower Fal on St Mawes Bank, and the extensive areas of maerl gravel which extend throughout the Carrick Roads and Falmouth Bay. These are the largest beds in south-west Britain and harbour a rich variety of both epifaunal and infaunal species, including some which are rarely encountered, such as
(666.116.114)	Mudflats and sandflats: This area supports examples of sheltered intertidal mudflats and sandflats representative of south-west England, and is particularly recognised for the importance of the species living in the sediments, including amphipods, polychaete worms, the sea cucumber Leptopentacta elongata and bivalve molluscs. Most of the shores of the Fal and Helford rias, and their upper reaches, are fringed by sandflats and mudflats. Owing to the sheltered nature of the site, the sediments are stable as well as being diverse, and include muds, muddy sand and clean sand. These support particularly rich and nationally important sediment communities in the Fal/Ruan estuary, Percuil River and in Passage Cove, including beds of dwarf eelgrass Zostera noltei and diverse invertebrate communities.
	Large shallow inlets and bays: This site is a ria system in south-west England that supports a wide range of communities representative of marine inlets and shallow bays. The rias of the Fal and Helford have only a low freshwater input and as a result the area contains a range of fully marine habitats from extremely sheltered in the inlets to the wave-exposed, tide-swept open coast. There is a particularly diverse algal flora and a number of warm-water species are present. The area supports extensive and rich sediment communities, which include the largest and most south-westerly maerl <i>Phymatolithon calcareum</i> bed in the UK.
	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>): The Fal and Helford is an example of saltmarsh vegetation in a ria (drowned river valley), a physiographic type restricted to south-west England and west Wales. There is a narrow saltmarsh zonation typical of rias, from pioneer to upper marsh, and transitions to woodland where the fringing trees overhang the tidal river, an unusual juxtaposition of vegetation in the UK.
	Annex I habitats (as a qualifying feature) Estuaries & Reefs: Both are Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.
	Annex II species (as primary reason for selection) Shore Dock: A rocky-shore site supporting a large, dispersed population of Shore Dock near to the centre of its distribution in south-west England. Three sections of open coastline are included within the site, which when last surveyed (in 1999) supported 12 colonies and at least 34 plants. The site also holds extensive additional areas of suitable habitat.



Special Areas of	
Conservation (SACs)	Description of interests
RIVER CAMEL	Annex I habitats (as primary reason for selection) Not applicable
(621.7 ha)	Annex I habitats (as qualifying feature) European dry heaths Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)
	Annex II species (as primary reason for selection) Bullhead: The Camel represents Bullhead in the extreme south-west of its range in England. The river encompasses a range of ecological conditions with both upland and lowland characteristics. The clean, fast-flowing, relatively oligotrophic waters with their stony bottoms are particularly suitable for Bullhead, which forms an important part of the total fish biomass.
	Otter: The Camel represents Otter in its main stronghold in England in the south-west of the country. Surveys have indicated a dense population along this river. Records show that these populations persisted even during the period when the Otter was in serious decline over much of the rest of its range in England, and this area has acted as a nucleus for recolonisation of other parts of England. The river and its tributaries represent the more upland as well as lowland habitat types utilised by Otters, satisfying requirements for adequate food supply throughout the year. The wooded lower reaches of the river provide excellent habitat for resting and breeding.
	Annex II species (as a qualifying feature) Atlantic salmon Salmo salar.

11 APPENDIX B

Policy Options and Likely Significant Effect on Natura 2000 Sites of the Cornwall and Isles of Scilly SMP2

Primary Qualifying		A 4.4				Key plans/policies in	Likely significant	1
feature	Supporting nabitat	Attribute	rarger	Potential Impacts	significant effect alone	combination	enect in combination	Conciusion
Option 1 - Hold the Line	в							
Plymouth Sound & Estuaries SAC	uaries SAC							
Sandbanks	ΝΑ	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.					
Mudflats	NA	Habitat extent and physical characteristics	No decrease in mudflat extent. Community composition of mudflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	Currently undefended, holding the line could result in the loss of habitat depending on the				This contact
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	footprint of any measure (likely to affect reefs). Changes to the coastal	Yes	Same as above	No additional incombination effects identified.	policy will have a likely significant effect on the Plymouth Sound &
Large shallow inlets and bays	NA	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	processes could affect nearshore reef habitats and communities.				
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.					
Atlantic salt meadows (<i>Glauco-</i> <i>Puccinellietalia</i> <i>maritimae</i>)	NA	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.					
Polruan to Polperro SAC	J.							
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types should be present. No impact upon Shore Dock extent.	Currently undefended, holding the line could result in the loss of vegetated sea cliff habitat depending on the footprint of any measure (likely to affect	Yes	Same as above	No additional in- combination	This coastal management policy will have a likely significant effect on the
European dry heaths	۷×	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Changes to the coastal processes could affect cliff habitats and communities.			effects identified.	Polruan to Polperro SAC

