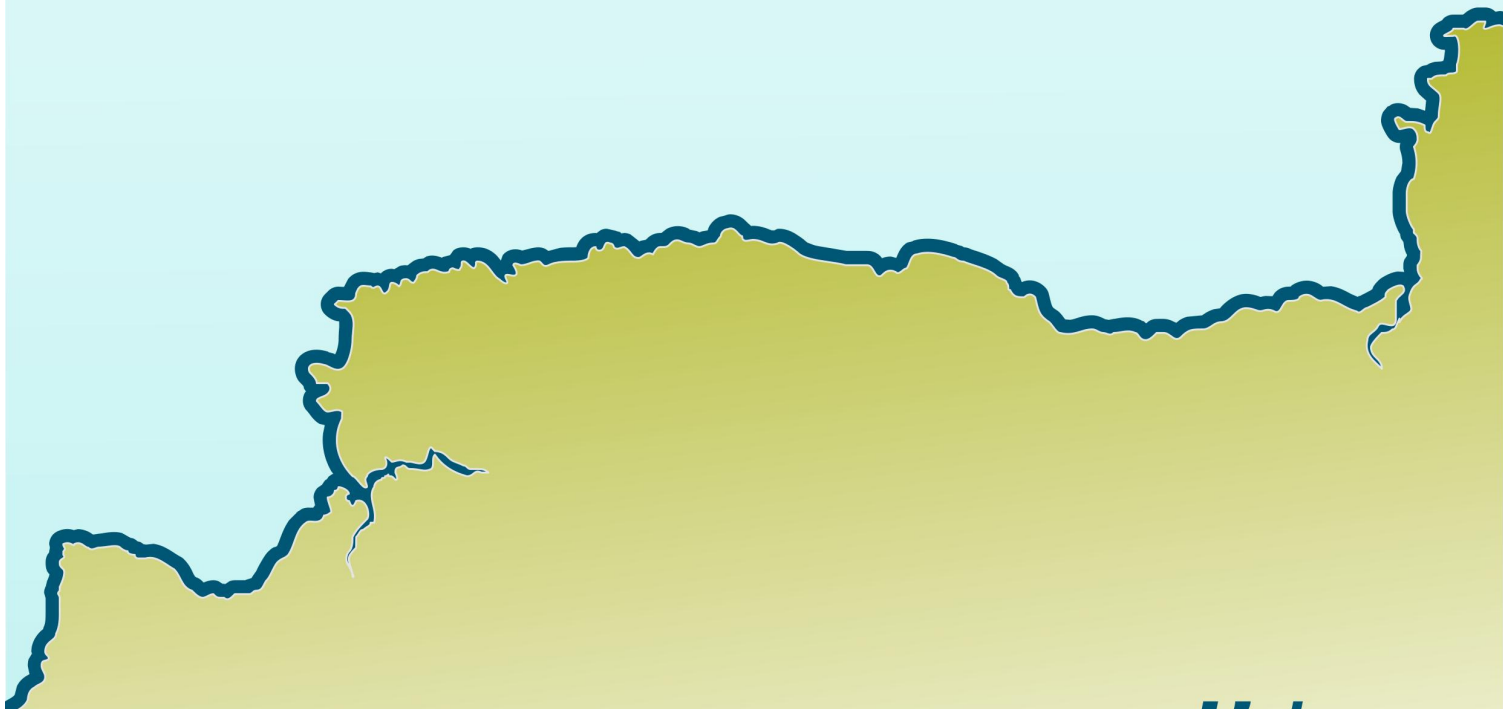


North Devon and Somerset Coastal Advisory Group (NDASCAG)

Shoreline Management Plan Review (SMP2) Hartland Point to Anchor Head

Appendix I – Strategic Environmental Assessment



The Supporting Appendices

These appendices and the accompanying documents provide all of the information required to support the Shoreline Management Plan. This is to ensure that there is clarity in the decision-making process and that the rationale behind the policies being promoted is both transparent and auditable. The appendices are:

A: SMP Development	This reports the history of development of the SMP, describing more fully the plan and policy decision-making process.
B: Stakeholder Engagement	All communications from the stakeholder process are provided here, together with information arising from the consultation process.
C: Baseline Process Understanding	Includes baseline process report, defence assessment, NAI and WPM assessments and summarises data used in assessments.
D: SEA Environmental Baseline Report (Theme Review)	This report identifies and evaluates the environmental features (human, natural, historical and landscape).
E: Issues & Objectives Evaluation	Provides information on the issues and objectives identified as part of the Plan development, including appraisal of their importance.
F: Initial Policy Appraisal & Scenario Development	Presents the consideration of generic policy options for each frontage, identifying possible acceptable policies, and their combination into 'scenarios' for testing. Also presents the appraisal of impacts upon shoreline evolution and the appraisal of objective achievement.
G: Preferred Policy Scenario Testing	Presents the policy assessment and appraisal of objective achievement towards definition of the Preferred Plan (as presented in the Shoreline Management Plan document).
H: Economic Appraisal and Sensitivity Testing	Presents the economic analysis undertaken in support of the Preferred Plan.
I: Strategic Environmental Assessment (SEA) Report	Presents the various items undertaken in developing the Plan that specifically relate to the requirements of the EU Council Directive 2001/42/EC (the Strategic Environmental Assessment Directive), such that all of this information is readily accessible in one document.
J: Appropriate Assessment Report	Presents the Appropriate Assessment of SMP policies upon European designated sites (SPAs and SACs) as well as Ramsar sites, where policies might have a likely significant effect upon these sites. This is carried out in accordance with the Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations).
K: Water Framework Development Report	Presents assessment of potential impacts of SMP policies upon coastal and estuarine water bodies, in accordance with the requirements of EU Council Directive 2000/60/EC (the Water Framework Directive).
L: Metadatabase and Bibliographic database	All supporting information used to develop the SMP is referenced for future examination and retrieval.
M: Action Plan Summary Table	Presents the Action Plan items included in Section 6 of the main SMP document (The Plan) in tabular format for ease of monitoring and reporting action plan progress.

Within each appendix cross-referencing highlights the documents where related appraisals are presented. The broad relationships between the appendices are illustrated below.

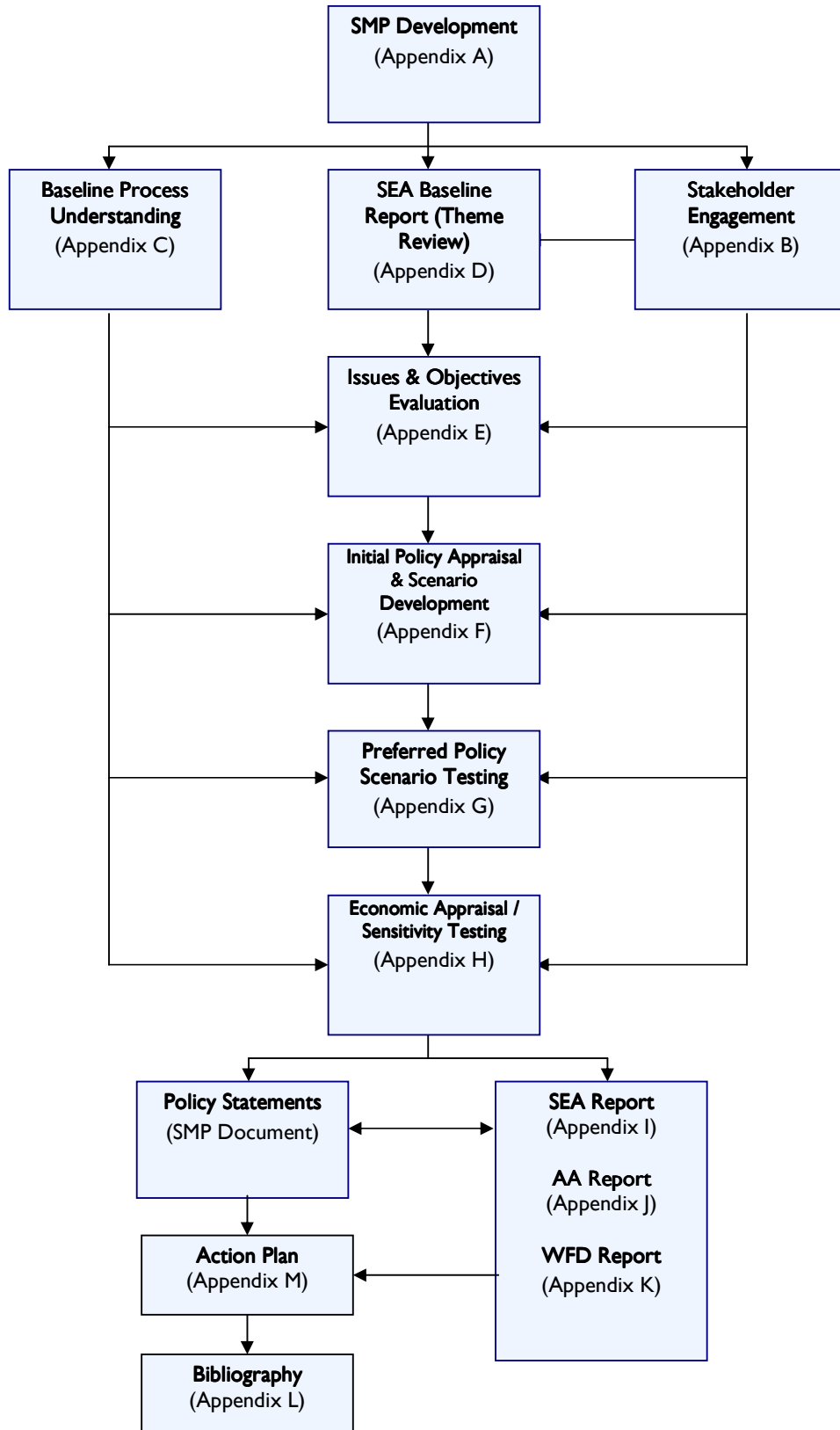


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1.1 Introduction and Background

1.1.1 The North Devon and Somerset Shoreline Management Plan

A Shoreline Management Plan (SMP) provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks in a sustainable manner with respect to people and to the developed, historic and natural environment. A SMP is a non-statutory, policy document for coastal flood and erosion risk management planning. It takes account of other existing planning initiatives and legislative requirements and is intended to inform wider strategic planning. It does not set policy for anything other than coastal flood and erosion risk management.

The objectives of the SMP are as follows:

- to define, in general terms, the risks to people and the developed, historic and natural environment as a result of coastal evolution and behaviour within the SMP area over the next century;
- to identify the preferred policies for managing those risks, together with the reasoning behind the choice of those policies;
- to identify the consequences of implementing the preferred policies;
- to inform planners, developers and others of the risks of coastal evolution and of the preferred policies when considering future development of the shoreline, land use changes and wider strategic planning;
- to comply with international and national nature conservation legislation and biodiversity obligations;
- to comply with the objectives of the Water Framework Directive (WFD);
- to set out procedures for monitoring the effectiveness of the SMP policies; and
- to highlight areas where knowledge gaps exist.

The first generation SMPs were completed for the entire coastline of England and Wales approximately ten years ago. Since that time, many lessons have been learned. Reviews funded by Defra have examined the strengths and weaknesses of various Plans. Three 'pilot' SMPs (Sheringham to Lowestoft, South Foreland to Beachy Head and Beachy Head to Selsey Bill) were undertaken and lessons learnt from these were fed into revised SMP guidance (Defra, 2006¹).

The first generation of SMPs are now under review to ensure that they are updated to take account of the latest knowledge and information and to take account of greater understanding of the risks we face in the future. The second generation of SMPs identify sustainable and deliverable solutions to manage these risks while working with natural processes wherever possible.

1.1.2 Purpose of Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is the systematic appraisal of the potential environmental consequences of high level decision-making, such as policies, plans, strategies and programmes, before they are approved. The purpose of SEA is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes, with a view to promoting sustainable development.

¹ Defra (2006): *Shoreline Management Plan Guidance Volumes 1 and 2*

In developing the North Devon and Somerset Shoreline Management Plan (SMP), the environment has been considered alongside social, technical and economic issues. This appendix documents the SEA process undertaken for the North Devon and Somerset SMP. It demonstrates how the SEA process has been carried out during the development of the North Devon and Somerset SMP and outlines how the SEA Directive's requirements have been met through signposting the relevant places within the main SMP document (see section 2.3 'SEA Signposting').

The approach for this SMP was to ensure that the environmental assessment process is fully integral to the SMP development, as recommended in the Defra SMP Guidance (2006)². Environmental assessment was therefore carried out in conjunction with and as part of the SMP stages, described in the guidance. In order to ensure transparency and show how the development of the SEA fulfils the SEA Regulations (see Section 12.2), this appendix (with signposting to relevant sections within the main SMP and associated appendices) has been produced to document the SEA process.

1.1.3 SEA Directive, Regulations and Guidance

The requirement to undertake SEA of certain plans and programmes entered European Law in 2001 under Directive 2001/42/EC; transposed into UK law in 2004 by The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004 1633)¹. This SEA has been carried out with cognisance of, and in the spirit of, the following legislation and guidance:

- National Environmental Impact Assessment and Strategic Environmental Assessment Policy, Procedures and Guidance (Environment Agency, 2004 Environment Agency management system controlled documentation).
- Flood and Coastal Defence Project Appraisal Guidance (PAG) 2: Strategic Planning and Appraisal (Defra 2001).
- Flood and Coastal Defence Project Appraisal Guidance (PAG) 5: Environmental Appraisal (MAFF 2000).
- The Strategic Environmental Assessment Directive: Guidance for Planning Authorities. Practical guidance on applying European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment' to land use and spatial plans in England (ODPM 2003).
- Conservation (Natural Habitats &c.) Regulations 1994 (as amended) and the Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007.
- A Practical Guide to the Strategic Environmental Assessment Directive (ODPM 2005)

There is no legal requirement to undertake SEA for Shoreline Management Plans (SMP) because they are not required by legislation, regulation or administrative provision. However, SMPs do set a framework for future planning decisions, and have the potential to result in significant environmental effects. As a result, Defra guidance, best practice guidelines and internal policy have identified a need to undertake a SEA.

² Defra (2006): *Shoreline Management Plan Guidance Volumes 1 and 2*

1.1.4 Structure of this Appendix

- Section 1 – Introduction and Background: describes the purpose of SEA, the SEA Directive, Regulations and Guidance and sets out the structure of this appendix.
- Section 2 – Appraisal Process/Methodology: sets out the SEA process used during the development of the SMP and provides an SEA compliance table to show how and where the requirements of the SEA Directive have been fulfilled, in the SMP.
- Section 3 – Strategic and Policy Context: explains the context of the SEA in the wider planning system and signposts relevant appendices that describes relevant plans and policies.
- Section 4 – Baseline Environment: this references the Environmental Baseline report (Thematic Review) that was prepared during the preparation of the SMP, and explains the links between the themes and SEA receptors.
- Section 5 - Establishing SEA Environmental Objectives: provides a list of the SEA objectives that were used to appraise preferred SMP policy options.
- Section 6 – Consultation: describes communications on the SEA /SMP and how this has amended the plan, this is detailed within Appendix B of the SMP ‘Stakeholder Engagement’.
- Section 7 - Options Appraisal: describes the generic SMP policy options and their links to policy scenarios that were developed for the SMP. This section signposts Appendix F ‘Policy Development and Appraisal’, which presents the environmental assessment of the alternative policy scenarios.
- Section 8 – The Environmental Effects of the Plan: describes the environmental assessment of the preferred plan including consideration of the Habitats Regulations Assessment, Water Framework Directive Assessment, cumulative environmental impacts and monitoring. This section signposts Annex I of this document, which presents the environmental assessment of the preferred policies.

It should be noted that some of the information contained within the main SMP documents is duplicated within this appendix for clarity and greater understanding of the SEA process.

I.2 Appraisal Process/Methodology

I.2.1 SEA Process

A detailed list of SEA stages and tasks, and their purpose, is shown in Table 2.1, which is taken from “A Practical Guide to the Strategic Environmental Assessment Directive” published by the Office of the Deputy Prime Minister in 2005

(<http://www.communities.gov.uk/documents/planningandbuilding/pdf/practicalguidesea.pdf>).

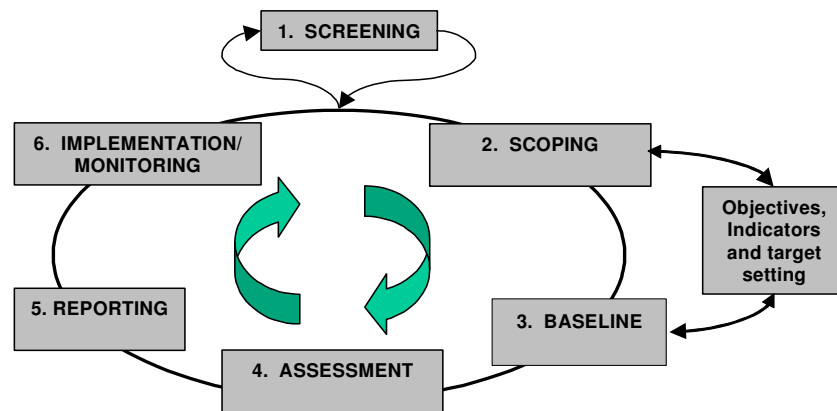
Table 2.1 SEA Stages and Tasks

SEA stages and tasks	Purpose
<i>Setting the context and objectives, establishing the baseline and deciding on the scope</i>	
Identifying other relevant plans, programmes and environmental protection objectives	To establish how the plan or programme is affected by outside factors, to suggest ideas for how any constraints can be addressed, and to help to identify SEA objectives.
Collecting baseline information	To provide an evidence base for environmental problems, prediction of baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring.
Identifying environmental problems	To help focus the SEA and streamline the subsequent stages, including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring.
Developing SEA objectives	To provide a means by which the environmental performance of the plan or programme and alternatives can be assessed.
Consulting on the scope of SEA	To ensure that the SEA covers the likely significant environmental effects of the plan or programme.
<i>Developing and refining alternatives and assessing effects</i>	
Testing the plan or programme objectives against the SEA objectives	To identify potential synergies or inconsistencies between the objectives of the plan or programme and the SEA objectives and help in developing alternatives.
Developing strategic alternatives	To develop and refine strategic alternatives
Predicting the effects of the plan or programme, including alternatives	To predict the significant environmental effects of the plan or programme and alternatives.
Evaluating the effects of the plan or programme, including alternatives	To evaluate the predicted effects of the plan or programme and its alternatives and assist in the refinement of the plan or programme.
Mitigating adverse effects	To ensure that adverse effects are identified and potential mitigation measures are considered.
Proposing measures to monitor the environmental effects of plan or programme implementation	To detail the means by which the environmental performance of the plan or programme can be assessed.
<i>Preparing the Environmental Report</i>	
Preparing the Environmental Report	To present the predicted environmental effects of the plan or programme, including alternatives. In a form suitable for public consultation and use by decision-makers.
<i>Consulting on the draft plan or programme and the Environmental Report</i>	
Consulting the public and Consultation Bodies on the draft plan or programme and the Environmental Report	To give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report and to use it as a reference point in commenting on the plan or programme. To gather more information through the opinions and concerns of the public.
Assessing significant changes	To ensure that the environmental implications of any significant changes to the draft plan or programme at this stage are assessed and taken into account.
Making decisions and providing information	To provide information on how the Environmental Report and consultees' opinions were taken into account in deciding the final

SEA stages and tasks	Purpose
	form of the plan or programme to be adopted.
Monitoring the significant effects of implementing the plan or programme on the environment	
Developing aims and methods for monitoring	To track the environmental effects of the plan or programme to show whether they are as predicted; to help identify adverse effects.
Responding to adverse effects	To prepare for appropriate responses where adverse effects are identified.