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 1 - Hold the Line	er.							
Fal & Helford SAC								
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.					
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	Coastal squeeze may occur due to constraining defences, resulting in the loss of primary habitat features such as sandbanks, mudflats and				
Large shallow inlets and bays	NA	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	sandflats, and Atlantic salt- meadows. Long term changes to coastal	Yes	Same as above	No specific in- combination effects identified at this stage.	This coastal management policy will have a likely significant effect on the Fal & Helford SAC
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	processes, could affect the habitats (sandbanks, mudflats and sandflats, and Atlantic saltmeadows) and communities				
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	within the site.				
Atlantic salt meadows (Glauco-Puccinellietalia martimae)	NA	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.					
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Hard oligo- mesotrophic waters with benthic vegetation of <i>Chara</i>	NA	Habitat extent, vegetation composition, water and morphology characteristics	No loss of standing water extent. No decrease in inflow the standing water. Component vegetation types and notable species is maintained. No change in water quality and sediment load.	Currently undefended, holding the line could result in the loss of				
Mediterranean temporary ponds	NA	Habitat extent, vegetation composition, water and morphology characteristics	No loss of pond extent. No decrease in inflow the standing water. Component vegetation types and notable species is maintained. No change in water quality and sediment load.	vegetated sea cliff and Mediterranean temporary ponds habitat depending on the footprint of any measure (likely to affect reefs).	Yes	Same as above	No additional in- combination	This coastal management policy will have a likely simificant effect on the
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Changes to the coastal processes could affect the vegetated sea cliffs and			effects identified.	Lizard SAC
Northern Atlantic wet heaths <i>with Erica</i> <i>tetralix</i>	NA	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Mediterranean temporary pond habitats and communities.				
Dry Atlantic coastal heaths with <i>Erica</i> vagans	ΝΑ	Habitat extent and physical characteristics	The total extent of dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					

					l ikalv		l ikely significant	
Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	significant effect alone	Key plans/policies in combination	effect in combination	Conclusion
Option 1 - Hold the Line	ine							
Marazion Marsh SPA								
	Bogs, marshes, water fringed vegetation, and fens	Habitat extent and structure	No decrease in water body habitat extent in particular the Marazion Marsh. Component vegetation types should be present. No obvious modification to structural features.	This policy would not result in direct habitat loss, physical damage, or physical disturbance		North Cornwall District Council Local Plan; North Devon District		
Internationally	Inland water bodies (standing water and	Habitat extent, function	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools.	to the sites supporting nabitat and therefore it's interest features.		Council Local Plan, Restormel Borough Council Local Plan; Restormel Borough	No additional in-	This coastal management policy could have a likely significant effect on the
important Article 4.1 Species: Aquatic	running water)	910000	transport. No net changes in habitat morphology.	Increasing sea level rise will mean that potential changes to	Potentially	Caradon District Council Local Plan;	combination effects identified at	Marazion Marsh SPA in the long-term, as a result
Warbier and bittern	Coastal sand dunes, sand beaches, and Machair	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present. No obvious modification to structural features.	marsh into the sea will arise due to the presence of defence		Penwith District Council Local Development Plan;	siage siage	of sea level rise and constrained hydrology
	Broad-leaved deciduous woodland	Habitat extent , composition and structure	The total extent of grassland and scrubland is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	long term result in changes to the supporting habitats within the site.		Carnek District (Wide) Council Local Plan; Kerrier District Council Local Plan		
Isles of Scilly Complex SAC	ex SAC							
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent or Grey Seal populations.	Currently undefended, holding the line could result in the loss of intertidal mudflat and sandflat and reef habitat depending on the footprint of any measure. In addition, coastal squeeze may occur due to constraining			-di Janoi∺ibbe oN	This coastal management
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	primary habitat features such as mudflats and sandflats. Long term changes to coastal	Yes	Same as above	combination effects identified	significant effect on the Isles of Scilly Complex SAC
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	habitats (sandbanks, mudflats and sandflats, and reefs) and associated communities within the site.				
Isles of Scilly SPA								
	Marine areas and sea inlets	Habitat extent and structure	No decrease or loss in extent of marine areas and sea inlets. No obvious modification to structural features.	This policy could result in the				
Internationally important Article 4.1 Species: Storm Petrel	Tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins)	Habitat extent and structure	No decrease or loss in extent of coastal habitat features. No obvious modification to structural features.	the bird species that feed in the site, through footprint loss or coastal squeeze, and thereby	, od ,	Same se above	No additional in-	This coastal management policy will have a likely
and Article 4.2 Species: Lesser Black-backed Gull	Inland water bodies (standing water and running water)	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	Long term changes to coastal processes, could affect the supporting habitats, and therefore the bird populations.	3		effects identified	significant effect on the Isles of Scilly SPA

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 1 - Hold the Line	ne							
Godrevy Head to St Agnes SAC	gnes SAC							
Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	NA	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents. Component vegetation types should be present. No obvious modification to structural features.	loss of supporting habitats within the site, through footprint loss or coastal sources. However it	> >	Same as above	No additional in-	This coastal management policy will have a likely similificant effect on the
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents.	may also directly affect the	8	מבופ מס מסיים	effects identified	Godrevy Head to St
Inland water bodies (standing water, running water)	ĀZ	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	depending on the measures.				
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat feature extents.					
Penhale Dunes SAC								
Fixed dunes with herbaceous vegetation (grey dunes)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types and geological features should be present.					
Humid dune slacks	AN	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.	,				
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	Ϋ́	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Dunes with Salix repens ssp. argentea (Salicion arenariae)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in extent.	This policy could result in the loss of primary habitats through	,	G G	No additional in-	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	٩V	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	footprint loss or coastal squeeze.	Д Б	Salle as above	effects identified	significant effect on the Penhale Dunes SAC
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease water habitat extents.					
Heath, scrub, Maquis and garrigue, and Phygrana	NA	Habitat extent	No decrease in extent.					
Dry grassland	NA	Habitat extent	No decrease in grassland extent.					
Mixed Woodland	NA	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present.					

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 1 - Hold the Line	Je L							
River Camel SAC								
Inland water bodies (standing water, running water)	٩	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology. No decrease in Bullhead and Otter populations.					
Bogs, marshes, water fringed vegetation, and fens	z	Habitat extent	No decrease in water habitat extents.	The indirect effect of maintaining				
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	tidal defences downstream could result in alteration to the hydrological regime of the River Camel, which may require	Yes	Same as above	No additional in- combination effects identified at	This coastal management policy will have a likely significant effect on the
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	extension of the defence line within the site, and the loss of primary or supporting habitats.			this stage	River Camel SAC
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	NA	Habitat extent and vegetation communities	No decrease in forest extent. Component vegetation types should be present.					
Humid grassland and Mesophile grassland	NA	Habitat extent	No decrease in grassland extent.					
Tintagel-Marsland-Clovelly Coast SAC	velly Coast SAC							
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	Currently undefended, holding				
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.		>	Single State	No additional in-	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	Y Y	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	reefs). Changes to the coastal processes could affect cliff habitats and communities.	0	20000	effects identified.	Tintagel-Marsland-Clovelly Coast SAC
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent	No decrease in coastal habitat feature extents.					
Dry grassland. Steppes	NA	Habitat extent	No decrease in extent.					

Likely significant effect in Conclusion	combination			Ē	No additional in- significant effect on the effects identified Plymouth Sound &	Estudires OAO			No additional input policy will have a likely combination significant effect on the	effects identified significant effects identified
Key plans/policies in combination					Same as above				Same as above	
Likely significant effect	alone				Yes				Yes	
Potential impacts				Currently undefended, advancing the line could result in the loss of habitat depending on	the footprint of any measure (likely to affect reefs). Changes to the coastal	processes could affect nearshore reef habitats and their associated communities.			Currently undefended, advancing the line could result in the loss of vegetated sea cliff habitat depending on the footprint of any measure (likely to affect reefs).	
Target			No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.	maintained. and morphology (dynamic nd channel migration	eature. characteristics and sediment sition and abundance.	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.	No decrease in vegetated sea cliff extent. Component vegetation types should be present. No impact upon Shore Dock extent.	
Attribute			Habitat extent, species and physical characteristics	Habitat extent and physical characteristics	Habitat extent, distribution, salinity and water quality	Habitat extent, distribution, salinity and water quality	Habitat extent, species and physical characteristics	Habitat extent, species and physical characteristics	Habitat extent and vegetation communities	
Supporting Habitat	the existing defence line	daries SAC	٩	NA	NA	NA	NA	A	Q V	
Primary Qualifying feature	ance	Frymouth Sound & Est	Sandbanks	Mudflats	Estuaries	Large shallow inlets and bays	Reefs	Atlantic salt meadows (Glauco- Puccinellietalia maritimae)	Vegetated sea cliffs of the Atlantic and Baltic coasts	