The SEA process in Table 2.1 has been applied to the development and assessment of the North Devon and Somerset SMP.

Figure 2.1 Summary of the SEA Process



The key elements of the approach are described in further detail below:

1.2.1.1 Screening and Scoping

Screening determines whether there is a need for SEA for the Plan or Programme being initiated. In this case there is no legal requirement to apply the ‘SEA Regulations’ to SMP, but best practice guidelines, and those of Defra, support the preparation of a voluntary SEA for SMPs. They strongly encourage the adoption of SEA for SMPs so that there is due regard for the environmental implications and extensive consultation of SMPs, as they help set the framework for future planning (www.defra.gov.uk).

No standalone Scoping Report was prepared during the development of the SMP, however, the scoping process (i.e. identification of the environmental receptors likely to be impacted by SMP policies and objective setting for the plan or programme) was undertaken during the production of the Environmental Baseline report (Thematic Review) – see **Appendix D** and the **Issues & Objectives Evaluation Report** – see **Appendix E**.

Consultation was carried out at the scoping stage with key stakeholders (see **Appendix B ‘Stakeholder Engagement’**) including statutory consultees to obtain relevant baseline environmental information and to understand key concerns and issues. The stakeholders were consulted on both the SEA Environmental Baseline Report (Thematic Review) and Issues and Objectives Tables together. The responses received during this consultation phase fed into the prioritisation and importance of SEA receptors in the option appraisal

process. Table 2.2 summarises the issues we scoped into the development of the plan, and the resulting SEA objectives we developed against which to test our alternative policy options. Not all of these issues are equally relevant everywhere in our plan area.

Table 2.2 Scope of the SEA in relation to the SMP

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
Biodiversity, Flora and Fauna	<p>Sites designated as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites</p> <p>The need to undertake an Appropriate Assessment for Natura 2000 sites is also considered.</p>	<p>International conservation sites that will not be affected by flooding, erosion or flood defence.</p>	<p><i>To support natural processes and maintain the integrity of internationally designated nature conservation sites and the favourable condition of their interest features and allow natural processes</i></p> <p>Note: for SPAs, SACs and RAMSAR sites our aim is to have no significant detrimental impact on the features of the site for which it is designated. Where we can not demonstrate that a significant detrimental effect is not likely we will undertake an Appropriate Assessment in accordance with the requirements of the Habitats Directive.</p>	<p>Within the SMP area, there are Natura 2000 sites (SPA, SAC and Ramsar).</p> <p>Some of these sites habitats are vulnerable to change in size, composition and distribution due to changes in coastal geomorphology resulting from flooding, erosion or coastal defence interventions. This may affect the species the site can support.</p> <p>The SMP may have significant effects (adverse or beneficial) on the Natura 2000 sites, opportunities will be sought to benefit biodiversity.</p>
	<p>Sites designated as Sites of Special Scientific Interest (SSSIs), National Park, Marine Nature Reserve and National Nature Reserves (NNRs).</p>	<p>National conservation sites that will not be affected by flooding or erosion.</p>	<p><i>To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites and allow natural processes.</i></p>	<p>Within the SMP area, there are 28 SSSIs, 1 National Park, 1 Marine Nature Reserve (with no take zone) and Marine Sensitive Area and 5 NNRS.</p> <p>These sites are vulnerable to change in the size and composition of habitats due to changes in coastal geomorphology resulting from flooding, erosion or coastal defence interventions. This may</p>

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
				<p>effect the species the site can support.</p> <p>The SMP may have significant effects (adverse or beneficial) on these sites, opportunities will be sought to benefit biodiversity.</p>
	<p>Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves (LNRs), non-statutory nature reserves.</p>	<p>Local conservation sites that will not be affected by flooding or erosion</p> <p>Biodiversity Action Plan (BAP) Habitats and Species have been scoped out. Instead they will be assessed during subsequent strategies or projects where a sufficient level of knowledge and detail of proposals are available.</p>	<p><i>To avoid adverse impacts on, conserve and where practical enhance the designated interest of locally designated conservation sites</i></p>	<p>Within the SMP area, there are 103 County Wildlife Sites, 7 LNRs and 4 Local Wildlife Sites. All have potential to be affected (positively or negatively) by changes in flooding or erosion and by coastal defence interventions.</p> <p>There are 16 UK Broad BAP habitats and 47 Priority BAP habitats and 34 UK Priority BAP species. Future flood risk management policies may present opportunities for biodiversity gain at these non-designated sites and these have been explored during the development of the SMP.</p>
Soils and Geology	<p>Sites designated as SSSIs (geological), Regionally Important Geological Sites (RIGS)</p>	N/A	<p><i>To support- natural processes and maintain visibility of geological exposures throughout internationally and nationally designated Earth Heritage sites</i></p>	<p>Within the SMP area, there are 17 geological SSSIs. All have potential to be affected by changes in flooding or erosion, particularly in a negative way by coastal defence interventions.</p>
Air, and Climatic factors	<p>Climate change</p>	<p>As air quality and noise levels will not influence or be affected by the recommendations of this SMP, these receptors have been</p>	<p>No objective developed – Defra’s recommended allowances for sea level rise have been used to provide erosion lines and flooding scenarios for the SMP and this</p>	N/A

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
		scoped out.	baseline data has been included.	
Water	<p>Sites included are designated bathing waters, historic and active landfill sites (EA source) known bathing water sites, surface and ground water.</p> <p>Public consultation also made us aware of some sites.</p> <p>Consideration will be made of the Water Framework Directive 2000.</p>	Known areas of contaminated land held by the local authorities as this was not made available during the assessment.	<i>To prevent pollution from contaminated sources</i>	There is the possibility that contaminants can be spread over a wide area if they become eroded and are transported by tidal flooding.
Landscape Character and Visual Amenity	Sites designated as National Parks, Areas of Outstanding Natural Beauty (AONB), Coastal preservation Areas and Heritage Coasts	Locally important landscapes designated by the local authorities.	<i>To conserve and enhance AONBs (by maintaining the highest quality of undeveloped coastal and estuarine landscape as a defining feature of the AONB) and avoid conflict with AONB Management Plan or Heritage Coast Objectives.</i>	Within the SMP area, there is 1 National Park, 3 AONBs and 3 Heritage Coasts. All have potential to be affected by changes in flooding or erosion, in a negative way by coastal defence interventions or in a positive way through allowing natural processes.
Historic Environment (Cultural Heritage)	Sites designated as Scheduled Monuments, Registered Parks and Gardens, Listed Buildings, Protected Wreck Sites, built Conservation Areas and non-designated archaeology of national importance. Local and regionally important non-designated archaeology will be considered, but assessment will occur at a project level.	The impact on unknown archaeology, will be considered at project level.	<i>To avoid loss of scheduled and other internationally and nationally important historic environment assets and features.</i>	Within the SMP area there are 52 Scheduled Monuments, over 26 Registered Parks and Gardens, as well as numerous Listed Buildings and two protected wreck sites. All have potential to be affected (positively or negatively) by changes in flooding or erosion.

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
Material Assets	Ports and harbours, boatyards, moorings, yacht and sailing clubs. Ferry terminals Coastguard, lifeboat and lifeguard. Access to the sea and navigation.	N/A	<i>To minimise the impact of policies on marine operations and activities</i>	Within the SMP area there are 13 Ports and Harbours and 4 Marinas/sailing clubs. There are numerous places where fishing fleets reside. All could be affected through SMP policy.
	Motorways, A and B minor roads (where linkage is a key issue), National and Regional Railway lines and stations	N/A	<i>To ensure critical road and rail linkages are maintained</i>	Within the SMP area there are Motorways and Minor Roads as well as Main and Regional Railway Lines which could be impacted on in a negative way through flooding or erosion.
	Pumping stations, sewage works, landfills, power stations, sub-stations. Access for emergency services.	N/A	<i>To ensure critical services remain operational</i>	Within the SMP there are National and regional services that may be impacted on by flooding or erosion.
Land Use	Grades 1 – 3A Farmland	Low grade agricultural land (grades 3A to urban)	<i>To avoid loss due to erosion of and/or manage risk of flooding to agricultural land</i>	The SMP Coastline is largely rural and there is potential for agricultural land to be impacted on in a negative way through erosion or flooding.
Human Beings	The impact of flooding on housing and communities they live in.	Disease, stress and trauma as a result of flooding/erosion is not considered at this level of plan.	<i>To avoid loss of property due to erosion and/or manage risk of flooding to people and property</i>	The SMP Coastline has people and property at risk of flooding and erosion.
	Sites included are key vulnerable community facilities (e.g.. surgeries, hospitals, aged persons homes, schools, shops, churches, libraries etc), key amenity facilities (e.g.. public open space, car parks etc), key recreational		<i>To avoid loss due to erosion of and manage risk of flooding to key community, recreational and amenity facilities</i>	The SMP Coastline has key Community facilities at risk of flooding and erosion.

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
	facilities (e.g.. bathing beaches, swimming pools, Country Parks, Castles and Forts) and access to community/amenity facilities. Public Rights of Way (e.g.. the South West Coast Path National Trail) will be considered.			
	Shops, offices, businesses, factories, warehouses, golf courses, areas identified for regeneration, nursery grounds, caravan parks, stone and mineral extraction sites, and other key areas of employment	N/A	<i>To avoid loss due to erosion of and manage risk of flooding to industrial, commercial and economic assets and</i>	

1.2.1.2 Establish SEA Objectives

A recognised way of considering the environmental effects of a plan and developing sustainable coastal management policies is the identification of agreed broad or SMP wide SEA objectives for developing and appraising sustainable policy options at a later stage in the assessment process.

A list of SEA objectives for the SMP was developed through consultation with key organisations. The objectives are described in Section 5 of this document.

1.2.1.3 Baseline Data Collection

Baseline data was collected to provide a baseline against which the significant environmental effects of the plan could be measured and assessed. The baseline data identifies the key environmental issues and trends that characterise the area covered by the SMP. An integral part of the SMP development process has been the identification of strategically important environmental issues that need to be addressed by future shoreline management along a particular stretch of coastline, which are fundamental to policy appraisal. These features were identified through site visits, data review and extensive consultation with key external organisations and internal staff.

All economic, environmental and social assets or features of 'strategic' importance were identified along the coastline together with any key issues and benefits that may be important, particularly to stakeholders, or that may influence policy decision-making during the SMP appraisal process. The findings are presented within the Issues and Objectives Evaluation Report (Appendix E). A qualitative description was provided of issues along the coastal frontage where there may be conflicting interests in terms of coastal management. Consideration was also given to other plans and projects that may be relevant to the coastline.

The features or assets at risk of tidal flooding or erosion were identified using indicative erosion and flood risk zones.

1.2.1.4 Assessment methodology

The process of assessment involves the identification of potential environmental effects and an evaluation of the significance of the predicted environmental effects.

The methodology and appraisal used to identify and predict environmental effects on the SEA receptors and environmental features identified, arising from the SMP is outlined below: -

Identification of Impacts: Following the principles of 'Making Space for Water' (which is a Defra strategy that applies to England only to improve flood and coastal erosion risk management both for now and in the future), the methodology initially appraised a policy of no active intervention throughout the coastline (see Appendix C). The implications of no active intervention on the environmental features and issues identified during the Theme Review and Issues and Objectives were analysed to determine the potential environmental effects on the SEA receptors.

The environmental impacts identified during the no active intervention assessment were then compared against the SEA objectives to determine whether SEA objectives have been met, focusing on how and why objectives were (or were not) met (see Annex I of this Appendix). Through consultation with key stakeholders and elected members, key policy drivers were identified (see Appendix F). Alternative policy scenarios were appraised where there was a clear need to protect identified assets (see Appendix G).

Significance of Impacts: The direct and indirect impacts arising within each SMP section of coast and epoch (short-term, medium-term and long-term) were identified and assigned a level of strategic significance using

professional judgement. This significance of effect took into consideration the importance of a receptors feature (e.g. local – International value) and the magnitude of the impact (minor – major).

Significance is recorded in the Environmental Assessment of Preferred Policy Options (Annex I.1) as being minor, moderate or major adverse or beneficial. Where no effect was identified a neutral effect was assigned.

Mitigation Measures: These were identified for inclusion in the assessment process, and included avoidance and measures to minimise adverse effects. It is assumed that mitigation measures will follow through to strategy then be picked up at scheme level (see Annex 2 of this Appendix).

Selection of the Preferred SMP Policy Scenarios: This was based on the appraisal of policy scenarios, from which the environmentally preferred policy scenarios were identified. An explanation and justification for the selection of non-environmentally optimal policy scenarios on the basis of technical or economic grounds was also provided (see Appendix G).

Cumulative impacts: the SEA Directive requires the analysis of cumulative effects of the strategic options on the environment (see Section 8 of this Appendix).

It should be noted that as part of the assessment process, a Water Framework Directive Assessment (Appendix K) and a Habitats Regulations Assessment (Appendix J) were undertaken. Both of these assessments significantly affect the SMP process and decision-making.

1.2.1.5 Consultation

Consultation has been undertaken with a wide range of statutory and non-statutory consultees and stakeholder groups throughout the development of the SEA and the SMP and is discussed further in Section 6 ‘Stakeholder and Public Engagement’ of this document and in Appendix B.

1.2.1.6 Reporting

The SEA was integrated (in process terms) into the SMP and this report describes how the North Devon and Somerset SMP achieves the requirements of the 2004 SEA Regulations³. The results of the SEA process are documented in this report, which identifies, describes and evaluates the likely effects of the SMP as well as any reasonable alternatives. This report documents the SEA process undertaken with respect to the North Devon and Somerset SMP2. It sets out how alternative policy options were appraised against environmental objectives and identifies and evaluates likely environmental effects, both positive and negative, of preferred policy options. It sets out how adverse effects will be mitigated and describes recommended follow up actions.

1.2.1.7 Implementation and Monitoring

The key principles of monitoring are to ensure that the mitigation measures are implemented and effective and to monitor the potentially significant environmental effects identified during the assessment.

Section K8.5 discusses the proposed monitoring of the predicted environmental effects of the plan, which have been reflected and incorporated into the **SMP Action Plan**.

1.2.2 SEA Compliance

To meet the requirements of the SEA Directive, a SEA compliance table (Table 2.3) is provided below, which is sub-divided into sections detailing the key requirements of the SEA Regulations and where this information can be located (or is signposted to other SMP documents) within this SEA appendix.

³ HMSO (2004): *The Environmental Assessment of Plans and Programmes Regulations 2004 (No 1633)*

Table 2.3 *SEA compliance table*

Environmental requirements	Location of information within SMP report
(a) an outline of the: <ul style="list-style-type: none"> • contents • main objectives of the plan or programme • relationship with other relevant plans and programmes 	Main document – Table of contents Main document – Section 2.2 Main document – Section 4 Appendix E – Section 1.1.4 – Links to other plans and projects Appendix D – Section 6.2 – Future land use/planning targets
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Appendix E – Issues and objectives with no active intervention Section 1.2 – No active intervention assessment of impacts upon issues and objectives Appendix C – Baseline process understanding
(c) the environmental characteristics of areas likely to be significantly affected	Appendix D – Environmental baseline (theme review) Section 3 – Natural environment Section 4 – Landscape character and visual Section 5 – Historic environment Section 6 – Land use, infrastructure and material assets Section 7 – Population and human health
(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Appendix D – Environmental baseline (theme review) Appendix E – Issues and objectives with no active intervention Section 1.2 – see key considerations column of tables Appendix J – Form HR01 & HR02
(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Appendix E – Issues and objectives with no active intervention Appendix F - Initial Policy Appraisal
(f) the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, historic environment, landscape and the interrelationship between the above factors	Main document Section 2.6 – The environmental effects of the plan Section 5 – Policy statements Appendix I (this document) Assessment and evaluation of environmental effects
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Appendix I (this document) Assessment and evaluation of environmental effects
(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;	Appendix I (this document) Assessment and evaluation of environmental effects Main document – Summary of preferred plan recommendations and justification Appendix G – Preferred option

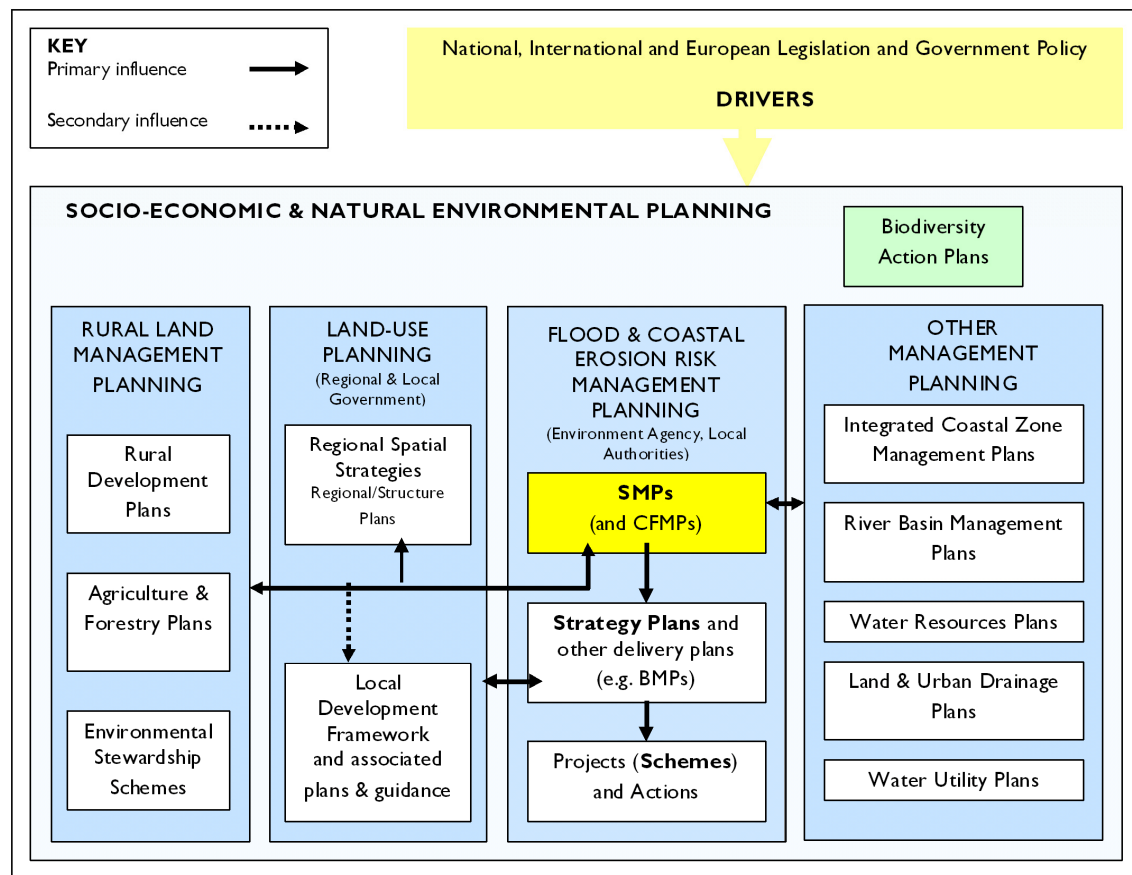
Environmental requirements	Location of information within SMP report
(i) a description of the measures envisaged concerning monitoring in accordance with Article 10;	Appendix I (this document) Assessment and evaluation of environmental effects
(j) a non-technical summary of the information provided under the above headings.	Main document

1.3 Strategic and Planning Policy Context

A Shoreline Management Plan (SMP) provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks in a sustainable manner with respect to people and to the developed, historic and natural environment. The SMP is a non-statutory, policy document for coastal flood and erosion risk management planning. It takes account of other existing planning initiatives and legislative requirements and is intended to inform wider strategic planning. It does not set policy for anything other than coastal flood and erosion risk management. Figure 3.1 demonstrates how the SMP fits into the wider planning system.