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					l ikely		l ikely significant	
Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	significant effect alone	Key plans/policies in combination	effect in combination	Conclusion
Option 2 - Advance the Fal & Helford SAC	the existing defence line							
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.	Advancing the line will result in the loss of intertidal habitats for which the site is designated (mudflats, sandflats, salt meadows, etc). In addition, this policy could exacerbate the				
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	effects of coastal squeeze due to the increased constraint of defences, resulting in the loss of primary habitat features such as sandbanks, mudflats and				
Large shallow inlets and bays	NA	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	sandflats, and Atlantic saltmeadows. This policy would result in	Yes	Same as above	No specific incombination effects identified at this stage.	This coastal management policy will have a likely significant effect on the Fal & Helford SAC
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	changes to coastal processes, which could affect the habitats (sandbanks, mudflats and sandflats, and Atlantic salt-			,	
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	meadows) and communities within the site. Maintenance works on advance				
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	NA	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.	the line measures could result in additional disturbance to disturbance to habitats.				
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Hard oligo- mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	NA	Habitat extent, vegetation composition, water and morphology characteristics	No loss of standing water extent. No decrease in inflow the standing water. Component vegetation types and notable species is maintained. No change in water quality and sediment load.	Currently undefended, advancing the line could result in				
Mediterranean temporary ponds	NA	Habitat extent, vegetation composition, water and morphology characteristics	No loss of pond extent. No decrease in inflow the standing water. Component vegetation types and notable species is maintained. No change in water quality and sediment load.	the loss of vegetated sea cliff and Mediterranean temporary ponds habitat depending on the footprint of any measure (likely to affect reefs).	Yes	Same as above	No additional in- combination	This coastal management policy will have a likely ciquificant effect on the
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Changes to the coastal processes could affect vegetated sea cliff and			effects identified	Lizard SAC
Northern Atlantic wet heaths <i>with Erica</i> <i>tetralix</i>	NA	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Mediterranean temporary pond habitats and communities.				
Dry Atlantic coastal heaths with <i>Erica</i> vagans	NA	Habitat extent and physical characteristics	The total extent of dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 2 - Advance th	Option 2 - Advance the existing defence line							
Marazion Marsin SPA	Bogs, marshes, water fringed vegetation, and	Habitat extent and	No decrease in water body habitat extent in particular the Marazion Marsh.	This policy would not result in direct habitat loss, physical		North Cornwall District Council Local Plan;		
	fens	sinciale	No obvious modification to structural features.	damage, or physical disturbance		Council Local Plan;		
	Inland water bodies	s of the second	Continuity of the river is not disturbed by anthropogenic activities.	to the site's supporting nabilation and therefore it's interest features.		Restormel Borough Council Local Plan;		This coastal management
Internationally important Article 4.1 Species: Aquatic	(standing water and running water)	nabitat extern, Turicuori and structure	Undisturbed migration of aquatic organisms and sediment transport.	Increasing sea level rise will mean that potential changes to	Potentially	Council Local Plan; Caradon District	No additional in- combination effects identified at	significant effect on the Marazion Marsh SPA in
Warbler and Bittern	Coastal sand dunes, sand beaches, and Machair	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present. No obvious modification to structural features.	the discharge of waters from the marsh into the sea will arise due to the presence of defence		Penwith District Council Local Development Plan:	this stage	of sea level rise and constrained hydrology
	Broad-leaved deciduous woodland	Habitat extent , composition and structure	The total extent of grassland and scrubland is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	 structures, which could in the long term result in changes to the supporting habitats within the site. 		Carrick District (Wide) Council Local Plan; Kerrier District Council Local Plan		
Isles of Scilly Complex SAC	x SAC							
			No decrease in sandbank extent.	Currently undefended,				
Sandbanks	Ϋ́	Habitat extent, species and physical	Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained.	advancing the line could result in the loss of intertidal mudflat and sandflat and reef habitat,				
		characteristics	The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent or Grey Seal populations.	depending on the Tootprint of any measure. In addition, coastal squeeze may occur due to constraining defences.			:	This coastal management
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	resulting in the loss of primary habitat features such as mudflats and sandflats. Long term changes to coastal	Yes	Same as above	No additional in- combination effects identified	policy will have a likely significant effect on the Isles of Scilly Complex SAC
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	 processes, could affect the habitats (sandbanks, mudflats and sandflats, and reefs) and associated communities within the site. 				
Isles of Scilly SPA								
	Marine areas and sea inlets	Habitat extent and structure	No decrease or loss in extent of marine areas and sea inlets. No obvious modification to structural features.	This policy could result in the				
Internationally important Article 4.1 Species: Storm Petrel	Tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins)	Habitat extent and structure	No decrease or loss in extent of coastal habitat features. No obvious modification to structural features.	the bird species that feed in the site, through footprint loss or coastal squeeze, and thereby			No additional in-	This coastal management policy will have a likely
and Article 4.2			Continuity of the river is not disturbed by anthropogenic	ellect trie bird populations.	T GS	Same as above	effects identified	significant effect on the
Species: Lesser Black-backed Gull	Inland water bodies (standing water and running water)	Habitat extent, function and structure	activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport.	Long term changes to coastal processes, could affect the supporting habitats, and therefore the bird populations.				Isles of scilly SPA
			No net changes in habitat morphology.					

Primary Qualifying	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect	Key plans/policies in	Likely significant effect in	Conclusion
teature Option 2 - Advance th	the existing defence line				alone	combination	combination	
Godrevy Head to St Agnes SAC	gnes SAC							
Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>	ΨZ	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents. Component vegetation types should be present. No obvious modification to structural features.	This policy could result in the loss of supporting habitats within	,		No additional in-	This coastal management policy will have a likely
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents.	the site, through footprint loss or coastal squeeze.	Yes	same as above	combination effects identified	Significant effect on the Godrevy Head to St
Inland water bodies (standing water and running water)	۷V	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport.					Agnes SAC
Bogs, marshes, water fringed vegetation,	NA	Habitat extent	No decrease in water habitat feature extents.					
Penhale Dunes SAC								
Fixed dunes with herbaceous vegetation (grey dunes)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types and geological features should be present.					
Humid dune slacks	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.	ı				
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Dunes with Salix repens ssp. argentea (Salicion arenariae)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in extent.	This policy could result in the loss of primary habitats through	\ \ \	9	No additional in-	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	ĄZ	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	footprint loss or coastal squeeze.	χ Θ	Same as above	combination effects identified	significant effect on the Penhale Dunes SAC
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat extents.					
Heath, scrub, Maquis and garrigue, and Phygrana	NA	Habitat extent	No decrease in extent.					
Dry grassland	NA	Habitat extent	No decrease in grassland extent.					
Mixed Woodland	NA	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present.					

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 2 - Advance the	- Advance the existing defence line							
Inland water bodies (standing water and running water)	٩	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology. No decrease in Bullhead and Otter populations.					
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease water habitat feature extents.	The indirect effect of maintaining				
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	defences downstream could result in alteration to the hydrological regime of the River	Yes	Same as above	No additional in- combination effects identified at	This coastal management policy will have a likely significant effect on the
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	extension of the defence line within the site, and the loss of primary or supporting habitats.			this stage	River Camel SAC
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	NA	Habitat extent and vegetation communities	No decrease in forest extent. Component vegetation types should be present.					
Humid grassland and Mesophile grassland	NA	Habitat extent	No decrease in extent.					
Tintagel-Marsland-Clovelly Coast SAC	ovelly Coast SAC							
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	Currently undefended,				
European dry heaths	ΝΑ	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	the loss of vegetated sea clift habitat depending on the footprint of any measure (likely	\ 		c	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	ĄZ	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	Changes to the coastal processes could affect the vegetated sea cliff habitat and communities.	8 2	Same as above	. .	Significant effect on the Tintagel-Marsland-Clovelly Coast SAC
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent	No decrease in coastal habitat feature extents.					
Dry grassland and steppes	NA	Habitat extent	No decrease in extent.					

64

	Supporting Habitat	Attribute	Target	Likely Potential impacts significant effect alone	ly Key plans/policies in combination te	Likely significant effect in combination	Conclusion
Option 3 - Managed realignment Plymouth Sound & Estuaries SAC	realignment Estuaries SAC						
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.				
Mudflats	NA	Habitat extent and physical characteristics	No decrease in mudflat extent. Community composition of mudflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	Currently undefended maritime cliff and slope. Managed realignment would result in loss of reef and other habitats			- - - - - - -
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	depending on the footprint of any measure (likely to affect reefs).	Same as above	No additional incombination effects identified	policy will have a likely significant effect on the Plymouth Sound &
Large shallow inlets and bays	NA	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	Changes to the coastal processes could affect nearshore reef habitats and communities.			Estuaries SAC
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.				
Atlantic salt meadows (Glauco- Puccinellietalia maritimae)	A	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.				
Vegetated sea cliffs of the Atlantic and Baltic coasts	Q V	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types should be present. No impact upon Shore Dock extent.	Currently undefended vegetated sea cliffs. Managed realignment would result in loss of vegetated cliff and European dry heath habitat (and possible Shore Dock communities) depending on the footprint of any measure.	Same as above	No additional in- combination	This coastal management policy will have a likely significant effect on the
European dry heaths	٩٧	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Changes to the coastal processes could affect nearshore vegetated sea cliff habitat and associated communities.			Polruan to Polperro SAC

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect	Key plans/policies in combination	Likely significant effect in	Conclusion
Option 3 - Managed realignment	alignment				0000			
Fal & Helford SAC								
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.					
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	Managed realignment would reduce the effects of coastal squeeze by providing area for habitats to retreat with changing			o iii	
Large shallow inlets and bays	Ą	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	Sea levels, and no impact would be expected. Potentially, managed	o N	Same as above	additional incombination effects identified at	This coastal management policy will not effect the Fal & Helford SAC
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	changes to coastal processes, though these would alter this way in the natural scenario, and			ાં કે કોલીલ.	
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	Terice TO Tripact Would alive.				
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	NA	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.					
Vegetated sea cliffs of the Atlantic and	AN	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should					
Baltic coasts Hard oligo- mesotrophic waters with benthic vegetation of <i>Chara</i> spp.		vegetation communities Habitat extent, vegetation composition, water and morphology characteristics		Currently undefended vegetated sea cliffs. Managed realignment would result in loss of vegetated cliff, Mediterranean temporary ponds, European dry heath, Northern Atlantic wet heaths.				
Mediterranean temporary ponds	ΥV	Habitat extent, vegetation composition, water and morphology characteristics			Yes	Same as above	No additional in- combination	This coastal management policy will have a likely similicant effect on the
European dry heaths	Ą	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	geomorphological regime could affect nearshore vegetated sea cliff and temporary pond habitat			effects identified	Lizard SAC
Northern Atlantic wet heaths <i>with Erica</i> <i>tetralix</i>	۷۷	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Altered erosion and waves could alter the communities on the vegetated sea cliff and				
Dry Atlantic coastal heaths with <i>Erica</i> vagans	VΑ	Habitat extent and physical characteristics	The total extent of dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	temporary pond habitat.				