Appendix D ('Theme Review') presents a review of relevant Plans, Policies and Strategies to the SMP and provides an overview of relevant planning policies at a national, regional and local level.

Figure 3.1 *SMP and the Planning System*



Full details of the procedure followed in development of the SMP are set out in **Appendix A**.

1.4 Baseline Environment

The current state of the environment is described in the SEA Environmental Baseline ‘Theme Review’, presented in **Appendix D**, which identifies

- the key environmental features or assets (natural environment, landscape character, historic environment, land use, infrastructure and material assets, and population and health) along the coastline
- includes commentary on the characteristics, status, relevant designations and importance of the features and the ‘benefits’ they provide to the wider community.
- includes the environmental characteristics of areas likely to be significantly affected and any existing environmental problems, which are relevant to the SMP including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.
- includes the environmental characteristics of areas likely to be significantly affected and any existing environmental problems, which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.
- provides mapping of the boundaries of the key environmental features or assets identified along the coastline.

Table 4.1 *Environmental Features within the SMP Area*

SEA Receptor described in the Environmental Assessment of Plans and Programmes Regulations SI 2004 1633	Environmental Features
Flora, Fauna and Biodiversity	<p>There are 8 internationally designated sites wholly or partly within the North Devon and Somerset SMP study area. The study area supports a variety of habitats including red sand stone cliffs, mudflats, saltmarsh, estuaries, sand dunes, reedbeds, marshland, woodland, heathland and grassland. The quality of these natural habitats along the coastline is reflected in the designation of the following international nature conservation sites: -</p> <ul style="list-style-type: none"> • 1 UNESCO International Biosphere Reserve Area at Braunton Burrows • 1 Special Protection Areas (SPA) and Ramsar sites in the Severn Estuary • 6 Special Areas of Conservation (SAC) at Lundy Island, Tintagel-Marsland-Clovelly Coast, Braunton Burrows, Exmoor Coastal Heaths, Mendip Limestone Grasslands and Severn Estuary. <p>There is 1 Marine Nature Reserve with Marine Protected Area; 56 Sites of Special Scientific Interest, 1 National Park, 4 National Nature Reserves, 7 Local Nature Reserves and 130 County Wildlife Sites and 4 Local Wildlife Sites.</p>
Soils and Geology	<p>The geological interest of the coastline includes stratigraphic features, which are reflected in a range of designated earth heritage sites of local, regional, national. Natural erosion is a key driver in maintaining the geological interest of the SSSI designated for geological features by exposing rock sequences in the cliff faces and releasing fossils to the beach.</p> <p>The geomorphology of the area is varied and includes shingle banks, sand dunes</p>

SEA Receptor described in the Environmental Assessment of Plans and Programmes Regulations SI 2004 1633	Environmental Features
	<p>and saltmarshes. The major shingle features of national importance are at Porlock Weir and Northam Burrows. There are significant sand dune structures, located at Braunton Burrows (largest in the UK) and Brean and Berrow.</p> <p>Potential areas of known landfills are also present, such as at Northam Burrows and Porlock.</p>
Air and Climatic Factors	The long term effects of rising sea levels expected due to climate change could have significant implications for future flood risks to the natural, historic and built environment across large areas of low-lying land in the SMP area.
Water	Within the SMP area, there are 9 Transitional and Coastal Waterbodies, 45 River Waterbodies, 1 Lake Waterbody and 6 Groundwater Bodies. These all have the potential to be affected by SMP policies and are considered further in the WFD Assessment in Appendix K.
Landscape	<p>The coast is composed predominantly of sea cliffs of red sandstone known as hog backed with heaths, woodlands and agricultural land, punctuated by valleys and estuaries, cobbled beaches and raised beaches. These features owe their variety and interest to the relief and orientation of the coastline, the different properties, lithology and structure of the rocks and coastal processes. The coastline of Devon is internationally renowned for coastal landforms such as Saunton Sands. Other landscape types include developed urban centres and undeveloped agricultural land, much of which exhibits ancient (Medieval) field patterns.</p> <p>The high value of the landscape in the SMP area is recognised by the designation of Exmoor National Park of North Devon Area of Outstanding Natural Beauty, four Heritage Coasts and the 'UNESCO International Biosphere Reserve Area.</p>
Cultural Heritage, including architectural and archaeological heritage	The SMP area contains a complex array of statutory historic buildings (e.g. Scheduled Monuments, Listed Buildings), Registered Parks and Gardens, non-statutory buildings and find spots, historic settlements, maritime archaeology, , Conservation Areas, historic landscapes and numerous unscheduled sites of importance, some of which are nationally important.
Material Assets	Material assets along the coastline of the SMP area comprises a combination of predominantly moderate quality agricultural land, beaches, A- and B-roads, urban areas (see population below), fishing ports and harbours, stone and mineral extraction sites and historic/active landfill sites.
Population and Human Health	Safety, security and social/physical well-being for occupants of properties within areas at coastal flood or erosion risk. Population and properties are concentrated in Westward Ho! Bideford, Appledore, Barnstaple, Braunton, Woolacombe, Ilfracombe, Lynmouth, Minehead, Watchet, Bridgwater, Burnham-on-Sea, Highbridge, Weston-Super-Mare, Brean and Berrow and other smaller towns/villages. Recreation and tourism in the study area is largely centred on the coastline. Land based activities generally rely on the natural environment and comprises swimming, beaches, walking, fishing, bird watching and rock climbing. Water sports are also a popular pursuit particularly surfing and kite surfing.

Appendix D also provides consideration of environmental features that will or will not affect or be affected by the recommendations of the SMP.

In addition to the review of the natural and human environment, the extent and nature of existing coastal defence structures and management practices are presented in **Appendix C**, along with an assessment of shoreline dynamics and interactions, which identifies the contemporary physical form of the coastline and the natural processes operating upon it.

I.5 Establishing SEA Environmental Objectives

An integral part of the SMP development process has been the identification of issues and definition of objectives for future management of the shoreline. This was based upon an understanding of the existing environment (**Appendix D**), the aspirations of stakeholders and an understanding of the likely evolution of the shoreline under a hypothetical scenario of 'No Active Intervention' (**Appendices C and E**), which identifies the likely physical evolution of the coast without any future defence management and hence the potential risks to shoreline features from flooding and erosion. These objectives include all relevant plans, policies, etc, associated with the existing management framework, including all identified opportunities for environmental enhancements.

The SEA Environmental Objectives, which differ to the four high-level SMP objectives that are defined in the SMP guidance (Defra 2006⁴) and described in Section II, are based on the SEA receptors described in the EU SEA Directive (2001/42/EC), as follows:

A list of SEA environmental objectives for the SMP was developed following identification of key environmental features or assets along the coastline, and through a review of aerial photography, maps and consultation with key external organisations and internal staff. SEA objectives were identified for the SMP to appraise the preferred policy options during the assessment process.

Key objectives of the SEA process are to ensure that the SMP is consistent with relevant strategic environmental objectives, environmental regulations, best practice and the objectives of other parties, and, to identify fundamental strategic environmental constraints and opportunities at the outset of the study. The SEA ensures that appropriate mitigation measures are identified where necessary. The SEA follows a similar approach to scheme-level environmental assessment, but differs in being a high level overview, setting broad objectives and identifies generic approaches. Consultation has been undertaken with the aim of agreeing the objectives with a wide-variety of stakeholders, and ensuring that the SMP is environmentally sustainable.

The definition and appraisal of objectives has formed the focus of engagement with stakeholders during development of the SMP (as identified in **Appendix B**). The full list of issues and objectives defined for this SMP are presented in **Appendices E and F**.

The objectives developed for the SMP, which were used to develop appraise and appraise sustainable policies are provided in Table 5.1.

Within the environmental objectives, a distinction has been made between those that arise from legal (shown in ***bold italics***) and those that do not represent legal obligations. The relevant Strategic Environmental Assessment (SEA) receptor to which the objectives relate, are shown in brackets.

⁴ Defra (2006): *Shoreline Management Plan Guidance Volumes 1 and 2*

Table 5.1 SEA Objectives

	Generic SEA Objectives	Features covered by the objective
Social	To avoid loss of property due to erosion and/or manage risk of flooding to people and property. (Population and human health)	Houses Community
	To avoid loss due to erosion of, and manage risk of flooding to, key community, recreational and amenity facilities. (Population and human health)	Key vulnerable community facilities e.g. surgeries, hospitals, aged persons homes, schools, shops, churches and libraries Key amenity facilities e.g. public open space and car parks Key recreational facilities e.g. bathing beaches, swimming pools, country parks, public rights of way, castles and forts Access to community/amenity facilities
Economic	To avoid loss due to erosion of and manage risk of flooding to industrial, commercial and economic assets and activities. (Population, material assets)	Shops, offices, businesses, factories, warehouses, golf courses, areas identified for regeneration, commercial fishing grounds, caravan parks, stone and mineral extraction sites, military establishments and others areas of employment
	To minimise the impact of policies on marine operations and activities. (Material assets)	Ports, harbours and boatyards Moorings, yacht and sailing clubs, lifeboats and ferry terminals Dredging activities, Coastguard, lifeboat and lifeguard Access to the sea and navigation
	To ensure critical road and rail linkages are maintained. (Material assets)	Motorways, A, B and minor roads (where linkage is a key issue) Railway lines and stations
	To ensure critical services remain operational. (Material assets)	Pumping stations, sewage works, landfills, power stations and, sub-stations
Environmental	<i>To allow natural processes and maintain visibility of geological exposures throughout geological Sites of Special Scientific Interest.</i> (Geology and soils)	Geological Sites of Special Scientific Interest
	<i>To maintain the integrity of internationally designated sites.</i> (Flora, fauna and biodiversity)	United Nations Educational, Scientific and Cultural Organisation (UNESCO) Biosphere Site, Special Protection Areas, Special Area of Conservation and Ramsar Sites
	<i>To avoid adverse impacts on, conserve and, where practical, enhance the designated interest of nationally designated conservation sites.</i> (Flora, fauna and biodiversity; geology and soils)	Sites of Special Scientific Interest, National Nature Reserves, Marine Nature Reserves, Exmoor National Park
	To avoid adverse impacts on, conserve and, where practical, enhance the designated interest of locally	Local Nature Reserves County Wildlife Sites

	Generic SEA Objectives	Features covered by the objective
	designated conservation sites. (Flora, fauna and biodiversity; geology and soils)	These sites will be considered, but assessment will occur at a scheme and project level.
	To prevent pollution from contaminated sources. (Geology and soils, water)	Relict landfill sites, disused mines, potentially contaminated land, bathing water, surface and ground water
	To avoid adverse impacts on scheduled and other nationally, regionally and locally important historic environment sites. (Historic Environment)	Scheduled Monuments Registered parks and gardens Listed Buildings Protected wrecks Non-designated archaeology of local or regional importance will be considered, but assessment will occur at a scheme and project level.
	To avoid conflict with Areas of Outstanding Natural Beauty management plan, National Park heritage coast and coastal preservation area objectives. (Landscape)	National Park Areas of Outstanding Natural Beauty Heritage coasts Coastal preservation areas Coastal zones
	To avoid loss due to erosion of and/or manage risk of flooding to agricultural land. (Population, soils)	Grades 1 to 3 farmland
	To achieve compliance with Water Framework Directive objectives. (Water)	Relict landfill sites, potentially contaminated land, bathing water, surface and ground water

I.6 Consultation

I.6.1 Approach

Full details of all stages of stakeholder engagement undertaken during development of the draft Plan are presented in **Appendix B ‘Stakeholder Engagement’** together with the responses received. This includes the copies of briefing materials and records of stakeholder inputs.

Consultation has been central to the development of the SEA in order to arrive at a SMP that is acceptable to as many parties as possible and to engage those parties in the process. Effective external stakeholder and public engagement has been essential for data collection, identification of key issues, definition of SEA objectives, development of policy scenarios and the selection of the preferred SMP.

The main purpose of communicating with stakeholders throughout the development of the SEA is to:

- contribute to the success of the SMP and improve decision-making in the coastal zone by
 - raising awareness of environmental management issues relating to tidal flooding and coastal erosion;
 - allowing stakeholder input into the environmental decision-making in the context of the SMP;
 - informing the development of the SEA by identifying, and where appropriate, addressing the concerns of external parties;
 - giving stakeholders an opportunity to comment on the environmental appraisal of options;
 - allowing representations made by stakeholders to be taken into account throughout the SEA process, particularly in the selection and environmental assessment of policy options;
 - giving the public an opportunity to comment on the preferred policies; and
 - ensuring that the completed SMP influences coastal management decisions, plans and strategies (e.g. development planning).
- meet regulatory requirements for consultation under the EU SEA Directive.

The consultation process has been active from the inception stage and has continued throughout the development of the SMP. The main activities have comprised: -

- Invitations to provide data and comments on key concerns;
- Circulation of documents for comment;
- Stakeholder meetings and workshops.

I.6.2 Stakeholders

The consultation groups (‘stakeholders’) that were actively consulted at key points throughout the SEA and SMP are listed in **Appendix B ‘Stakeholder Engagement’** and have included: -

- Client Steering Group (CSG) – Client Steering Group comprises representatives from seven local authorities, the Environment Agency and other key bodies with a remit to agree the various stages of the SMP as it progresses. Other members of the group are: Natural England, who provide guidance on nature conservation; North Devon Council (Lead Authority), with coastal management interests;

English Heritage and representatives from the National Trust, who both provide guidance on heritage issues, as well as North Devon Biosphere Reserve, Exmoor National Park, Royal Society for the Protection of Birds, and Plymouth Coastal Observatory (SW Regional Coastal Monitoring Programme) who collectively provide local and strategic knowledge. This group has met throughout the SMP development, agreeing to the outputs once they have been discussed with stakeholders.

- Key Stakeholder Forum (KSF) - The KSF includes representatives from interests including local authorities, nature conservation, industry and heritage. This group has met periodically throughout the SMP development process to input information and review outputs as the study progressed. The KSF acts as a focal point for discussion and consultation throughout the development of the SMP.
- Elected Members Forum (EMF) - The EMF comprises a representative from each of the local authorities and the Environment Agency, attending with a remit to agree the various stages of the SMP as it progresses. Again, this group has met throughout the plan development, agreeing to the outputs once they have been discussed with the KSF. Local Authority Elected Members have been involved from the beginning, thereby reducing the likelihood that the policies will not be approved by the planning authorities. They were involved through a Forum, building trust and understanding between Elected Members, the CSG and KSF.

Statutory, non-statutory and local organisations and members of the general public have also been involved in the development of the SMP and associated SEA process.

1.6.3 Stages of Consultation

Tables presenting the stakeholder strategy for both the SMP and SEA are provided in **Appendix B 'Stakeholder Engagement'**.

A summary of the stakeholder strategy for the purposes of SEA is provided in Table 6.1.

Table 6.1 *Summary of Stakeholder Strategy*

Stage of Plan Preparation	Activity	Dates	Purpose of stakeholder involvement	Stakeholders involved	Method of involvement
Stage 1: SMP Scope	Initial Stakeholder contact	April 2008 to August 2008	<ul style="list-style-type: none"> • Inform interested parties that an SMP is being prepared (on behalf of Defra and coastal operating authorities). • Segregate interested parties into appropriate stakeholder groups. • Request information, e.g. technical reports and photos. • Gather views on issues and objectives relating to the SMP coast. 	<ul style="list-style-type: none"> • Elected Members • Regional Flood Defence Committee • Key stakeholders • Other stakeholders • General public 	Letter, questionnaire and information leaflet (different letters sent to different groups).
Stage 2: Assessments to support policy	Elected Members Forum and Key Stakeholders Forum	October 2008 and January 2009 respectively	<ul style="list-style-type: none"> • Introduce the SMP process. • Request information. • Draft issues and objectives table presented for discussion. • Draft management options presented for discussion. 	<ul style="list-style-type: none"> • Elected Members • Regional Flood Defence Committee • Local MPs • Key Stakeholders • Other stakeholders • General public 	One Elected Members Forum was held and a series of 3 stakeholder events along the SMP coastline. A press release was produced to advertise the stakeholder events. Events included presentations and open discussions.
Stage 3: Policy Development	Key Stakeholders Forum	July 2009	<ul style="list-style-type: none"> • Update on SMP Review to date. • Presentation of flood and erosion risk maps. • Examination of draft policy options in advance of producing policy statements. 	<ul style="list-style-type: none"> • Elected Members • Regional Flood Defence Committee • Key Stakeholders • Other stakeholders 	An Elected Members Forum, planned for June 2009, was cancelled and integrated with the Key Stakeholder Forum to ensure consistency of message provided. Event included presentations, work shops and open discussions.

Stage of Plan Preparation	Activity	Dates	Purpose of stakeholder involvement	Stakeholders involved	Method of involvement
	Planning Officers meeting	July 2009	<ul style="list-style-type: none"> • Introduce the SMP process and outline progress to date. • Details provided of how SMPs fit into the wider planning framework. • Examination of draft policy options in advance of producing policy statements. 	<ul style="list-style-type: none"> • Planning Officers 	<p>Environment Agency and Local Authority planners invited to attend meeting as their decision making will be influenced by SMP policies.</p> <p>Event included presentations and open discussions.</p>
Stage 4: Public Examination	Elected Members Forum	October 2009	<ul style="list-style-type: none"> • Launch of draft SMP2. • Elected Members made aware of the draft plan and the public consultation process. • To provide the opportunity for support and objection of the Plan, moving to resolve differences. 	<ul style="list-style-type: none"> • Elected Members • Regional Flood Defence Committee • Local MPs 	<p>Event included presentations, open discussion and exhibition.</p> <p>Distribution of consultation summary leaflet. Draft SMP2 document made available for viewing via www.ndascag.org.</p>
	Public Consultation	October 2009 to January 2010	<ul style="list-style-type: none"> • Stakeholders made aware of the draft plan and the public consultation process. • To provide the opportunity for support and objection of the Plan, moving to resolve differences. 	<ul style="list-style-type: none"> • Key stakeholders • Other stakeholders • General public 	<p>A series of 3 events were held along the SMP coast.</p> <p>Events included presentations, work shops, open discussion and exhibition.</p> <p>Distribution of consultation summary leaflet. Draft SMP2 document made available for viewing via www.ndascag.org.</p>
Stage 5: Finalise SMP		<i>To follow Public Consultation (Target completion: by December 2010)</i>	<ul style="list-style-type: none"> • <i>Review output from public examination and theme the responses.</i> • <i>Produce a Consultation Report on findings.</i> • <i>Meet with CSG to discuss the nature of feedback and amend the plan / policies if necessary.</i> • <i>Meet with EMF to discuss and agree the Final Plan and amend the plan / policies if necessary.</i> • <i>Draft and agree Action Plan.</i> 	<ul style="list-style-type: none"> • <i>Client Steering Group</i> • <i>Elected Members</i> • <i>Regional Flood Defence Committee</i> 	<p><i>Proposed changes to draft plan, Consultation Report and Action Plan reviewed by CSG.</i></p> <p><i>Outcomes relayed to the EMF.</i></p>

Stage of Plan Preparation	Activity	Dates	Purpose of stakeholder involvement	Stakeholders involved	Method of involvement
			<ul style="list-style-type: none"> • Meet with CSG to discuss EMF, the Action Plan and finalisation of the plan. • Update the Main Document and Appendices. • Present Members with the final plan. 		
Stage 6: SMP Dissemination		Target completion: by December 2010	<ul style="list-style-type: none"> • Disseminate to Local Authorities, Natural England, the Environment Agency, Defra and other Coastal Group members. • Update the SMP website: www.ndascag.org • Inform stakeholders of the final plan. 	<ul style="list-style-type: none"> • Elected Members • Regional Flood Defence Committee • Local MPs • Key stakeholders • Other stakeholders • General public 	<p>Hard copies and CD s.</p> <p>Information available to download in PDF format at www.ndascag.org.</p> <p>Summary leaflets disseminated at discretion of Coastal Group members.</p>

1.7 Options Appraisal

1.7.1.1 Assessment Methodology

The process of assessment involves the identification of potential environmental effects and an evaluation of the significance of the predicted environmental effects. Many environmental problems result from the accumulation of multiple small and often indirect effects. These problems may occur together at one point, or over a period of time to create significant cumulative effects; see further details in Section 1.8.1.1.

Following the principles of 'Making Space for Water', the methodology initially appraised a policy of no active intervention (Appendix E) throughout the coastline, by considering the impact on coastal behaviour and on the features and issues identified. It was then possible to determine whether objectives have been met, focusing on how and why objectives were (or were not) met. Through consultation with key stakeholders and elected members, key policy drivers were identified. Alternative policy scenarios (Appendix F) were appraised only where there was a clear need to protect identified assets. Sensitivity tests were then applied to consider how variations in policy scenarios may affect the achievement of objectives.

1.7.1.2 Identification and Review of Alternative Policy Scenarios

In order to ensure that all potential impacts of a coastal management policy decision are considered, rather than looking at individual policy units (i.e. frontages for which a single SMP policy option applies), the SMP guidance (Defra 2006) suggests developing a policy scenario. For the North Devon and Somerset SMP, SMP policy options were defined using the findings of **Appendix F**.

The following alternative Policy Scenarios were considered in Appendix F. In broad terms, Policy Scenario A represents a first approximation of appropriate policies, based upon current understanding of coastal dynamics and the key issues along this SMP coastline. Based upon feedback from key stakeholders and elected members, modifications have been made to appraise how varying policies could affect both the coastal evolution and the achievement of objectives. The modifications considered as part of Policy Scenario B consider a long term vision of a more naturally functioning coast, whilst the policies considered under Policy Scenario C assume that a primary driver in the future will be to protect most assets in the long term. For each policy unit one of the three SMP2 policy scenarios was assigned to each of the three epochs 0-20 years (short-term), 20-50 years (medium-term) and 50-100 years (long-term).

The selection of the preferred policy scenarios involved a comparison of the impacts of each alternative scenario on the environmental features and SEA receptors identified. The preferred environmental scenarios were selected as the preferred policy scenarios unless they were considered inappropriate; either technically unfeasible or socially unacceptable. An example of a preferred environmental scenario would be the presence of a European site supporting intertidal habitat - the preferred environmental scenario would generally be to either allow managed realignment or no active intervention of the coastline in order to allow the intertidal habitat to roll back naturally with sea level rise (unless constrained by inland features).

Where a preferred policy scenario was selected on social grounds e.g. holding the line to protect a significant community from flood or erosion risk, consideration was given to implementing the preferred environmental scenario (e.g. managed realignment) (identified in the environmental assessment) in a later epoch; thus allowing the local population time to adjust to the coastal change.

An assessment of shoreline interactions and response for the proposed scenarios is presented in **Appendix G**. The results of this assessment, in terms of risks to coastal features, were then used to appraise the

achievement of objectives for the policy scenarios. This is reported in the issues and objectives table in Appendix G.

1.7.2 Environmental Appraisal of Alternative Policy Options

Appendix F (Annex F.3) identifies the environmental impacts of each of the alternative policy options developed through an assessment of the SEA receptors set out in the SEA Directive, and has helped to identify the preferred environmental policy scenario for each coastal process unit. The generic impacts associated with each alternative SMP option is shown in Table 7.1.

Table 7.1 Potential generic implications of each SMP option

SMP option	Potential positive impacts	Potential negative impacts
Hold the Line (HTL)	<ul style="list-style-type: none"> • Protection of communities (residential, industrial, agricultural and commercial assets) and infrastructure • Protection of habitat landward of existing defences • Protection of freshwater resources (e.g. abstractions and boreholes) • Protection of material assets located behind defences • Protection of recreational, cultural and historical assets landward of the defences and provision of opportunities to improve the condition of heritage features/sites • Protection of potential sources of contamination 	<ul style="list-style-type: none"> • Coastal squeeze (loss of intertidal habitat) • Interruption of coastal processes • Potential increase of flood and coastal erosion risk elsewhere along coastline • Promotion of unsustainable land use practices • Ongoing commitment to future investment for maintenance and improvement of defences • Change in landscape character and reduced visual amenity and views of sea if defences raised or new defences constructed
Advance the Line (ATL)	<ul style="list-style-type: none"> • Provision of additional space for communities • Protection of communities and infrastructure from coastal flooding/erosion • Protection of habitat landward of original defences with increases in freshwater habitat • Protection of freshwater resources (e.g. abstractions and boreholes) • Protection of material assets located behind defences • Protection of recreational, cultural and historical assets landward of the defences 	<ul style="list-style-type: none"> • Reduction in extent of intertidal habitat • Change in function of the existing habitats • Increased coastal squeeze • Interruption of coastal processes • Potential increase in rate of coastal erosion either side of the advanced line • Potential loss of historical features either side of advance line due to erosion • Uncertainty of effects • Reduced visual amenity and change in landscape

SMP option	Potential positive impacts	Potential negative impacts
Managed Realignment (MR)	<ul style="list-style-type: none"> • Protection of potential sources of contamination • Landward migration of coastal habitat under rising sea levels to realigned defence • Creation of intertidal habitat in line with national targets compensating for coastal squeeze elsewhere • Creation of habitat for juvenile fish and other aquatic organisms (benefits to environment and fishing communities) • Reduction of flood/erosion risk to some areas • Promotion of natural coastal processes and contribution towards a more natural management of the coast • Creation of high tide bird roosts and feeding areas • Maintenance of geological exposures and earth heritage features 	<ul style="list-style-type: none"> • Increased flooding/erosion of realigned area • Change in condition or reduction of terrestrial/freshwater habitat landward of defences • Impact upon aquifers and abstractions • Loss of some assets in hinterland of defences (e.g. residential, industrial, agricultural and commercial assets) • Loss of recreational, heritage and cultural and historic features • Change in landscape • Uncertainty of effects
No active intervention (NAI)	<ul style="list-style-type: none"> • Landward migration of coastal habitats under rising sea levels • Promotion or continuation of natural coastal processes • Potential discovery of unknown archaeology • Maintenance of geological exposures and earth heritage features • Maintenance of natural landscape 	<ul style="list-style-type: none"> • Uncontrolled flood/erosion risk • Uncertainty of effects and time for adaptation • Increased risk of inundation to landward habitats under rising sea levels • Impact upon aquifers and abstractions • Loss of communities or community assets • Loss of and damage to heritage and cultural features • Risk of flooding/erosion of contaminated areas • Deteriorating defences become unsightly • Hazard to public access and loss of public rights of way.

I.8 Environmental Effects of the Plan

An environmental assessment of the preferred policy options is presented in **Annex I.1** of this appendix.

Based upon the output from the testing of policy scenarios, the preferred policy scenario has been defined. The preferred policy scenario for the whole coastline differs along its length, so to accommodate this, 88 individual Policy Units have been defined and 23 Policy Statements developed that set out how the management of the coast is to be undertaken that accounts for the needs of each individual unit in the wider coastal context.

The Policy Statements present the preferred policy scenario for each Unit, identifying its justification and how it will be achieved over the 100 year period. They also present the detailed implications of the policies and identify any mitigation measures that would be required in order to implement the policy.

Appendix G evaluates how the SEA objectives, and hence the ‘environment’, economic and social receptors, would be affected under the preferred policy scenario for each frontage, with consideration of environmental obligations.

Section 4 of the main SMP document includes the ‘Plan for Balanced Sustainability’, defining the broad environmental impacts of the plan based upon the appraisal of the objectives. This Section also presents the ‘Predicted Implications of the Preferred Policies’ under thematic headings.

The Policy Statements covering the 88 or so individual Policy Units presented in **Section 5 of the main SMP document**. Each Statement presents the Preferred Plan for the Unit(s) it covers, identifying its justification and presenting the preferred policies to achieve the Plan over the 100 year period. The detailed implications of the policies are presented and any mitigation measures that would be required in order to implement the policy identified.

Measures to monitor the environmental effects of implementing the Plan are provided in Section 2.6.

A retrospective Water Framework Directive (WFD) assessment has been prepared by Halcrow and can be viewed in **Appendix K ‘Water Framework Directive Assessment’** of the SMP. This WFD-related retrospective assessment takes into consideration the potential effects of SMP policy options on the ecological quality elements of the coastal and transitional water bodies directly affected by the SMP, and the associated river water bodies, which may also experience some indirect effect (such as shifting in the upper tidal limit in rivers).

1.8.1.1 Cumulative Environmental Impacts

SEA requires assessment of secondary, cumulative and synergistic effects. This section sets out the significant environmental effects of the plan as a whole, which have been considered in relation to each of the environmental objectives. It goes on to consider the environmental effects of potential interactions between the SMP and relevant plans and programmes within the study area. These findings are summarised in Table 8.1.

Table 8.1 Summary of Secondary, Cumulative and Synergistic Issues

SEA Environmental Objective	Cumulative effects across the whole plan area (sum of Policy Unit impacts)	Interaction of SMP with relevant Plans and Programmes
<p>To avoid loss of property due to erosion and/or manage risk of flooding to people and property. (Population and human health)</p>	<p>For much of the coastline, the preferred SMP policy is to maintain existing defences where economically viable in the long-term, thus having a positive impact on people, their health and property by protecting areas of significant urban development and developed parts of the coastline from flooding or erosion. Protection is predominantly focussed upon villages and towns, where the highest level of benefit is achieved including: Clovelly, Westward Ho!, Appledore, Instow, Northam, Bideford, East-the – Water, Yelland, Fremington, Bickington, Bishops Tawton, Barnstaple, Chivenor, Braunton, Lee, Ilfracombe, Combe Martin, Lynmouth, Minehead, Blue Anchor (part), Watchet, Bridgwater, Dunball, Combwich, Burnham on Sea Highbridge, Uphill, Weston-Super-Mare and the Wider Somerset Levels. However, some isolated properties, holiday parks and urban areas including Bucks Mill, Saunton, Middleborough, Vention, Lee Bay, Porlock Weir, Blue Anchor (part), Doniford and Lilstock may be affected by flooding/erosion, unless private funding is identified, as policies lead to a more ‘natural’ shoreline in the long-term have been identified.</p> <p>For the preferred policies, the total loss of housing to coastal erosion through the whole SMP area up to year 2025 is up to about 12 residential and commercial properties. In the medium term – by year 2055 – the difference in losses between using the policies and not using them is greater. Residential and commercial property losses as a result of coastal erosion could still cumulatively total 12, with cumulative losses of about 19 houses by the year 2105. This compares to the no active intervention baseline, under which cumulative house losses could be up to 87 by 2055, and over 325 by 2105 if the protection measures were not used. The preferred policies could deliver coastal erosion protection to over 300 ‘at risk’ residential and commercial properties over the next 100 years. These figures relate to losses through coastal erosion only. As significant parts of the SMP frontage are very low lying, overtopping, overflowing or breaching of defences, even where flood defences are maintained, could lead to wide-spread flooding, with over 26,900 residential properties and over 3,700 businesses at risk from flood damage.</p> <p>Along frontages where some properties will be lost due to coastal erosion in the medium to long term, the preferred policy includes provision for management of the retreat at some of these locations. This could allow for relocation or mitigation measures to be implemented should there be the mechanisms to do so. The dune management at Brean could in particular require relocation of some properties.</p>	<p>Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities.</p> <p>The South West Regional Spatial Strategy and Local development documents must ensure that the requirements of PPS25 are fully implemented to ensure no future development in areas of coastal flooding or erosion.</p>
<p>To avoid loss due to erosion of and manage risk of flooding to key community, recreational and amenity facilities. (Population and human health)</p>	<p>Under the preferred long-term policies, the key centres of tourism and recreation (e.g.. Westward Ho!, Minehead, Burnham on Sea, Brean and Berrow) will continue to be protected. While the preferred policy for many of the areas along the shoreline is to hold the line in the long term, there may still be a detrimental impact on tourism through loss of beaches at places such as Westward Ho!, Minehead, Burnham-on-Sea and Weston-super-Mare, where it will become increasingly technically difficult to retain beaches as sea levels rise causing erosion of beach against a sea defence causing them to narrow. Tourism and recreation is an important economic sector for this area with key centres located along the SMP frontage including Clovelly, Westward Ho!, Braunton, Croyde, Woolacombe, Ilfracombe, Combe Martin, Lynmouth, Minehead, Dunster, Blue Anchor, Doniford, Burnham-on-Sea, Berrow, Brean and Weston-super-Mare. Along some of these frontages there will be losses of a number of properties as a result of policies to undertake realignment or no active intervention. Where it is possible to provide defence sustainably, in the long-term, through beach re-nourishment, this will be of increasing value to tourism and recreation within the region as more beaches become lost as sea levels rise. Although in the long term there are losses of beach expected from rising sea levels and coastal squeeze, there will also be potential access issues, with existing accesses to the beach often being lost or becoming redundant. Also some of the golf courses located along the coast are at risk of flooding or erosion (e.g. Northam Burrows, West Somerset and Uphill) whereas the Burnham and Berrow Golf course will be protected due to its more sustainable location.</p> <p>Where footpaths (South West, West Somerset Way, Tarka Trail and West Mendip Way) are affected they will be relocated inland on higher ground.</p>	<p>Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities.</p> <p>The South West Regional Spatial Strategy and Local development documents must ensure that the requirements of PPS25 are fully implemented to ensure no future development in areas of coastal flooding or erosion.</p>
<p>To avoid loss due to erosion of and manage risk of flooding to industrial, commercial and economic assets and activities (Population, material assets)</p>	<p>The proposed SMP policies are generally likely to be beneficial to industrial, commercial and economic assets and/or activities, by protecting areas of significant development from flooding or erosion (e.g. Minehead). Protection is predominantly focussed upon larger towns and villages, where the highest level of benefit is achieved. However, some isolated industrial or commercial facilities may be affected by flooding or erosion, as policies leading to a more ‘natural’ shoreline in the long-term have been identified where feasible.</p>	<p>Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities.</p> <p>The South West Regional Spatial Strategy and Local development documents must ensure that the requirements of PPS25 are fully implemented to ensure no future development in areas of coastal flooding or erosion.</p>
<p>To minimise the impact of policies on marine operations and activities (Material assets)</p>	<p>Where there is HTL and maintenance of defences there are no effects on marine operations such as fishing (e.g. Clovelly). However, in areas moving towards a more sustainable management of the coast access to the sea may become hindered for fishing operations through dilapidated defences and poor access (e.g. Bucks Mill). The RAF base at Chivenor where emergency rescues are also run from may be at risk of flooding.</p>	<p>Consider implications and interactions with the Marine and Coastal Access Act.</p>
<p>To ensure critical road and rail linkages are maintained (Material assets)</p>	<p>For much of the coastline the preferred policy is to maintain existing defences where economically viable in the long term. This will help to minimise loss of critical infrastructure along the developed parts of the coastline as far as possible (e.g. M5, A39, A38 and A370 and main railway line). However, for some sections of the coast, a change in management policy has been identified for the longer term where a hold the line policy is no longer acceptable on the grounds of economics, technical sustainability or the environment (e.g. some minor roads).</p>	<p>The South West Regional Spatial Strategy and other development plans will influence the nature and location of new infrastructure. The SMP should help to influence and ensure that new infrastructure is located appropriately and not subject to coastal flooding or erosion.</p>
<p>To ensure critical services</p>	<p>For much of the North Devon and Somerset coastline the preferred policy is to maintain existing defences where economically viable in the long term. This will help to</p>	<p>The South West Regional Spatial Strategy and other development</p>