				Likely	ni soioilon/sucla vol	Likely significant	
Attribute		Target	Potential impacts	significant effect alone	key plans/policies in combination	effect in combination	Conclusion
No de Habitat extent and Maraz Structure Comp	No de Maraz Comp	No decrease in water body habitat extent in particular the Marazion Marsh. Component vegetation types should be present. No obvious modification to structural features.			North Cornwall District Council Local Plan; North Devon District Council Local Plan:		
Continuity activities. Habitat extent, function No decreand structure transport. No net ch	Continui activities No decre Undistur transpor No net c	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	Managed realignment would result in the loss of supporting habitat which could result in reduction in the numbers of the	Yes	Restormel Borough Council Local Plan; Restormel Borough Council Local Plan; Caradon District Council Local Plan;	No specific additional in- combination effects identified at	This coastal management policy will have a likely significant effect on the
Habitat extent and Compone vegetation communities No obvio	No decre Compone No obvio	No decrease in woodland extent. Component vegetation types should be present. No obvious modification to structural features.	bird species for which the site is designated.		Penwith District Council Local Development Plan;	this stage.	Marazion Marsn SPA
Habitat extent , Component composition and maintained. Structure No obvious	The total (Compone maintaine)	The total extent of grassland and scrubland is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.			Carrick District (Wide) Council Local Plan; Kerrier District Council Local Plan		
_			-				
No decrea Communit Habitat extent, species and physical characteristics Subtidal se subtidal se	No decrea Communit The variet subtidal se The gross subtidal se	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore dock extent or Grey Seal populations.	Managed realignment would reduce the effects of coastal squeeze by providing area for habitats to retreat with changing sea levels, and no impact would				This coastal management
Habitat extent and Community physical characteristics The topographocesses across the	No decreas Community The topogr processes across the	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	Potentially, managed realignment could result in changes to coastal processes,	ON O	Same as above	no additional in- combination effects identified	policy will not effect the Isles of Scilly Complex SAC
Habitat extent, species and physical Supporting characteristics	Extent of re Reef comm Supporting maintained	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	way in the natural scenario, and hence no impact would arise.				
=							
Habitat extent and No decre structure No obvio	No decre No obvio	No decrease or loss in extent of marine areas and sea inlets. No obvious modification to structural features.	Managed realignment would				
Habitat extent and No decre structure No obvio	No decre No obvio	No decrease or loss in extent of coastal habitat features. No obvious modification to structural features.	squeeze by providing area for habitats to retreat with changing sea levels. However, the	(i)	4	No additional in-	This coastal management policy will have a likely
Habitat extent, function No decrea and structure transport.	Continuity activities. No decrea Undisturbe transport. No net cha	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	nesting habitat could potentially be affected if managed realignment result in the loss of this habitat. Consequently, a potential effect could arise on nesting habitat.	es -	Same as above	combination effects identified	significant on the Isles of Scilly SPA

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 3 - Managed realignment	realignment							
Temperate Atlantic wet heaths with Erica ciliaris and Erica	NA	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
European dry heaths	V.	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents. Component vegetation types should be present. No obvious modification to structural features.	This policy could result in the loss of primary heath habitats,	>	-	No additional in-	This coastal management policy will have a likely
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents.	as opposed to a gain for the supporting habitats.	Yes	same as above	combination effects identified	Significant effect on the Godrevy Head to St
Inland water bodies (standing water and running water)	NA	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.					Agries 3AC
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat feature extents.					
Penhale Dunes SAC								
Fixed dunes with herbaceous vegetation (grey dunes)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types and geological features should be present.					
Humid dune slacks	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Dunes with Salix repens ssp. argentea (Salicion arenariae)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.	40 00 00 00 00 00 00 00 00 00 00 00 00 0				
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in extent.	result in the provision of primary	,		No additional in-	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	NA	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	squeeze, but at the loss of supporting habitats.	2 D	Salle as above	effects identified	significant effect on the Penhale Dunes SAC
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat feature extents.					
Heath, scrub, Maquis and garrigue, and <i>Phydrana</i>	NA	Habitat extent	No decrease in extent.					
Dry grassland	NA	Habitat extent	No decrease in grassland extent.					
Mixed Woodland	ΥN	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present.					

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 3 - Managed realignment River Camel SAC	alignment							
Inland water bodies (standing water and running water)	V V	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology. No decrease in Bullhead and Otter populations.					
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease water habitat feature extents.					
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	need for altered tidal defences and reduce the likelihood of defences within the footprint or that would be likely to both or	N S	Same as above	No additional incombination	This coastal management policy will not effect the
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	effect on the site and its habitats and interest species.			מפווווופס	
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	NA	Habitat extent and vegetation communities	No decrease in forest extent. Component vegetation types should be present.					
Humid grassland and Mesophile grassland	NA	Habitat extent	No decrease in extent.					
Tintagel-Marsland-Clovelly Coast SAC	velly Coast SAC							
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	VA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	Currently undefended vegetated sea cliffs. Managed realignment				
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	would result in loss of vegetated cliff and European dry heath habitat (and possible Shore Dock communities) depending	, ,		No additional in-	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	NA	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	Changes to the coastal processes could affect nearshore vegetated sea cliff habitat and associated	<i>n</i> D	Same as above	effects identified	Significant effect of the Tintagel-Marsland-Clovelly Coast SAC
Coastal sand dunes, sand beaches, and Machair	VA	Habitat extent	No decrease in coastal habitat feature extents.					
Dry grassland and steppes	NA	Habitat extent	No decrease in extent.					