SEA Environmental Objective	Cumulative effects across the whole plan area (sum of Policy Unit impacts)	Interaction of SMP with relevant Plans and Programmes
<p>remain operational <i>(Material assets)</i></p>	<p>minimise loss of critical services along the developed parts of the coastline as far as possible. However, for some sections of the coast, a change in management policy has been identified for the longer term where a hold the line policy is no longer acceptable on the grounds of economics, technical sustainability or the environment, and in these areas, some services may be affected e.g. national grid pylons in areas of managed realignment, or substations at risk of flooding.</p>	<p>plans will influence the nature and location of new infrastructure. The SMP should help to influence and ensure that new services are located appropriately and not subject to coastal flooding or erosion.</p>
<p>To allow natural processes and maintain visibility of geological exposures throughout geological Sites of Special Scientific Interest (SSSIs). <i>(Geology and Soils)</i></p>	<p>Much of the SMP coast is characterised by a variety of cliff types, which are nationally and internationally important for their geology and geomorphology. The most significant threat to the sites of geological interest is the creation of artificial structures that would affect the natural processes of erosion or obscure the exposed geology. The proposed plan therefore seeks to balance the protection of these natural features with the maintenance and protection of property and material assets wherever possible. The preferred policies of no active intervention or managed realignment have been recommended in areas where there are limited human assets or along areas of undeveloped coastline to ensure the preservation of the geological interests. In general, the SMP is not recommending the construction of new defences to maintain economic assets in areas where none are currently present.</p>	
<p>To maintain the integrity of internationally designated sites and the favourable condition of their interest features. <i>(Flora, fauna and biodiversity)</i></p>	<p>Parts of the shoreline management plan (SMP) frontage, are designated under the EC Habitats Directive (92/43/EEC) and European Union Birds Directive (79/409/EEC) and as such if there is a change in extent or conservation value as a result of SMP policy, then a Habitats Regulations Assessment has been completed. This is particularly relevant in a long section of the SMP that borders the Severn Estuary Special Area of Conservation (SAC), Special Protected Area (SPA) and Ramsar sites, as well as Lundy SAC and Braunton Burrows SAC. There are potential losses associated with the implementation of SMP policy, this is through the loss of intertidal habitat due to coastal squeeze against control structures and where this is an issue it is likely to be exacerbated through sea level rise. However, natural processes of coastal erosion and flooding are also responsible for the loss of habitat. Conversely, coastal processes can also be of benefit to the natural environment. As the coast is allowed to naturally rollback, supported by SMP policies, there is the creation of intertidal habitat which is of benefit to birds and benthic communities, this will be achieved through either no active intervention or managed realignment and potential areas for this are actively sought to offset intertidal losses due to coastal squeeze.</p> <p>Careful management of the shoreline on Lundy Island and between Hartland Point and Anchor Head is necessary to sustain the designated habitats already in place, while managing for the impact of sea level rise. The conflicting objectives of a more dynamically functioning coastline coupled with conserving existing habitat will rely on the adoption of the appropriate management policy. By making step changes based on analysis of monitoring data, changes to management policy can be made slowly, with limited impact on the habitat.</p>	<p>Several Catchment Flood Management Plans (e.g.. The North Devon West Somerset, The Parrett and North and Mid Somerset) and the Severn Estuary Management Plans has the potential to affect the designated nature conservation sites. Policies and actions in these documents will seek to ensure that there are no adverse effects.</p> <p>Coastal squeeze as a result of climate change and rising sea levels will require the provision of compensatory habitat (both intertidal and freshwater/terrestrial) in some areas.</p>
<p>To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated conservation sites. <i>(Flora, fauna and biodiversity; Geology and Soils)</i></p>	<p>Due to a preferred policy of NAI where there are few assets to defend the majority of nationally designated SSSIs will continue to evolve in accordance with natural processes, this includes: Marsland to Clovelly, Hobby to Peppercombe, Braunton Burrows, Saunton to Baggy Point, Morte Point, Barricane Beach, Mill Rock, Brean Down. However some nationally designated sites features may be affected or lost due to sea level rise and coastal squeeze against either fixed defences including the following SSSIs: Lundy Island, Taw Torridge and Bridgwater Bay. However, in many areas a preferred long-term policy of no active intervention or managed realignment will continue to enhance intertidal habitat features of these SSSIs as well as benefiting Porlock Ridge and Saltmarsh SSSI, Taw Torridge SSSI, Bridgwater Bay SSSI and Uphill SSSI. In areas of Managed Realignment or due to natural processes the following nationally designated sites freshwater features are at risk of saline inundation including the: Greenaways and Freshways Marshes SSSI and Saltpill. For these sites freshwater compensatory habitat should be sought. West Exmoor Coast and Woods and Dunkery and Horner Woods NNR should not be adversely affected by policies.</p> <p>Careful management of the shoreline between Hartland Point and Anchor Head is necessary to sustain the designated habitats already in place, while managing for the impact of sea level rise. The conflicting objectives of a more dynamically functioning coastline coupled with conserving existing habitat will rely on the adoption of the appropriate management policy. By making step changes based on analysis of monitoring data, changes to management policy can be made slowly, with limited impact on the habitat.</p>	<p>Several Catchment Flood Management Plans (e.g.. The North Devon West Somerset, The Parrett and North and Mid Somerset) and the Severn Estuary Management Plans has the potential to affect the designated nature conservation sites. Policies and actions in these documents will seek to ensure that there are no adverse effects.</p> <p>National BAP targets will be met through a variety of mechanisms, and during the implementation of the SMP, we will work with the partners of the other plans to ensure that these targets are met.</p>
<p>To avoid adverse impacts on, conserve and where practical enhance the designated interest of locally designated conservation sites. <i>(Flora, fauna and biodiversity; Geology and Soils)</i></p>	<p>Along parts of the SMP frontage, habitats have been designated under local legislation for their conservation interests. In some of these areas, the preferred plan will result in the loss of some designated freshwater habitat which will require compensation (e.g.. LNR at Fremington, Wall Common, Wall Common West and Hillsborough) to intertidal habitat, it may result in habitat creation (e.g.. Uphill LNR).</p> <p>Careful management of the shoreline between Hartland Point and Anchor Head is necessary to sustain the designated habitats already in place, while managing for the impact of sea level rise. The conflicting objectives of a more dynamically functioning coastline coupled with conserving existing habitat will rely on the adoption of the appropriate management policy. By making step changes based on analysis of monitoring data, changes to management policy can be made slowly, with limited impact on the habitat.</p>	<p>Several Catchment Flood Management Plans (e.g.. The North Devon West Somerset, The Parrett and North and Mid Somerset) and the Severn Estuary Management Plans have the potential to affect the designated nature conservation sites. Policies and actions in these documents will seek to ensure that there are no adverse effects.</p>
<p>To prevent pollution from contaminated sources. <i>(Geology and soils, water)</i></p>	<p>In most areas along the coastal frontage, the preferred SMP policy provides protection from flooding or erosion to the majority of potentially polluting features such as landfill sites (e.g.. Northam Burrows).</p> <p>However, there are a few areas where flooding or erosion of landfill sites may be experienced in the short, medium and long-term and will therefore require further consideration and study at project level if a policy of NAI is adopted (e.g.. Old Yelland Power Station and Bossington).</p>	<p>Local Development Document policies provide protection for the water environment. Implementation of the SMP will try to ensure full adherence to these policies (wherever possible) through coastal management activities.</p> <p>The South West Regional Spatial Strategy and Local development documents must ensure that the requirements of PPS25 are fully</p>

SEA Environmental Objective	Cumulative effects across the whole plan area (sum of Policy Unit impacts)	Interaction of SMP with relevant Plans and Programmes
<p><i>To avoid adverse impacts on scheduled and other nationally, regionally and locally important historic environment sites.</i> (Historic Environment)</p>	<p>There are a wide range of historic environment sites along the coast and many more of these will be protected through the preferred policies than would survive under a no active intervention policy. Many features are retained and protected through the preferred policies. However, along some stretches of coastline, there may be possible damage to or loss of historic environmental features in the longer term due to flooding and/or erosion including:</p> <ul style="list-style-type: none"> • Conservation Areas (e.g. Bucks Mill, Woolacombe, Bossington and Minehead) • Scheduled Monuments including: Marison Castle and 3 Batterys on Lundy Island in the long term, and Daw Castle (at risk of erosion); • Small areas of Registered Parks and Gardens e.g. e.g.. Tapeley Park and St Audries Park; • Grades I and II Listed Buildings; and • Historic Landscapes in areas of managed realignment such as Steart and Uphill. <p>It should be noted that most of the Conservation Areas, Listed Buildings and Scheduled Monuments within the North Devon and Somerset SMP area are located within the towns and cities along the coast, the majority of which would be protected, under the preferred policies. Conservation Areas to be protected include: Clovelly, Appledore, Northam, Instow, Bideford, East-the –Water, Barnstaple, Tawstock, Braunton, Ilfracombe, Lynton, Lynmouth, Porlock, Bridgwater, Burnham-on-Sea, Highbridge, Uphill and Weston Super Mare. However, some Listed Buildings (e.g. at Braunton Marsh and Porlock) and Scheduled Monuments are located in areas where changes in long-term policy are proposed, and in these areas there is a risk of these being lost or damaged as a result of erosion or flooding in the medium to long term. There are also numerous unscheduled but recorded sites on the Historic Environment Register to be affected as well as protected by proposals. There may also be a loss of historic landscapes such as those created through reclaimed land (e.g. Steart and Uphill) which provide sustainable locations for managed realignment and are at risk of change.</p>	<p>implemented to ensure no pollution to coastal/estuarine waters.</p> <p>Local Development Document policies provide protection for the historic environment. Implementation of the SMP will try to ensure full adherence to these policies (wherever possible) through coastal management activities.</p>
<p>To avoid conflict with AONB Management Plan, Exmoor National Park, Heritage Coast and Coastal Preservation Area Objectives. (Landscape)</p>	<p>The preferred long-term policies in this SMP are intended to sustain the current dense urban areas through proactive management of the existing beaches and defences, whilst recognising that new linear and possibly shoreline control defences may be needed in the longer term; although in general the Plan is not to construct new defences in currently undefended areas so much of the coastline will remain as today. However, opportunities for forming a free functioning natural coastline in some areas have been taken, to create a more natural coastal landscape and reducing piecemeal man-made structures on the beach. This is more beneficial to the landscape than a policy of defending the whole coastline, which would involve construction of new, more substantial defences, which in some places would also be unlikely to be technically sustainable or economically viable. However, it is recognised that loss of some coastal properties, may affect the quality of the landscape should they be of special character. In addition, where a no active intervention policy is recommended, there is the potential for unsightly defences as they deteriorate in the long-term. Furthermore as existing defences are maintained involving higher and possibly more defences a localised landscape impact will occur.</p>	<p>The SMP policies will be developed and implemented in accordance with the policies of the AONB Management Plan, Exmoor National Park Plan and policies of the Heritage Coast plan.</p>
<p>To avoid loss due to erosion of and/or manage risk of flooding to agricultural land. (Population, soils)</p>	<p>Agriculture and grazing also represents a share of the local economy and along the coast there are various grades of agricultural land. This land along much of the North Devon and Somerset coast is in the undeveloped stretches between the towns and within the estuaries. There is insufficient economic justification for maintaining or constructing defences, which would also be technically and environmentally inappropriate in many places. Under the preferred policies there could be loss or damage to approximately 14,800 hectares of agricultural land (over half of which is Grade 1 to 3 land) which will remain at risk of flooding, even where low-level defences are present, by year 2105. Some of this agricultural land will be actively managed under Managed Realignment where improved agricultural land will become intertidal, compensating for areas lost to coastal squeeze. It has been highlighted through consultation with the National Farmer Union, that the increasing future food demands will place increasing pressure existing farmland. Where compensatory areas are not available, the lost of agricultural land will have an associated effect on farming production levels county and nationwide. Currently, there is no national guidance on the relative priority of agricultural land when making decisions about the management of flood and erosion risks.</p>	<p>Local Development Plans influence changes in Grades 1 to 3a agricultural land; the majority of agricultural land that would be affected in the study area would be Grade 3 – 5 agricultural land.</p>
<p><i>To achieve compliance with Water Framework Directive objectives.</i> (Water)</p>	<p>The Water Framework Directive (WFD) Assessment (Appendix K) has recorded three of the Policy Scenario Areas in which there is the potential for SMP policy not to meet the WFD objectives. These are Hinkley Point which has the potential to not to meet WFD Objective 2 (no change that will cause failure to meet surface water good ecological status or potential or result in a deterioration of surface water ecological status or potential), and Hinkley Point to Stolford which has the potential to not to meet WFD objective 2 and 3 (Objective 3; No change which will permanently prevent or compromise the environmental objective being met in other water bodies).</p>	

1.8.1.2 Habitat Regulations Assessment

As many of the proposed SMP policies would be implemented within or adjacent to international conservation sites, a Habitats Regulations Assessment (**Appendix J ‘Habitats Regulations Assessment’**) has been undertaken in accordance with the requirements of the EC Habitats Directive (92/43/EEC) and European Union Birds Directive (79/409/EEC) and their implementation in the UK under the Conservation (Natural Habitats &c.) Regulations 1994, under Regulation 48(1) ("Habitats Regulations").

The SMP has the potential to adversely affect the integrity of the Severn Estuary SAC, SPA and Ramsar site. The predicted adverse effects will be as a result of a ‘hold the line’ policy within the Severn Estuary SAC, SPA and Ramsar site, where sea level rise against coastal defences results in ‘coastal squeeze,’ a progressive loss of intertidal habitat and their associated species.

Where a ‘no active intervention’ policy applies, this should enable natural processes, including the roll back of habitats where sea level rise results in the loss of intertidal areas. However, this may not be the case where habitats are constrained by natural features, such as hard cliffs. In this case, there may be a net loss of intertidal habitats, but it is not considered that this would be the result of SMP policy.

1.8.2 Difficulties and Uncertainties

The main sources of uncertainty at this level of appraisal relate to: -

- It is assumed that the baseline information used in the SEA is complete, up to date, reliable and unbiased.
- Unknown archaeology – there is potential for buried archaeological features that have not been identified at this high level. Further archaeological desk study (and potential field evaluation) will be required at strategy or scheme level.
- Areas of potential contamination, ground stability, unrecorded landfills and buried ordnance are unknown at this stage. Further desk study and investigation will be required at strategy and scheme level.

Where data gaps or lack of understanding exist, then ‘uncertainty’ is introduced into the SEA and SMP implementation and into the prediction of environmental impacts/outcomes. Where this uncertainty is significant, the implications for the predictions have been identified as well as the data collection/analysis that might be needed to address it.

Where the preferred plan for any Policy Unit has specific monitoring or detailed study requirements, to help clarify uncertainties, such as future morphological evolution of the estuary and the extent of Managed Realignment and habitat creation, this is identified in **Section 6 – Action Plan** in the **main SMP document**.

There is therefore some risk that closer inspection through the development of strategies and schemes may identify constraints that may change approaches to flood management at particular localities.

In addition, in carrying out the SEA, solutions that are environmentally justifiable have been selected based on existing data sources and baseline data. The assessment of cumulative impacts is therefore limited by changing environmental characteristics and future development.

1.8.3 Monitoring

The key principles of implementation and monitoring are to ensure that the mitigation measures are implemented and effective and to monitor all the significant environmental effects identified during the assessment.

The SMP has been circulated to all stakeholders for consultation and comment. The plan has been modified in light of comments received from consultees and these changes have been incorporated prior to the plans formal adoption. Once the plan is implemented, any potentially significant effects will be monitored and reported in accordance with the review cycle of the plan.

Where the preferred policies for any Policy Unit have specific monitoring/study requirements to clarify uncertainties, this is identified in the relevant 'Policy Unit Statement' (**Section 5**). Detailed monitoring could be undertaken within the existing South-West Strategic Regional Coastal Monitoring Programmes or undertaken as part of coastal defence strategy studies. The latter will also define mitigation requirements.

At this level of plan, the mitigation and enhancement measures are integral to the policy appraisal. Where we have the potential to enhance the environment we have included this potential within the appraisal objectives. Mitigation measures at this level are generally included as part of the appraisal of policy options, so that a less detrimental alternative option is tended towards. We therefore can not identify any further specific mitigation measures at this policy level. At a lower level in the planning hierarchy, when investigations are progressed to develop the details of how to implement flood risk and erosion management measures, an appropriate level of environmental assessment will be undertaken, and will identify more relevant mitigation measures to the impacts arising.

Some mitigation measures have been incorporated into **Annex I.1** of this appendix.

1.8.4 What happens now?

There are a number of steps required to ensure that the recommendations of the SEA and SMP are taken forward in the short and medium-term, both in land use planning and coastal defence management. Actions to facilitate the implementation of the longer-term policies also need to be initiated as appropriate.

Generally, the policy recommendations in the SMP will be implemented through the development of coastal flood risk management strategies, which cover smaller but strategically linked sections of the coast. Subsequently, implementation of coastal flood and erosion risk management schemes will deliver works on the ground. Environmental Statements and Appropriate Assessments (if required) will be prepared at scheme level, and these will be subject to public consultation.

The plan, which will require on-going review, will be informed by further understanding of changes in the environment, policy/legislation changes and environmental assessment. The process of implementation will be underpinned by monitoring of the shoreline to identify ongoing behaviour, together with targeted study and investigation where there are specific uncertainties. Monitoring of environmental receptors such as designated habitats, areas of potential contamination etc will inform environmental assessment at the strategy and scheme level.

ANNEX I.I – ENVIRONMENTAL ASSESSMENT OF PREFERRED POLICY OPTION

The tables below describe the environmental effects of the preferred SMP policy scenarios along with appropriate mitigation measures that could be implemented to ameliorate any adverse impacts.

STRATEGIC ENVIRONMENTAL ASSESSMENT OF PREFERRED POLICY OPTION: Sub-cell 7c, 7d and 7e (part)

The tables below describe the environmental effects of the preferred SMP policy scenarios along with appropriate mitigation measures that could be implemented to ameliorate any adverse impacts.

Notes on application:

Where there is a change in management practice from the 'with present management scenario' the preferred policy scenario is highlighted in **blue and bold**.

The tables below describe the environmental effects of the preferred SMP policy scenarios on the various SEA themes. A significance has been assigned to each effect in for the short (to 2025), medium (to 2055), and long term (to 2105). A significance has then been assigned for the overall effect of the SMP policy on the SEA theme e.g. biodiversity for the three time periods. The row highlighted in blue below then identifies appropriate mitigation measures to help ameliorate any adverse impacts.

Where there is a change in management practice from the ‘with present management scenario’ the preferred policy scenario is highlighted in **blue and bold**.

Prediction of Significant Effects

Table 1 Classification of significance rating

Epoch		Significance rating			
ST	Short-term	X	Minor Adverse	√	Minor Beneficial
MT	Medium-term	XX	Moderate Adverse	√√	Moderate Beneficial
LT	Long-term	XXX	Major Adverse	√√√	Major Beneficial
				O	Neutral Effect

Beneficial Effects - are those that enhance the quality of the SEA receptor and promote achievement of the SEA Objectives.

Adverse Effects - are those that reduce the quality of the SEA receptor and conflict with the SEA Objectives.

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
		POLICY SCENARIO AREA: LUNDY ISLAND										
7c01	Landing Beach	A	HTL	HTL	HTL	<p>Lundy SAC- sandbanks slightly covered by water all the time: there is potential in the medium to long term that HTL changes movement of sediment affecting the distribution of sandbanks and covering of water.</p> <p>ST ○ MT XX LT XX</p> <p>Lundy SAC - reefs: There is a low risk that in the medium to long term reefs are smothered through changes in sediment distribution due to HTL.</p> <p>ST ○ MT XX LT XX</p> <p>Lundy SAC - Submerged or partially submerged sea caves: Due to natural processes there is a risk that sea level rise affects the extent and duration of inundation.</p>	<p>Reduction in spatial extent of the island's pocket beaches due to erosion in the medium to long term.</p> <p>ST ○ MT X LT XX</p>	<p>No known impacts on water.</p> <p>ST ○ MT ○ LT ○</p>	<p>Localised minor impact on Lundy Heritage Site & Coastal Preservation Area due to maintaining existing defences (HTL).</p> <p>ST X MT X LT XX</p>	<p>No predicted impacts in the short –medium term on protected wreck sites, Scheduled Monuments or Listed Buildings.</p> <p>In the long term there is potential loss of 5 Scheduled Monuments comprising of Marison Castle in lee of Landing Beach, 2 remains of Batterys and Brazen Ward in the North East of the island and a Battery in the central western area.</p> <p>ST ○ MT ○ LT XX</p>	<p>Long-term access to Lundy Island will be protected.</p> <p>Long term protection of access road between Landing beach and Lundy village from erosion.</p> <p>No loss to Grade 3 or above agricultural land and minimal loss to low grade agricultural land.</p> <p>ST ○ MT ✓✓ LT ✓✓✓</p>	<p>Long-term access to Lundy Island will be protected continuing quality of life for Islanders and visitors This will preserve the island's economy and community.</p> <p>ST ○ MT ✓✓ LT ✓✓✓</p> <p>No impact to properties or the lighthouse on Lundy Island maintaining navigation for marine operations.</p> <p>ST ○ MT ✓✓ LT ✓✓✓</p>

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
7c02	Lundy Island (except Landing Beach)	A	NAI	NAI	NAI	<p>Grey seal: availability of caves for pupping seals may be affected, with knock on effects to the population however this will not be due to policy.</p> <p>ST ○ MT X LT X</p> <p>UNESCO Biosphere Reserve – maintaining access to the Island, provides continued public education and awareness of marine nature conservation.</p> <p>ST ✓ MT ✓✓ LT ✓✓✓</p> <p>Lundy SSSI – Minor localised permanent land take from the SSSI for the footprint of the defences.</p> <p>ST XX MT XX LT XX</p> <p>Marine Nature Reserve – the change in sediment processes may affect features of the reserve.</p> <p>ST ○ MT X LT X</p> <p>Local designations (Lundy Woodland Trust Site and Lundy Nature Conservation Zone) are unaffected.</p>						
Summary Assessment for LUNDY ISLAND Policy Scenario Area					<p>ST ○ MT XX LT XX</p>	<p>ST ○ MT X LT XX</p>	<p>ST ○ MT ○ LT ○</p>	<p>ST X MT X LT XX</p>	<p>ST ○ MT ○ LT XX</p>	<p>ST ○ MT ✓✓ LT ✓✓✓</p>	<p>ST ○ MT ✓✓ LT ✓✓✓</p>	

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
		Mitigation Measures/Environmental Opportunities				The Appropriate Assessment has determined 'No adverse effects on the interest feature of European sites as a result of these SMP policies. No mitigation required. Any land take for defences from Lundy SSI will have to be compensated at a scheme level.	No mitigation required.	No mitigation required.	Opportunities will be identified in the AONB/Heritage Coast Management Plan to improve landscape character. Any adverse impact on the landscape will have to be addressed during design at a scheme level.	The likely impacts of the preferred SMP policy option on the Historic Environment will be investigated further at strategy or scheme level. Where avoidance of damage to a Schedule Monument is not possible and where it cannot be preserved in situ mitigation should take to form of excavation and recording prior to loss.	No mitigation required.	No mitigation required.
POLICY SCENARIO AREA: HARTLAND POINT TO WESTWARD HO!												
7c03	Hartland Point to Clovelly	A	NAI	NAI	NAI	Continued natural erosion of cliffs without constraints except at Clovelly. Potential small loss of heath and old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> due to this erosion. These habitats are designated under the Tintagel-Marsland-Clovelly Coast SAC therefore this policy is considered further within the Habitats Regulations Assessment (Appendix J).	Continuation of natural processes is key to the integrity of Marsland to Clovelly Coast Geological SSSI, Hobby to Peppercombe Geological SSSI and Mermaids Pool to Rowdens Gut Geological SSSI along this stretch of coast. The NAI will continue to maintain the geological features and integrity of the sites.	No known impacts on water. ST ○ MT ○ LT ○	Continuation of natural processes maintaining the character of the North Devon AONB, Hartland Heritage Coast and Coastal Preservation Area. ST ✓✓ MT ✓✓ LT ✓✓	Potential partial loss of 2 Scheduled Monuments Gallantry Bower in the medium term and Windbury Head in the long term due to erosion. ST ○ MT XX LT XXX The Conservation Area at Clovelly is protected from Flooding and erosion. ST ✓✓ MT ✓✓✓ LT ✓✓✓	Risk of occasional landslips removing up to 50m per event along parts of this section of coast resulting in sections of the South West Coastal Path requiring relocation inland and minimal loss of medium and low grade agricultural land. ST XX MT XX LT XXX	Protection to properties and harbour infrastructure at Clovelly. This will also ensure the fishing fleet remains operational and the tourist industry remains unaffected. ST ✓✓ MT ✓✓✓ LT ✓✓✓ Deteriorating defence assets in medium and long term at Buck's Mill will reduce access to the sea and limiting fishing opportunities. Potential loss of residential and commercial properties due to coastal erosion
7c04	Clovelly	A	HTL	HTL	HTL	Continued natural erosion of cliffs with potential			Potential loss of the harbour wall, lime kilns and coastal properties at Bucks Mill which are considered to be integral to the AONB ST X			

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health
7c05	Clovelly to Westward Ho! (Seafield House)	A	NAI	NAI	NAI	small loss of grassland, heathland and woodland/scrub, oak <i>Quercus petraea</i> woodland and lichens affecting designated features of the Marsland to Clovelly SSSI and Hobby to Peppercombe SSSI but this is due to natural processes of coastal erosion. ST ✓ MT ✓ LT ✓			MT XX LT XX Localised impact of defences at Clovelly. ST X MT X LT X	at risk from erosion and flooding unless defences are provided. ST X MT XX LT XXX		and fluvial flooding. ST O MT XX LT XXX
Summary Assessment for HARTLAND POINT TO WESTWARD HO! Policy Scenario Area						ST ✓ MT ✓ LT ✓	ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	ST O MT O LT O	ST ✓ MT ✓ LT ✓	ST O MT XX LT XXX	ST XX MT XX LT XXX	ST O MT XX (✓✓✓ For Clovelly) LT XXX (✓✓✓ For Clovelly)
Mitigation Measures/Environmental Opportunities						The Appropriate Assessment has determined 'No adverse effects on the interest feature of European sites as a result of these SMP policies. No mitigation required.	No mitigation required.	No mitigation required.	The Competent authority or private funder to consider the use of locally sourced building materials and sensitively landscape new structures. Opportunities should be identified to improve landscape character in AONB/Heritage Coast Management Plan	The likely impacts of the preferred SMP policy option on the Historic Environment will be investigated further at strategy or scheme level. Where avoidance of damage to a Schedule Monument is not possible and where it cannot be preserved in situ mitigation may take to form of excavation and recording.	Mitigation for loss of sections of the South West Coastal Path will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land.	There may be no provision for compensating or mitigating the loss of private properties.
POLICY SCENARIO AREA: WESTWARD HO! TO SAUNTON DOWN												
7c06	Westward Ho!	A,B & C	HTL	HTL	HTL	Braunton Burrows SAC, SSSI and UNESCO International Biosphere Reserve Area site may be impacted by defence decisions at Northam Burrows. Any future	Small changes in coastal geomorphological features in the short term at Northam Burrows SSSI due to natural processes. A reduction in its spatial	Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the	Minor changes in landscape within North Devon AONB due to natural processes of increased erosion and flooding.	Continued protection of Appledore, Northam Instow, Bideford, East-the-Water Fremington, Bickington and,	Continued protection of community, recreational and amenity facilities at Westward Ho! and Appledore. ST ✓✓	Continued protection of properties at Westward Ho!, Appledore and Northam Burrows. ST ✓✓ MT ✓✓✓
7c07	Northam Burrows	A	MR	MR	MR							
7c08	Skern Salt marsh to Appledore (west)	C	HTL	HTL	HTL							

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			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health						
7c09	Appledore	A,B & C	HTL	HTL	HTL	management decision is dependent of more detailed study in the short term to reduce the uncertainty. The policy is considered further within the Habitats Regulations Assessment (Appendix J)	extent is predicted in the medium to long term. Any breach in the pebble ridge would be expected to reseal by littoral processes.	coastal waters or compromise the achievement of WFD water quality targets.	ST ○ MT ○ LT ○ Larger defences or more structures may be required to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character within AONB Heritage Coast and Coastal Preservation Area.	Barnstaple, Tawstock and Braunton Conservation Areas from flooding.	MT ✓✓✓ LT ✓✓✓ Continued protection of the promenade and slipway from erosion.	LT ✓✓✓						
7c10	Appledore to Cleave Moorings, Northam	B	NAI	NAI	NAI								ST ○	MT ○	LT ○	ST ✓✓	MT ✓✓✓	LT ✓✓✓
7c11	Cleave Moorings, Northam and Bideford	A & C	HTL	HTL	HTL								ST ○	MT ○	LT ○	ST ✓✓	MT ✓✓✓	LT ✓✓✓
7c12	Upper Torridge Estuary (east and west banks between Bideford and Weare Gifford)	Variation	NAI MR & HTL	NAI MR & HTL	NAI MR & HTL								ST ○	MT ○	LT ○	ST X	MT X	LT X
7c13	East-the-Water to Torridge Bridge (A39)	A & C	HTL	HTL	HTL								ST X	MT XX	LT XXX	ST X	MT X	LT XX
7c14	Torridge Bridge (A39) to Instow	A & C	HTL	HTL	HTL								ST X	MT XX	LT XXX	ST X	MT X	LT XX
7c15	Instow	A, B & C	HTL	HTL	HTL								ST ○	MT ○	LT ○	ST X	MT X	LT XX
7c16	Instow Dunes	Variation	MR	MR	MR								ST ○	MT ○	LT ○	ST X	MT X	LT XX
7c17	Instow to Yelland	Variation	HTL	MR	HTL								ST ○	MT ○	LT ○	ST X	MT X	LT XX
7c18	Home Farm Marsh (Yelland to Fremington)	Variation	HTL	MR	HTL								ST ✓✓✓	MT ✓✓✓	LT ✓✓✓	ST X	MT X	LT XX
7c19	Fremington to Penhill Point	A, B & C	HTL	HTL	HTL								ST ✓✓✓	MT ✓✓✓	LT ✓✓✓	ST X	MT X	LT XX
7c20	Fremington to Penhill Point	A, B & C	NAI	NAI	NAI								ST ✓✓	MT ✓✓✓	LT ✓✓✓	ST X	MT X	LT XX
7c21	Penhill Point to Bickington	A & C	HTL	MR	HTL								ST ✓✓	MT ✓✓✓	LT ✓✓✓	ST X	MT X	LT XX
7c22	Bickington to A39	A & C	HTL	HTL	HTL	ST ✓✓	MT ✓✓✓	LT ✓✓✓	ST X	MT X	LT XX							
7c23	Upper Taw Estuary (east and west banks between A39 to tidal limit near Bishops Tawton)	B & C	NAI MR & HTL	NAI MR & HTL	NAI MR & HTL	ST ✓✓	MT ✓✓✓	LT ✓✓✓	ST ○	MT X	LT XXX							
7c24	A39 to West Ashford (Barnstaple)	A, B & C	HTL	HTL	HTL	ST ✓✓	MT ✓✓✓	LT ✓✓✓	ST ○	MT X	LT XX							

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			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health					
7c25	West Ashford to Braunton (east bank of River Caen)	Variation	HTL	MR	HTL	<p>result in a change in freshwater habitats. But this would be due to natural processes.</p> <p>Areas of Greenways and Freshways Marshes SSSI, Fremington Local Nature Reserve, County Wildlife Sites located at Leat (Fremington), Saltpill duckpond and Horsey Island are at risk from flooding. Where there are freshwater habitats the increased exposure to saline conditions may result in a change in habitat composition. But this would be due to natural processes and like for like compensatory habitat will be identified to replace SSSI and UK BAP habitat lost.</p>	<p>MT XX LT XX Managed realignment and no active intervention will allow the continuation of natural processes along the Taw Estuary which will maintain the geological features.</p>					<p>shipyard and harbour infrastructure at Appledore.</p>	<p>MT ✓✓✓ LT ✓✓✓ The development opportunity planned for Barnstaple is potentially at risk from flooding depending on its location.</p>				
7c26	Braunton to Horsey Island (west bank of River Caen)	Variation	HTL	MR	HTL									ST ○	MT ○	LT ○	
7c27	Horsey Island	Variation	HTL	MR	HTL									ST ○	MT ○	LT ○	
7c28	Horsey Island to Crow Point	Variation	HTL	MR	HTL									ST ○	MT ○	LT ○	
7c29	Crow Point & Crow Neck	A	MR	MR	MR									ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	ST ○	MT X LT X	ST ○ MT ○ LT ○
7c30	Braunton Burrows	A, B & C	NAI	NAI	NAI									ST ○ MT ○ LT ○	ST ○ MT X LT X	ST ○ MT X LT XX	ST ○ MT X LT XX
7c31	Saunton Down	A, B & C	NAI	NAI	NAI	ST ○ MT ○ LT ○	ST ○ MT X LT XX	ST ○ MT X LT XX	ST ○ MT X LT XX								
Summary Assessment for WESTWARD HO! TO SAUNTON DOWN Policy Scenario Area						ST ✓✓ MT ✓✓✓ LT ✓✓✓	ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	ST ○ MT ○ LT ○	ST X MT XX LT XX	ST ✓✓ MT ✓✓✓ LT ✓✓✓	ST ✓✓ MT ✓✓✓ LT ✓✓✓	ST ✓✓ MT ✓✓✓ LT ✓✓✓					
Mitigation Measures/Environmental Opportunities						The Appropriate Assessment has determined that 'A policy of 'managed realignment' (in the medium term) may allow natural processes to establish where they have	No mitigation identified.	No mitigation required.	The Competent authority or private funder to consider the use of locally sourced building materials and sensitively landscape	No mitigation identified.	Relocation of affected assets will be considered as part of the Estuary Strategy. Mitigation for loss of sections of the South	There may be no provision for compensating or mitigating the loss of private properties					

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
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POLICY SCENARIO AREA: SAUNTON DOWN TO BAGGY POINT (CROYDE BAY)												
7c32	Croyde Sands	A, B & C	NAI	NAI	NAI	There may be a change in the features of Saunton to Baggy Point Coast SSSI with limited impact on coastal habitats such as cliff vegetation and sand dunes (Croyde) but this will be due to natural processes. ST ○ MT ○ LT ○	Continuation of natural processes is key to the integrity of Saunton to Baggy Point Coast SSSI. The preferred scenario (NAI) will continue to maintain these geological features. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	No known impacts on water. ST ○ MT ○ LT ○	Minor changes in landscape within AONB Heritage Coast and Coastal Preservation Area due to increased erosion and flooding. ST ○ MT ○ LT ○ There is potential for deteriorating coastal defence structures to become unsightly within AONB Heritage Coast and Coastal Preservation Area. ST ○ MT X LT XX <i>If defences are privately funded larger defences or more structures may be required to</i>	No known impact on Historic Environment. ST ○ MT ○ LT ○	Roads, amenities and infrastructure are at risk from fluvial flooding at Croyde Village. <i>(Impact outside the control of SMP2 policies)</i> Reduction in beach width and potential loss of cafes, camping parks in the long term. ST X MT X LT XX <i>Tourist infrastructure and amenities at risk from flooding at Croyde. Damage to these assets will impact on the tourism industry. (Impact outside the control of SMP2 policies)</i>	Loss of some properties north of Croyde. ST XXX MT XXX LT XXX
7c33	Middleborough Hill (Croyde Bay north)	B	NAI	NAI	NAI							

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7c34	Middleborough Hill (Croyde Bay north) to Baggy Point	A, B & C	NAI	NAI	NAI				<i>maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. (Impact outside the control of SMP2 policies)</i>			
Summary Assessment for SAUNTON DOWN TO BAGGY POINT (CROYDE BAY) Policy Scenario Area						ST ○ MT ○ LT ○	ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	ST ○ MT ○ LT ○	ST ○ MT X LT XX	ST ○ MT ○ LT ○	ST X MT X LT XX	ST ○ MT XX LT ○
Mitigation Measures/Environmental Opportunities						No mitigation required.	No mitigation required.	No mitigation required.	The Competent authority or private funder to consider the use of locally sourced building materials and sensitively landscape new structures. Opportunities should be identified to improve landscape character in AONB/Heritage Coast Management Plan.	No mitigation required.	Identification of affected assets to be communicated by the competent authority in order that privately funded defences may be planned. Mitigation for loss of sections of the South West Coastal Path will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land.	There may be no provision for compensating or mitigating the loss of private properties

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
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POLICY SCENARIO AREA: BAGGY POINT TO MORTE POINT (WOOLACOMBE BAY)												
7c35	Baggy Point to Napps Cliff (Putsborough)	A, B & C	NAI	NAI	NAI	No changes in Heath and coastal cliffs of the Morte Point SSSI and no changes in designated habitats of Middleborough Hill and Woolacombe Down CWS due to erosion. There may be minor changes due to fluvial flooding.	Continuation of natural processes is key to the integrity of Barricane beach SSSI and Mill Rock SSSI. The preferred scenario (NAI) will continue to maintain these geological features.	No known impacts on water. ST ○ MT ○ LT ○	Minor changes in landscape within North Devon AONB Heritage Coast and Coastal Preservation Area due to increased erosion and flooding. ST ○ MT ○ LT ○	Sections of the Conservation Area at Woolacombe are at risk from flooding. <i>(Impact outside the control of SMP2 policies)</i> No other known impact on Historic Environment i.e. Listed Buildings or Scheduled Monuments.	Roads, amenities and infrastructure are at risk from fluvial flooding at Woolacombe. <i>(Impact outside the control of SMP2 policies)</i> Tourist infrastructure and amenities at risk from flooding at Woolacombe. <i>(Impact outside the control of SMP2 policies)</i> Loss of the caravan park at Putsborough Sands, Slipway, and sections of the South West Coastal Path due to erosion. There is also a reduction in beach width at Rockham Bay, Putsborough Woolacombe and Barricane Bay due to erosion. The loss of these assets is predicted to occur in the long term and will impact on the tourist industry.	Residential properties are at risk from fluvial flooding at Woolacombe. <i>(Impact outside the control of SMP2 policies)</i>
7c36	Putsborough Sands and Vention	B	NAI	NAI	NAI				There is potential for deteriorating coastal defence structures to become unsightly within AONB Heritage Coast and Coastal Preservation Area. The natural life expectancy private coastal defence and Putsborough will not be compromised by the policy. ST ○ MT X LT XX			
7c37	Vention to Woolacombe Beach (Woolacombe Sands)	A, B & C	NAI	NAI	NAI							
7c38	Woolacombe Beach	A, B & C	NAI	NAI	NAI							

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7c39	Woolacombe to Morte Point	A, B & C	NAI	NAI	NAI				maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. <i>(Impact outside the control of SMP2 policies)</i>		ST ○ MT XX LT XXX Small areas of Grade 3 agricultural land and above are at risk from flooding. ST ○ MT X LT XX	
Summary Assessment for BAGGY POINT TO MORTE POINT (WOOLACOMBE BAY) Policy Scenario Area						ST ○ MT ○ LT ○	ST √√√ MT √√√ LT √√√	ST ○ MT ○ LT ○	ST ○ MT X LT XX	<i>(Impact outside the control of SMP2 policies)</i>	ST ○ MT XX LT XXX	<i>(Impact outside the control of SMP2 policies)</i>
Mitigation Measures/Environmental Opportunities						No mitigation required.	No mitigation required.	No mitigation required.	The Competent authority or private funder to consider the use of locally sourced building materials and sensitively landscape new structures. Opportunities should be identified to improve landscape character in AONB/Heritage Coast Management Plan.	No mitigation required.	Identification of affected assets to be communicated by the competent authority in order that privately funded defences may be planned. Mitigation for loss of sections of the South West Coastal Path will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land.	No mitigation identified.
POLICY SCENARIO AREA: MORTE POINT TO FORELAND POINT												
7d01	Morte Point to Lee (west)	A & B	NAI	NAI	NAI	Continuation of natural processes where there is no active intervention allows the natural evolution of the cliffs and there may be some loss of the Exmoor Heath SAC's	Loss of beach width due to erosion (Sillary Sands). ST X MT XX LT XX	No known impacts on water. ST ○ MT ○ LT ○	Minor changes in landscape within AONB Heritage Coast and Coastal Preservation Area due to increased erosion and flooding	Protection of the Conservation Areas at Ilfracombe, Lynton and Lynmouth from flooding. ST √√ MT √√	Protection of roads amenities, and infrastructure from flooding at Ilfracombe, Hele and Watermouth Cove, Combe Martin and	Protection of residential properties from flooding at Ilfracombe, Hele and Watermouth Cove, Combe Martin and Lynmouth. ST √√
7d02	Lee	A	HTL	HTL	HTL							