69

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 4 - No active intervention Plymouth Sound & Estuaries SAC	tervention tuaries SAC							
Sandbanks	Ą Z	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.					
Mudflats	NA	Habitat extent and physical characteristics	No decrease in mudflat extent. Community composition of mudflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	Currently undefended maritime cliff and slope. Continued long term erosion and coastal				
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	processes will maintain the existing habitats and their associated community development. There would be	O Z	Same as above	No in-combination effects identified	This coastal management policy will not effect the Plymouth Sound & Estuaries SAC
Large shallow inlets and bays	NA	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	no constraint to habitat development within the lifetime of the SMP.				
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.					
Atlantic salt meadows (Glauco- Puccinellietalia maritimae)	V V	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.					
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types should be present. No impact upon Shore Dock extent.	Currently undefended vegetated sea cliffs. Continued long term erosion and coastal processes will maintain the existing habitats			:	This coastal management
European dry heaths	۷Z	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	and their associated community development. There would be no constraint to habitat development within the lifetime of the SMP.	ON O	Same as above	No in-combination effects identified	policy will not effect the Polruan to Polperro SAC

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect	Key plans/policies in combination	Likely significant effect in	Conclusion
Option 4 - No active intervention	itervention				alone		Compiliation	
Fal & Helford SAC								
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent.					
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	No active intervention would, in the medium to long term, reduce the effects of coastal squeeze by providing area for habitats to			ji I	
Large shallow inlets and bays	NA	Habitat extent, distribution, salinity and water quality	No change in extent of inlets and bays. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	following deterioration of existing defences. No impact would be expected, although a wide	°Z	Same as above	additional incombination effects identified at	This coastal management policy will not effect the Fal & Helford SAC
Estuaries	NA	Habitat extent, distribution, salinity and water quality	No change in extent of estuary feature. No change in physico-chemical characteristics and sediment budget. No change in community composition and abundance.	wallety of teffesting habitats would be lost and unable to retreat to higher ground due to existing development and other		_	ાાં કે આવાતુલ.	
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.	alillopological coloria		_		
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	NA	Habitat extent, species and physical characteristics	Extent and distribution of Atlantic salt meadow maintained including associated transitional vegetation and notable species. Structural variation of the Atlantic salt meadow maintained.					
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Battic coasts Hard oligo- mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	ΥV	Habitat extent, vegetation composition, water and morphology characteristics		Currently undefended vegetated				
Mediterranean temporary ponds	٩V	Habitat extent, vegetation composition, water and morphology characteristics		sea cliffs with Mediterranean temporary ponds. Continued long term erosion and coastal processes will maintain the existing habitats and their	9	Same as above	No in-combination	This coastal management policy will not effect the
European dry heaths	Ą	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	associated community development. There would be no constraint to habitat development within the lifetime		_	מופרים ומפוווים	Lizard SAC
Northern Atlantic wet heaths <i>with Erica</i> <i>tetralix</i>	NA	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	of the SMP.				
Dry Atlantic coastal heaths with <i>Erica</i> vagans	VA	Habitat extent and physical characteristics	The total extent of dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.			_		

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 4 - No active in Marazion Marsh SPA	Intervention							
	Bogs, marshes, water fringed vegetation, and fens	Habitat extent and structure	No decrease in water body habitat extent in particular the Marazion Marsh. Component vegetation types should be present. No obvious modification to structural features.	No intervention would see the eventual breach of defences fronting the marsh, and as a result, there would be an		North Cornwall District Council Local Plan; North Devon District Council Local Plan;		
Internationally important Article 4.1 Species: Aquatic	Inland water bodies (standing water and running water)	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	alteration to the habitats within the marsh due to the altered hydrology (from freshwater to brackish or saline). However, the supporting habitats cannot retreat, and the bar that forms	Potentially	Restormel Borough Council Local Plan; Restormel Borough Council Local Plan; Caradon District Council Local Plan;	No specific additional in- combination effects identified at	This coastal management policy will have a likely significant effect on the
Warbier and Dilleri	Coastal sand dunes, sand beaches, and Machair	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present. No obvious modification to structural features.	the defence cannot naturally roll back. Consequently, there would be a loss of the		Penwith District Council Local Development Plan;	this stage.	Marazion imaisii ofa
	Broad-leaved deciduous woodland	Habitat extent , composition and structure	The total extent of grassland and scrubland is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	supporting nabitats, and potentially a reduction in the numbers of the bird species for which the site is designated.		Carrick District (Wide) Council Local Plan; Kerrier District Council Local Plan		
Isles of Scilly Complex SAC	x SAC							
Sandbanks	NA	Habitat extent, species and physical characteristics	No decrease in sandbank extent. Community composition of sandbanks maintained. The variety ad distribution of sediment types across the subtidal sandbank features is maintained. The gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. No impact upon Shore Dock extent or Grey Seal populations.	No active intervention would, in				This coastal management
Mudflats and sandflats	NA	Habitat extent and physical characteristics	No decrease in mudflat and sandflat extent. Community composition of mudflats and sandflats maintained. The topography of the intertidal flats and morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.	the medium to long term, reduce the effects of coastal squeeze by providing area for habitats to retreat with changing sea levels.	°N	Same as above	No in-combination effects identified	policy will not effect the Isles of Scilly Complex SAC
Reefs	NA	Habitat extent, species and physical characteristics	Extent of reef is maintained. Reef community maintained. Supporting physical and ecological processes of the reef maintained.					
Isles of Scilly SPA								
	Marine areas. Sea inlets	Habitat extent and structure	No decrease or loss in extent of marine areas and sea inlets. No obvious modification to structural features.	No active intervention would, in				
Internationally important Article 4.1 Species: Storm Petrel	Tidal rivers, estuaries, mud flats, sand flats, and lagoons (including saltwork basins)	Habitat extent and structure	No decrease or loss in extent of coastal habitat features. No obvious modification to structural features.	the medium to long term, reduce the effects of coastal squeeze by providing area for habitats to retreat with changing sea levels.	o to Control of the C		No specific additional in-	This coastal management policy will have a likely
and Article 4.2 Species: Lesser Black-backed Gull	Inland water bodies (standing water and running water)	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	However, potential nesting habitat could be lost if it is constrained in developing landward of any erosion by manmade assets/structures.	Potentially	Same as above	combination effects identified at this stage.	significant effect on the Isles of Scilly SPA

Primary Qualifying feature	Supporting Habitat	Attribute	Target	Potential impacts	Likely significant effect alone	Key plans/policies in combination	Likely significant effect in combination	Conclusion
Option 4 - No active intervention Godrevy Head to St Agnes SAC	ntervention gnes SAC							
Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	NA	Habitat extent and physical characteristics	The total extent of wet heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.					
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	Natural erosion of primary heath habitat and some of the supporting habitats would occur				
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents. Component vegetation types should be present. No obvious modification to structural features.	in the long term. However, the net loss of heath habitat would be compounded by manmade	(No specific additional in-	This coastal management policy will have a likely
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in coastal habitat feature extents.	constraints to further heath development inland of the site.	Yes	same as above	combination effects identified at	Significant effect on the Godrevy Head to St
Inland water bodies (standing water and running water)	NA	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	Overall therefore, a loss of the primary habitat would occur as a consequence of human activity/development inland.			ाड अविवेद स्थाप	Agries SAC
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat feature extents.					
Penhale Dunes SAC								
Fixed dunes with herbaceous vegetation (grey dunes)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types and geological features should be present.					
Humid dune slacks	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.					
Dunes with Salix repens ssp. argentea (Salicion arenariae)	NA	Habitat extent and vegetation communities	No decrease in dune extent. Component vegetation types should be present.	Potential habitat loss as a result			;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	
Shingle, sea cliffs, and islets	NA	Habitat extent and vegetation communities	No decrease in extent.	of coastal squeeze reducing the area of primary and supporting	,		additional in-	This coastal management policy will have a likely
Inland water bodies (standing water and running water)	ΨZ	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	habitats, due to the constraint of human activity/development inland of the site.	S O	Same as above	combination effects identified at this stage.	significant effect on the Penhale Dunes SAC
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat feature extents.					
Heath, scrub, Maquis and garrigue, and <i>Phygrana</i>	NA	Habitat extent	No decrease in extent.					
Dry grassland	NA	Habitat extent	No decrease in grassland extent.					
Mixed Woodland	NA	Habitat extent and vegetation communities	No decrease in woodland extent. Component vegetation types should be present.					

73

					Likely	2	Likely significant	
Primary Qualitying feature	Supporting Habitat	Attribute	Target	Potential impacts	significant effect alone	Key plans/policies in combination	effect in combination	Conclusion
Option 4 - No active intervention	itervention							
River Camel SAC				_				
Inland water bodies (standing water and running water)	Ą	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology. No decrease in Bullhead and Otter populations.	No intervention in rising sea level and coastal erosion will result in potential changes to the hydrology and habitats at the lower end of the River Camel SAC. However, this would only alter the types of supporting				
Bogs, marshes, water fringed vegetation, and fens	NA	Habitat extent	No decrease in water habitat feature extents.	habitat at the lower reaches which do not include the primary habitats. Furthermore, no				
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	obstructions to the flows at the downstream end of the site would occur, and therefore no effect is predicted.	°Z	Same as above	No in-combination effects identified	This coastal management policy will not effect the
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.	ı				
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	NA	Habitat extent and vegetation communities	No decrease in forest extent. Component vegetation types should be present.					
Humid grassland and Mesophile grassland	NA	Habitat extent	No decrease in extent.					
Tintagel-Marsland-Clovelly Coast SAC	velly Coast SAC			-				
Vegetated sea cliffs of the Atlantic and Baltic coasts	NA	Habitat extent and vegetation communities	No decrease in vegetated sea cliff extent. Component vegetation types and geological features should be present.					
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	NA	Habitat extent and vegetation communities	No decrease in old sessile oak wood extent. Component vegetation types should be present.					
European dry heaths	NA	Habitat extent and physical characteristics	The total extent of European dry heaths is maintained. Component vegetation types and notable species is maintained. No obvious modification to structural features.	sea cliffs. Continued long term erosion and coastal processes will maintain the existing habitats	<u> </u>		No in-combination	This coastal management policy will not effect the
Inland water bodies (standing water and running water)	NA	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. No decrease in extent of pools. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	development. There would be no constraint to habitat development within the lifetime of the SMP.	2	34116 45 4500 VG	effects identified	Tintagel-Marsland-Clovelly Coast SAC
Coastal sand dunes, sand beaches, and Machair	NA	Habitat extent	No decrease in coastal habitat feature extents.					
Dry grassland and steppes	NA	Habitat extent	No decrease in extent.					