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health
7d03	Lee (east) to Ilfracombe (west)	A & B	NAI	NAI	NAI	vegetated sea cliffs and to Exmoor Coastal Heath due to erosion in the long term. <i>(This policy is considered further within the Habitats Regulations Assessment (Appendix J)).</i> ST ✓✓ MT ✓✓ LT ✓✓ No predicted changes in conservation value of the, West Exmoor Coast and Woods SSSI or The Dunkery and Horner Wood NNR due to flooding or erosion. ST ✓✓ MT ✓✓ LT ✓✓ A reduction in the total area of the Hillsborough LNR due to erosion. ST X MT XX LT XX	Continuation of natural processes is key to the integrity of the Morte Point SSSI, Hele Samsons and Combe Martin Bay SSSI and Napps Cave SSSI. NAI will continue to maintain these geological features. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓		but this is due to natural processes. ST ○ MT ○ LT ○ In some areas larger defences or more structures may be required in the medium to long term to maintain an acceptable standard of flood and erosion protection. This may result in an adverse impact on visual amenity and landscape character. ST ○ MT XX LT XX	LT ✓✓✓ Protection of Listed Buildings at Lee and Lynton and Lynmouth from flooding. ST ✓✓ MT ✓✓ LT ✓✓✓	Lynmouth. Protection of these assets will ensure these towns remain a tourist location. ST ✓✓ MT ✓✓✓ LT ✓✓✓ Protection of the holiday park, caravan site and camp site from flooding at Watermouth Cove. ST ✓✓ MT ✓✓✓ LT ✓✓✓ Protection of Ilfracombe and Lynmouth port/marina. This will allow for the continuing function of their fishing fleets. ST ✓✓ MT ✓✓✓ LT ✓✓✓ Loss or damage to sections of the South West Coastal Path due to Flooding. ST XX MT XXX LT XXX	MT ✓✓✓ LT ✓✓✓ The development opportunity planned for Ilfracombe is potentially at risk from flooding depending on its location. ST ○ MT ○ LT ○
7d04	Ilfracombe	A & B	HTL	HTL	HTL							
7d05	Ilfracombe (east – Larkstone Beach) to Hele Beach (west)	A & B	NAI	NAI	NAI							
7d06	Hele Beach	A	HTL	HTL	HTL							
7d07	Hele Beach (east) to Watermouth Slipway	A & B	NAI	NAI	NAI							
7d08	Watermouth Slipway	B	NAI	NAI	NAI							
7d09	Watermouth Slipway to Combe Martin	A & B	NAI	NAI	NAI							
7d10	Combe Martin	A & B	HTL	HTL	HTL							
7d11	Combe Martin to Lynmouth	A & B	NAI	NAI	NAI							
7d12	Lynmouth	A & B	HTL	HTL	HTL							

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
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7d13	Lynmouth to Foreland Point	A & B	NAI	NAI	NAI						No loss of Grade 3 or above agricultural land. ST ✓ MT ✓✓ LT ✓✓ Berrynabor is at risk from fluvial flooding. <i>(Impact outside the control of SMP2 policies)</i>	
Summary Assessment for MORTE POINT TO FORELAND POINT Policy Scenario Area						ST X MT XX LT XX	ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	ST ○ MT ○ LT ○	ST ○ MT ✓✓ LT XXX	ST ✓✓ MT ✓✓ LT ✓✓✓	ST ✓✓ MT ✓✓✓ LT ✓✓✓	ST ✓✓ MT ✓✓✓ LT ✓✓✓
Mitigation Measures/Environmental Opportunities						The potential to realign the Hillsborough LNR boundary landward, in the long-term, should be explored.	No mitigation required.	No mitigation required.	The Competent authority to use locally sourced building materials and sensitively landscaped new structures. Opportunities should be identified to improve landscape character in AONB/Heritage Coast Management Plan.	No mitigation required.	Mitigation for loss of sections of the South West Coastal Path will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land	No mitigation required.
POLICY SCENARIO AREA: FORELAND POINT TO HURLSTONE POINT												
7d14	Foreland Point to Gore Point	A, B & C	NAI	NAI	NAI	The gravel ridge will roll back unabated. This will increase the spatial extent of Porlock Ridge and Saltmarsh SSSI's designated saltmarsh continuing the evolution of the SSSI. Any freshwater habitat loss will have to be compensated. ST ✓✓✓	The gravel ridge will roll back unabated. This will maintain natural processes and continued evolution of the Porlock Ridge and saltmarsh SSSI. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓	Potential for landfill to be flooded which may cause pollution, this should be assessed in terms of the Water Framework Directive. ST XX MT XX LT XXX	Minor changes in landscape due to increased erosion and flooding but this is due to natural processes. ST ○ MT ○ LT ○ Potential for deteriorating coastal	Protection of the Conservation Areas at Porlock from flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓ The Conservation Zone at Bossington is at risk of flooding, in	Protection tourist and local infrastructure at Porlock Weir, Porlock, Allerton and Bossington. In addition, the risk of flooding at the landfill site will be reduced. ST ✓✓ MT ✓✓✓	Protection of residential properties, at Porlock Weir, Porlock, Allerton and Bossington ST ✓✓✓ MT ✓✓✓ LT ✓✓✓ The lack of secondary

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health
7d15	Gore Point to Porlock Weir	A & B	NAI	NAI	NAI	MT ✓✓✓ LT ✓✓✓			defence structures to become unsightly at Porlock Weir. ST X MT XX LT XX If defences are privately funded at Porlock Weir larger defences or more structures may be required to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. ST X MT XX LT XX	the medium and long term due to the lack of secondary defences. ST O MT XX LT XXX Limited protection of Listed Buildings at Porlock, as the defence fail the Listed Buildings are at risk. ST O MT XX LT XXX	LT ✓✓✓ Erosion of the gravel barrier is not predicted to impact on local infrastructure. The lack of secondary flood defence will see an increase in the flood risk to Porlock Weir, Porlock, Allerton and Bossington. ST O MT XX LT XXX The Quay at Porlock Weir will experience damage due to erosion in the long term. The beach will also see a reduction in width in this epoch. ST O MT O LT XX Loss or damage to sections of the South West Coastal Path due to Flooding but this will be relocated inland. ST X MT X LT XX No loss of Grade 3 or above agricultural land. ST ✓ MT ✓✓ LT ✓✓	flood defence will see an increase the flood risk to Porlock Weir, Porlock, Allerton and Bossington. ST X MT XXX LT XXX
7d16	Porlock Weir	Variation	NAI	NAI	NAI							
7d17	Porlock Weir to Hurlstone Point	B	NAI	NAI	NAI							
Summary Assessment for FORELAND POINT TO HURLSTONE POINT Policy Scenario Area						ST ✓✓✓ MT ✓✓✓	ST ✓✓✓ MT ✓✓✓	ST XX MT XX	ST O MT O	ST O MT X	ST O MT ✓	ST O MT O

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
					LT ✓✓✓	LT ✓✓✓	LT XXX	LT ○ and ST X MT XX LT XX (for Porlock Weir)	LT XX	LT ✓✓	LT ○	
Mitigation Measures/Environmental Opportunities					No mitigation identified. Compensatory habitat will be required in the long term.	No mitigation identified.	The policy of NAI should be implemented so as to not to adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets. Mitigation will be required at project level to protect landfill site from erosion and flooding to prevent pollution.	The Competent authority to use locally sourced building materials and sensitively landscaped new structures. Opportunities should be identified to improve landscape character in AONB/Heritage Coast Management Plan.	No mitigation identified.	Mitigation for loss of sections of the South West Coastal Path will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land.	No mitigation identified.	
POLICY SCENARIO AREA: HURLSTONE POINT TO HINKLEY POINT												
7d18	Hurlstone Point to Minehead (west)	A, B & C	NAI	NAI	NAI	Natural cliff erosion may cause loss of cliff habitats allowing the continued evolution of the Exmoor Coastal Heaths SSSI and SAC. This policy is considered further within the Habitats Regulations Assessment (Appendix J).	There will be a reduction in the spatial extent of the beaches at Minehead Terminus, The Strand, Dunster and Blue Anchor (medium and long term) through coastal squeeze.	No known impacts on water. ST ○ MT ○ LT ○	Minor changes in landscape due to increased erosion and flooding. ST ○ MT ○ LT ○ Potential for deteriorating coastal defence structures to become unsightly between Doniford and St Audries Bay. ST X MT XX LT XXX	Risk of flooding to the Conservation Area at Minehead. ST X MT XX LT XXX Protection of the Conservation Areas at Dunster, and Dunster Castle from flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓ Protection of Listed Building at Minehead	Risk from erosion to the road at Quay Street, Lifeboat station, lock infrastructure (long term), pipeline (long term), 2 substations in Minehead and harbour infrastructure. ST X MT XX LT XXX Protection of harbour infrastructure,	Protection of residential properties at Minehead and Blue Anchor from flooding. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓. Dependent on the location of the secondary defences, residential properties, are at risk from flooding at Dunster. <i>(Potential) negative impact.</i>
7d19	Minehead	A, B & C	HTL	HTL	HTL	ST ✓✓ MT ✓✓ LT ✓✓ Reduction in spatial extent of the CWS at the Blue Anchor Hotel Field and Blue Anchor to Lilstock	ST ○ MT XX LT XXX Reduction in beach width at Watchet and Lilstock due to erosion. ST ○					

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health
7d20	The Warren (Minehead Golf Course)	Variation	HTL	HTL	MR	Cliff CWS but due to natural processes. ST ○ MT ○ LT ○ Potential damage to the West Somerset Golf Course wildlife importance due to flooding. Potential damage habitat and species through saline intrusion but due to natural processes.	MT XX LT XXX At Blue Anchor SSSI managed realignment will allow the continuation of processes to maintain the geological features. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓		Larger or more structures may be required at Minehead, Blue Anchor and Watchet to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	from flooding. ST ✓ MT ✓✓ LT ✓✓ Potential for Audries Bay (Registered Historic Park and Garden) to be flooded. ST X MT X LT XX	sections of allotment gardens (long term), place of worship (medium term), a museum (medium term), and small section of the West Somerset Railway (long term) from erosion at Watchet and Minehead. ST ○ MT ✓✓ LT ✓✓✓ Reduction in beach width at Watchet and Lilstock due to erosion. ST X MT XX LT XX Protection of the holiday park infrastructure from outflanking of localised defence structures at Doniford. ST ✓ MT ✓✓ LT ✓✓ Loss of varying amounts of Grade 3 agricultural land due to flooding and erosion. ST ○ MT X LT XX Protection of small	Protection of a small number of commercial and residential properties from erosion at Watchet. ST ✓✓ MT ✓✓ LT ✓✓ Properties in Watchet are at risk from fluvial flooding. <i>(outside the control of SMP2 policies)</i>
7d21	Dunster Beach	Variation	HTL	HTL	MR	Cliff CWS but due to natural processes. ST ○ MT ○ LT ○ Potential damage to the West Somerset Golf Course wildlife importance due to flooding. Potential damage habitat and species through saline intrusion but due to natural processes.	Continuation of natural processes is key to the integrity of the Blue anchor to Lilstock SSSI. No Active Intervention will continue to maintain these geological features. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓		Larger or more structures may be required at Minehead, Blue Anchor and Watchet to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	from flooding. ST ✓ MT ✓✓ LT ✓✓ Potential for Audries Bay (Registered Historic Park and Garden) to be flooded. ST X MT X LT XX	sections of allotment gardens (long term), place of worship (medium term), a museum (medium term), and small section of the West Somerset Railway (long term) from erosion at Watchet and Minehead. ST ○ MT ✓✓ LT ✓✓✓ Reduction in beach width at Watchet and Lilstock due to erosion. ST X MT XX LT XX Protection of the holiday park infrastructure from outflanking of localised defence structures at Doniford. ST ✓ MT ✓✓ LT ✓✓ Loss of varying amounts of Grade 3 agricultural land due to flooding and erosion. ST ○ MT X LT XX Protection of small	Protection of a small number of commercial and residential properties from erosion at Watchet. ST ✓✓ MT ✓✓ LT ✓✓ Properties in Watchet are at risk from fluvial flooding. <i>(outside the control of SMP2 policies)</i>
7d22	Dunster Beach (east) to Ker Moor	A & B	MR	HTL	HTL	If managed realignment occurs in this epoch intertidal habitat will be created potentially offsetting losses due to the maintenance of defences at Minehead or other areas of coastal squeeze. There could be a loss of freshwater habitat as a result of this which should be compensated. ST ✓✓ MT ✓✓✓ LT ✓✓✓		Larger or more structures may be required at Minehead, Blue Anchor and Watchet to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	from flooding. ST ✓ MT ✓✓ LT ✓✓ Potential for Audries Bay (Registered Historic Park and Garden) to be flooded. ST X MT X LT XX	sections of allotment gardens (long term), place of worship (medium term), a museum (medium term), and small section of the West Somerset Railway (long term) from erosion at Watchet and Minehead. ST ○ MT ✓✓ LT ✓✓✓ Reduction in beach width at Watchet and Lilstock due to erosion. ST X MT XX LT XX Protection of the holiday park infrastructure from outflanking of localised defence structures at Doniford. ST ✓ MT ✓✓ LT ✓✓ Loss of varying amounts of Grade 3 agricultural land due to flooding and erosion. ST ○ MT X LT XX Protection of small	Protection of a small number of commercial and residential properties from erosion at Watchet. ST ✓✓ MT ✓✓ LT ✓✓ Properties in Watchet are at risk from fluvial flooding. <i>(outside the control of SMP2 policies)</i>	
7d23	Blue Anchor	A & B	HTL	HTL	NAI (possibly localised MR)	The Quantocks SSSI is at risk from flooding with potential impact on freshwater habitat through saline intrusion, but this will be due to natural processes. ST ○		Larger or more structures may be required at Minehead, Blue Anchor and Watchet to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	from flooding. ST ✓ MT ✓✓ LT ✓✓ Potential for Audries Bay (Registered Historic Park and Garden) to be flooded. ST X MT X LT XX	sections of allotment gardens (long term), place of worship (medium term), a museum (medium term), and small section of the West Somerset Railway (long term) from erosion at Watchet and Minehead. ST ○ MT ✓✓ LT ✓✓✓ Reduction in beach width at Watchet and Lilstock due to erosion. ST X MT XX LT XX Protection of the holiday park infrastructure from outflanking of localised defence structures at Doniford. ST ✓ MT ✓✓ LT ✓✓ Loss of varying amounts of Grade 3 agricultural land due to flooding and erosion. ST ○ MT X LT XX Protection of small	Protection of a small number of commercial and residential properties from erosion at Watchet. ST ✓✓ MT ✓✓ LT ✓✓ Properties in Watchet are at risk from fluvial flooding. <i>(outside the control of SMP2 policies)</i>	
7d24	Blue Anchor to Watchet	A, B & C	NAI	NAI	NAI	The Quantocks SSSI is at risk from flooding with potential impact on freshwater habitat through saline intrusion, but this will be due to natural processes. ST ○		Larger or more structures may be required at Minehead, Blue Anchor and Watchet to maintain an acceptable standard of flood and erosion protection in some areas, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	from flooding. ST ✓ MT ✓✓ LT ✓✓ Potential for Audries Bay (Registered Historic Park and Garden) to be flooded. ST X MT X LT XX	sections of allotment gardens (long term), place of worship (medium term), a museum (medium term), and small section of the West Somerset Railway (long term) from erosion at Watchet and Minehead. ST ○ MT ✓✓ LT ✓✓✓ Reduction in beach width at Watchet and Lilstock due to erosion. ST X MT XX LT XX Protection of the holiday park infrastructure from outflanking of localised defence structures at Doniford. ST ✓ MT ✓✓ LT ✓✓ Loss of varying amounts of Grade 3 agricultural land due to flooding and erosion. ST ○ MT X LT XX Protection of small	Protection of a small number of commercial and residential properties from erosion at Watchet. ST ✓✓ MT ✓✓ LT ✓✓ Properties in Watchet are at risk from fluvial flooding. <i>(outside the control of SMP2 policies)</i>	

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health
7d25	Watchet to Doniford	A, B & C	HTL	HTL	HTL	<p>MT ○ LT ○ Reduction in spatial extent of the CWS at Cridlands Corpse and Blue Anchor to Lilstock Cliff due to erosion of the cliffs but due to natural processes.</p> <p>ST ○ MT ○ LT ○</p>						<p>sections of the B3191 and gardens of the Blue Anchor Hotel from erosion.</p> <p>ST ✓ MT ✓✓ LT ✓✓</p>
7d26	Doniford to St Audries Bay	B	NAI	NAI	NAI							<p>The spatial extent of the West Somerset Golf Club is at risk due to erosion. In addition it is at risk from flooding.</p> <p>ST X MT X LT X</p>
7d27	St Audries Bay	A, B & C	NAI	NAI	NAI							<p>Dependent on the location of the secondary defences, roads, West Somerset Railway Line (and associated facilities) community and tourist infrastructure, are at risk from flooding at Dunster</p> <p>ST XX ? MT XX ? LT XX ?</p>
7d28	St Audries Bay to Lilstock	A, B & C	NAI	NAI	NAI							<p>Protection of roads, the West Somerset railway (and railway facilities) amenities and infrastructure, including tourist infrastructure, from flooding at Minehead and Blue Anchor</p> <p>ST ✓</p>
7d29	Lilstock	A & C	HTL	NAI	NAI							

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7d30	Lilstock to Hinkley Point	A, B & C	NAI	NAI	NAI						MT √√ LT √√√ Protection of the West Somerset Coastal Path from flooding along low-lying sections of this coast with the exception of Dunster Beach (east) to Ker moor. ST √ MT √√ LT √√ Loss of varying amounts of Grade 3 agricultural land due to flooding and erosion. ST X MT XX LT XX.	
Summary Assessment for HURLSTONE POINT TO HINKLEY POINT Policy Scenario Area						ST √√ MT √√√ LT √√√	ST √√ MT √√ LT √√	ST ○ MT ○ LT ○	ST ○ MT √√ LT XXX	ST ○ MT √√ LT XXX	ST ○ MT √√ LT XXX	
Mitigation Measures/Environmental Opportunities						No mitigation identified. Compensatory habitat could be identified in the long term as impacts are identified over this timeframe.	No mitigation identified.	No mitigation identified.	In areas of existing defences deteriorating defence will be removed to retain the visual amenity of the area. The Competent authority to consider the use of locally sourced building materials and sensitively landscape new structures.	No mitigation identified.	Identification of affected assets to be communicated by the competent authority Mitigation for loss of sections of the South West Coastal Path will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land	There may be no provision for compensating or mitigating the loss of private property.

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
POLICY SCENARIO AREA: HINKLEY POINT TO BREAN DOWN												
7d31	Hinkley Point	A, B & C	HTL	HTL	HTL	Coastal squeeze will occur at Hinkley Point (sea level rise against sea defences) resulting in a net decrease in intertidal habitat and distribution of the habitats and species in this area, which are key features of the Bridgwater Bay SSSI and NNR, Severn Estuary Ramsar, SPA and SAC. Therefore this policy is considered further within the Habitats Regulations Assessment (Appendix J). ST XX MT XX LT XXX	Defence may reduce the area of the intertidal platform at Hinkley Point through coastal squeeze, ST X MT XX LT XXX In areas where there is proposed MR there is a potential changes in soil chemistry through saline inundation. ST O MT O LT O	HTL at Hinkley Point and Hinkley Point to Stolford to protect the Nuclear Power Station will lead to the loss of intertidal habitat. thus potentially failing WFD objective 2 and 3. ST X MT XX LT XXX	Minor changes in landscape due to larger defences or more structures being required to maintain an acceptable standard of flood and erosion protection, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	Protection of Listed Buildings at Stolford Farm Combwich, Burnham-on-Sea, Highbridge, Berrow, ST ✓ MT ✓✓ LT ✓✓ Protection of Listed Buildings at Brean and Stolford Farm is dependant on whether the defences are maintained. ST O MT O LT O	Protection of the power station from erosion on the western edge of the site. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓ Potential inundation/ protection of critical infrastructure (power lines) Hinkley Point to Stolford. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓ Protection of minor roads on the Steart Peninsula from flooding. ST ✓✓ MT ✓✓ LT ✓✓	Protection of residential and commercial properties Hinkley Point to Stolford, Stolford and Steart Village, (This is dependent on the location of the secondary defences) Parrett Estuary, Burnham-on-Sea, Highbridge, Berrow, Berrow and Brean from flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓ Potential re-location of some of the seaward properties built into the dunes at Brean may be required to support the managed realignment policy. ST O MT XX LT O
7d32	Hinkley Point to Stolford	Variation	HTL	MR	HTL	In areas of managed realignment there will be a loss of freshwater habitat to intertidal habitat. This will offset losses of intertidal habitat to coastal squeeze elsewhere in the Estuary. Alternative freshwater compensatory habitat will also require identification. ST ✓✓ MT ✓✓✓ LT ✓✓✓	Localised narrowing of the beaches may occur in front of defences. ST X MT XX LT XX The beaches are at risk from flooding but this is unlikely to alter their spatial extent. ST O MT O LT O		Managed realignment will cause a change in landscape from low lying wetland to intertidal habitat as well as construction of a new set-back defence. ST O MT O LT O	Protection of Inland Scheduled Monuments at Stogursey Castle, Motte Baileys at Down End, Wick Barrow Mound, Cynwit Castle, Alkstone lake settlement site and the Medieval Village at Horsey flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓	Potential loss of some parts of the West Somerset Coastal Path and River Parrett Trail from flooding but can be re-routed. ST X MT XX LT XX	The development opportunities planned for Bridgwater Highbridge and Burnham-on-Sea are potentially at risk from flooding depending on its location. ST X MT O LT O
7d33	Stolford	Variation	HTL	MR	HTL	Wall Common CWS and Wall Common West Local Wildlife Site is at risk from flooding through managed realignment, resulting in a loss of freshwater habitats to intertidal habitat. This will offset losses of intertidal habitat to coastal	Continuation of natural processes is key to the integrity of the Brean Down SSSI. No active intervention will continue to maintain these geological features. ST ✓✓✓ MT ✓✓✓ LT ✓✓✓			Protection of sections of the Conservation Areas at Bridgwater Burnham-on-Sea and Highbridge. ST ✓ MT ✓✓ LT ✓✓	Protection of roads (A38 and M5), Mainline Railway (and associated facilities including the Highbridge and Burnham-on-Sea railway stations),	
7d34	Stolford to Wall Common	Variation	HTL	HTL/NAI	HTL/NAI							
7d35	Stewart Village	B	MR	NAI	NAI							
7d36	South of Stewart Village to north of Combwich (line of national grid power lines)	Variation	HTL	NAI	NAI							
7d37	Parrett Estuary from line of national grid power lines to Combwich	Variation	HTL	HTL	HTL							
7d38	Combwich	A, B & C	HTL	HTL	HTL							

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7d39	Combwich to Bridgwater (Parrett west)	Variation	HTL	HTL	MR	<p>squeeze elsewhere in the Estuary benefiting the Bridgwater Bay SSSI and NNR, Severn Estuary Ramsar, SPA and SAC. Where there is impacts of the Severn Estuary Ramsar, SPA and SAC the policy will be considered further within the Habitats Regulations Assessment (Appendix J)</p> <p>ST ○ MT ○ LT ○</p> <p>The Huntspill River NNR is potentially at risk from flooding which is currently detached from tidal influences by a sluice.</p> <p>ST X MT XX LT XX</p> <p>Maintaining the defences at Burnham on Sea will cause coastal squeeze leading to a net decrease in intertidal habitat which are key features of the Bridgwater Bay SSSI and NNR Severn Estuary Ramsar, SPA and SAC . This policy is considered further within the Habitats Regulations Assessment (Appendix J)</p>							
7d40	Bridgwater (upper Parrett Estuary)	A, B & C	HTL	HTL	HTL							<p>infrastructure in the Parrett Estuary, community and tourist infrastructure and the Burnham-on-Sea sailing club from flooding.</p> <p>ST ✓✓✓ MT ✓✓✓ LT ✓✓✓</p>	
7d41	Bridgwater to Dunball	A, B & C	HTL	HTL	HTL							<p>Protection of substations in the Bridgwater area, Dunwear and Sedgemoor from flooding.</p> <p>ST ✓✓✓ MT ✓✓✓ LT ✓✓✓</p>	
7d42	Dunball to River Brue	A, B & C	HTL	MR/HTL	MR/HTL							<p>Loss of Grade 3 agricultural land due to flooding.</p> <p>ST X MT XX LT XX</p>	
7d43	Burnham-on-Sea and Highbridge	A, B & C	HTL	HTL	HTL							<p>Protection of tourist infrastructure (holiday park including mobile homes, caravans and road) and the Burnham and Berrow Golf Course from flooding.</p> <p>ST ✓ MT XX LT XX</p>	
7d44	Berrow to Brean (north)	A	HTL	MR	MR								
7d45	Brean (north) to Brean Down	Variation	HTL	HTL	HTL/MR								

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
7d46	Brean Down (south side)	A, B & C	NAI	NAI	NAI	<p>ST XX MT XX LT XXX</p> <p>Dune management will help maintain the Berrow Dune SSSI and Local Nature Reserve, but may inhibit the dunes natural evolution and maturing process.</p> <p>ST X MT XX LT XX</p> <p>Brean Down SSSI will continue to evolve naturally.</p> <p>ST ✓✓ MT ✓✓✓ LT ✓✓✓</p>						<p>MT ✓✓ LT ✓✓</p>	
Summary Assessment for HINKLEY POINT TO BREAN DOWN Policy Scenario Area						<p>ST ○ MT ○ LT ○</p>	<p>ST ○ MT ○ LT ○</p>	<p>ST X MT XX LT XXX</p>	<p>ST XX MT XX LT XX</p>	<p>ST ✓✓ MT ✓✓✓ LT ✓✓✓</p>	<p>ST ✓✓✓ MT ✓✓✓ LT ✓✓✓</p>	<p>ST ✓✓ MT ✓✓✓ LT ✓✓✓</p>	
Mitigation Measures/Environmental Opportunities						<p>The Appropriate Assessment has determined that: 'Habitat loss due to coastal squeeze can be mitigated by the creation of new habitat through managed realignment, although in some cases it may not be possible to achieve an exact like-for-like replacement. This will be achieved through the <i>Severn Estuary Flood Risk Management Study Habitat Delivery Plan</i>'</p> <p>Impact at the Huntspill River NNR and Berrow Dune SSSI should be mitigated in the future at a project level.</p>	<p>No mitigation identified.</p>	<p>The policy of HTL should be implemented so as to not to adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.</p> <p>Mitigation will be required at project level to protect landfill site from erosion and flooding to prevent pollution.</p>	<p>In areas of managed realignment, existing deteriorating defence will be removed to retain the visual amenity of the area.</p> <p>The Competent authority to consider the use of locally sourced building materials and sensitively landscape new structures.</p>	<p>No mitigation required.</p>	<p>Mitigation for loss of sections of the West Somerset Coastal Path and River Parrett Trail will take the form of relocating the path further inland.</p> <p>No mitigation has been identified for losses of agricultural land</p>	<p>There may be no provision for compensating or mitigating the loss of private property.</p>	

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
POLICY SCENARIO AREA: BREAN DOWN TO ANCHOR HEAD (WESTON BAY)												
7e01	Brean Down (north side) to Axe Estuary (west)	A, B & C	NAI	NAI	NAI	Protection of intertidal and coastal areas of the Uphill SSSI and Local Nature Reserve from flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓	Reduction in beach width at the southern end of Weston Bay due to erosion. ST X MT XX LT XXX	No known impacts on water. ST ○ MT ○ LT ○	In areas of managed realignment there will be a change from a terrestrial landscape to an intertidal landscape. ST ○ MT ○ LT ○	Protection of Listed Buildings in Uphill and Weston-Super-Mare and a Scheduled Monument at Walborough from back-door flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓	Protection of, tourist related infrastructure, roads (A370), Mainline Railway (and associated facilities) and infrastructure from flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓	Protection of residential and commercial properties from back-door flooding in Uphill and Brean. ST ✓✓ MT ✓✓✓ LT ✓✓✓
7e02	Axe Estuary west bank (mouth to near Diamond Farm)	Variation	HTL	HTL/MR	HTL/MR	Freshwater habitats are at risk of flooding through managed realignment, resulting in a loss of freshwater habitats to intertidal habitat. This will offset losses of intertidal habitat to coastal squeeze elsewhere in the Estuary benefiting Severn Estuary SSSI, Ramsar, SPA and SAC. This policy is considered further within the Habitats Regulations Assessment (Appendix J)			Minor changes in landscape at Weston Super Mare due to larger defences or more structures being required to maintain an acceptable standard of flood and erosion protection, thus potentially resulting in a change of views and a change in landscape character. ST XX MT XX LT XX	Protection of the Conservation Area at Uphill and Weston-Super-Mare from flooding. ST ✓ MT ✓✓ LT ✓✓	Protection of the pier to Birnbeck Island (long term) from erosion and maintenance of the spatial extent of the dune field. ST ○ MT ○ LT ✓✓✓	Protection of residential and commercial properties in Weston-Super-Mare from flooding. ST ✓✓ MT ✓✓✓ LT ✓✓✓
7e03	Axe Estuary east bank (near Diamond Farm to mouth)	B	HTL	MR	HTL						Potential loss of some parts of the West Mendip Way from flooding and erosion along the Golf Course at Uphill. ST X MT X LT XX	The development opportunities planned for Weston-Super-Mare are potentially at risk from flooding depending on their locations. ST ? MT ? LT ?
7e04	Axe Estuary mouth to Uphill	B	HTL	MR	HTL	Maintaining the defences at the secondary defence line and the main defence line at Weston-Super-Mare will cause coastal squeeze leading to a net decrease in intertidal habitat which are key features of the Severn Estuary SSSI, Ramsar, SPA and SAC. This policy is					Protection of the substations at Weston-Super-Mare from flooding.	

Policy Unit (Number and Description)		Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)							
			Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health	
7e05	Uphill to Weston-super-Mare (south)	A	MR	MR	MR	considered further within the Habitats Regulations Assessment (Appendix J). ST XX MT XX LT XXX The Walborough SSSI and local nature reserve is at risk from flooding.						ST ✓✓✓ MT ✓✓✓ LT ✓✓✓ Low grade agricultural land at risk from flooding. ST X MT X LT X	
7e06	Weston-super-Mare	A, B & C	HTL	HTL	HTL	Net reduction in the dune area due to erosion and coastal squeeze against coastal defence at the Uphill golf course resulting in adverse impact on CWS. ST XX MT XX LT XX							
Summary Assessment for BREAN DOWN TO ANCHOR HEAD (WESTON BAY) Policy Scenario Area						ST XX MT XX LT XXX	ST X MT XX LT XXX	ST O MT O LT O	ST XX MT XX LT XX	ST ✓ MT ✓✓ LT ✓✓	ST ✓✓ MT ✓✓✓ LT ✓✓✓	ST ✓✓ MT ✓✓✓ LT ✓✓✓	
Mitigation Measures/Environmental Opportunities						The Appropriate Assessment has determined that: Habitat loss due to coastal squeeze can be mitigated by the creation of new habitat through managed realignment, although in some cases it may not be possible to achieve an exact like-for-like replacement. This will be achieved through the Severn Estuary Flood Risk Management Study Habitat Delivery Plan Impact at the Walborough SSSI and Uphill CWS should be mitigated in the	No mitigation identified.	No mitigation identified.	In areas of managed realignment, existing deteriorating defence will be removed to retain the visual amenity of the area. The Competent authority to consider the use of locally sourced building materials and sensitively landscape new structures.	No mitigation required.	Mitigation for loss of sections of the West Mendip Way will take the form of relocating the path further inland. No mitigation has been identified for losses of agricultural land	No mitigation identified.	

Policy Unit (Number and Description)	Scenario	Preferred Policy			Environmental Effects (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
		Short Term (to 2025)	Medium Term (to 2055)	Long Term (to 2105)	Biodiversity, Flora and Fauna	Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population, property and Human Health
					future at a project level.						

Fulfilment of SEA Objectives

	Objective	Fulfilment of SEA Objectives by Preferred SMP Policies
Social	To avoid loss of property due to erosion and/or manage risk of flooding to people and property (Population and human health)	For much of the coastline, the preferred SMP policy is to maintain existing defences where economically viable in the long-term, thus having a beneficial impact on people, their health and property by protecting areas of significant urban development and developed parts of the coastline from flooding or erosion. However, there are some undeveloped areas where isolated properties and areas of community, recreational and amenity facilities exist and may be lost to flooding or erosion through allowing the coastline to retreat naturally. In these areas the SEA objectives relating to population and human health are unlikely to be met fully.
	To avoid loss due to erosion of and manage risk of flooding to key community, recreational and amenity facilities (Population and human health)	Under the preferred long-term policies, the key centres of tourism and recreation will continue to be protected. However, this will be at the expense of beaches along many of these frontages, which are unlikely to be retained as the frontages and promenades become more prominent, exposed and less accessible. Consequently, the objective to avoid loss of key community, recreational and amenity facilities cannot be met fully.
Economic	To avoid loss due to erosion of and manage risk of flooding to industrial, commercial and economic assets and activities (Population, material assets)	The proposed SMP policies are generally likely to be beneficial to industrial, commercial and economic assets and/or activities, by protecting areas of significant development from flooding or erosion. However, the preferred SMP policy would only partially meet this objective as the SMP accepts that some isolated industrial or commercial facilities may be affected by flooding or erosion, as policies leading to a more 'natural' shoreline in the long-term have been identified.
	To minimise the impact of policies on marine operations and activities (Material assets)	Throughout the majority of the SMP area, the objective to minimise the impact of the SMP policies on marine operations and activities will have been achieved in the areas of continued defence, although some smaller fishing villages which have not received protection may have access to the sea affected.
	To ensure critical road and rail linkages are maintained (Material assets)	For much of the coastline the preferred policy is to maintain existing defences where economically viable in the long term. This will help to minimise loss of critical infrastructure along the developed parts of the coastline as far as possible. The major road (M5 and A38) and main rail linkages (Exeter to Bristol and Burnham on Sea) are maintained where as some of the more regional roads and railways (e.g. West Somerset Railway) will be at risk of flooding and erosion. Consequently, it may be necessary to re-route some of this infrastructure in the longer term under this SMP.

	Objective	Fulfilment of SEA Objectives by Preferred SMP Policies
	To ensure critical services remain operational (Material assets)	For much of the North Devon and Somerset coastline the preferred policy is to maintain existing defences where economically viable, which will help to minimise loss of critical services along the developed parts of the coastline as far as possible. In areas where a change in management policy has been identified for the longer term, further consideration of critical services will be required to ensure that they can remain operational.
Environmental	<i>To allow natural processes and maintain visibility of geological exposures throughout geological Sites of Special Scientific Interest (SSSIs).</i> (Geology and Soils)	The proposed SMP policies seek to support natural processes and maintain the visibility of geological exposures wherever possible. There are however, some areas where continued protection of significant urban settlements or communities is required and in these areas the preferred SMP policies fail to meet this SEA objective. In general, the SMP is not recommending the construction of new defences to maintain economic assets in areas where none are currently present.
	<i>To maintain the integrity of internationally designated sites and the favourable condition of their interest features.</i> (Flora, fauna and biodiversity)	The proposed SMP policies seek to support natural processes and maintain the integrity of designated conservation sites and along most areas of the coastline, this objective will be met by the preferred policies. There are however, some areas where there are conflicts between supporting the natural environment and maintaining defences resulting in coastal squeeze meaning this objective could not be fully achieved. In such areas, compensatory habitat (both intertidal and freshwater habitat) is sought. However, the SMP policies have been developed so that they enable careful management of the shoreline between Hartland Point and Anchor Head to sustain the designated habitats already in place wherever possible and to manage the impact of sea level rise. The conflicting objectives of a more dynamically functioning coastline coupled with conserving existing habitat will rely on the adoption of the appropriate management policy.
	<i>To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites.</i> (Flora, fauna and biodiversity)	The objective to avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites is partially met by the SMP objectives. Along parts of the SMP frontage, some nationally designated interest features may be affected or lost due to sea level rise and coastal squeeze against fixed defences. However, in many areas a preferred long-term policy of no active intervention or managed realignment will continue to enhance intertidal habitat features. Careful management of the shoreline between Hartland Point and Anchor Head is necessary to sustain the designated habitats already in place, while managing for the impact of sea level rise. The conflicting objectives of a more dynamically functioning coastline coupled with conserving existing habitat will rely on the adoption of the

Objective	Fulfilment of SEA Objectives by Preferred SMP Policies
	appropriate management policy.
<p><i>To avoid adverse impacts on, conserve and where practical enhance the designated interest of locally designated conservation sites</i> (Flora, fauna and biodiversity, geology)</p>	<p>The SEA objective to avoid adverse impacts on local nature conservation sites will be partially met by the preferred SMP policies. In some of the coastal areas, the preferred plan will result in the loss of some designated habitat, particularly freshwater terrestrial, while in other areas, it may result in habitat creation (e.g.. Steart Point). Careful management of the shoreline between Hartland Point and Anchor Head is necessary to sustain the designated habitats already in place, while managing for the impact of sea level rise. The conflicting objectives of a more dynamically functioning coastline coupled with conserving existing habitat will rely on the adoption of the appropriate management policy.</p>
<p><i>To prevent pollution from contaminated sources</i> (Geology and soils, water)</p>	<p>In most areas along the coastal frontage, the preferred SMP policy provides protection from flooding or erosion to the majority of potentially polluting features such as landfill sites (e.g.. Northam Burrows).</p> <p>However, there are a few areas where flooding or erosion of landfill sites may be experienced and in these areas, potential or known contamination sources would be managed to avoid pollution of water and/or soils (e.g.. Porlock). Consequently, it is envisaged that the preferred SMP policies could be implemented in a manner that fulfils the SEA objective to prevent pollution from contaminated sources.</p>
<p><i>To avoid adverse impacts on scheduled and other nationally, regionally and locally important cultural heritage sites.</i> (Historic Environment)</p>	<p>Many more of the historic environment will be protected through the preferred SMP policies than would survive under a no active intervention policy. Many features are retained and protected through the preferred policies. However, along some stretches of coastline, there may be possible damage to or loss of historic environmental features in the longer term due to flooding and/or erosion thus the SMP policies would only partially achieve the SEA objective to avoid loss of scheduled and other nationally important historic environment assets and features.</p>
<p>To avoid conflict with AONB Management Plan, Exmoor National Park, Heritage Coast and Coastal Preservation Area Objectives. (Landscape)</p>	<p>The preferred SMP policies seek to achieve a free functioning natural coastline wherever possible, thus creating a more natural coastal landscape and reducing piecemeal man-made structures on the beach. This is more beneficial to the landscape than a policy of defending the whole coastline, which would involve construction of new, more substantial defences, which in some places would also be unlikely to be technically sustainable or economically viable.</p> <p>Generally, the SMP policies therefore achieve the SEA objective to conserve and enhance AONBs and avoid conflicts with AONB Management Plan, Exmoor National Park or Heritage Coast objectives though in some areas, the loss of coastal properties, may affect the quality of the landscape. As well as the long term maintenance of</p>

	Objective	Fulfilment of SEA Objectives by Preferred SMP Policies
		some coastal defences associated with the densely populated areas.
	To avoid loss due to erosion of and/or manage risk of flooding to agricultural land (Population, soils)	The preferred SMP policies will partially fulfil the SEA objective to avoid loss due to erosion/flooding of agricultural land. In some areas, low grade agricultural land will be lost
	<i>To achieve compliance with Water Framework Directive objectives.</i> (Water)	The preferred policies generally comply with the Water Framework Directive as the coastline is maintained as far as possible in its naturally functioning state. However there are conflicts between allowing natural processes and protecting landfills from causing pollution to coastal bodies. There are also some compliancy issues relating to Managed Realignment. However the policies are broadly in compliance with the Water Frameworks Directive.