South Devon and Dorset Coastal Advisory Group (SDADCAG)

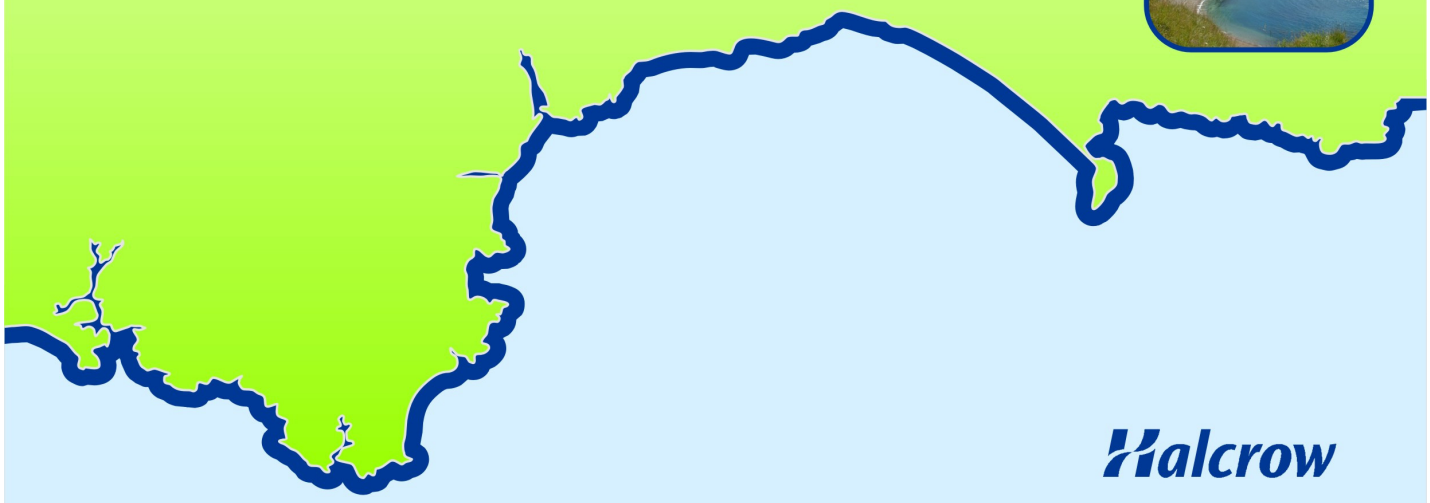
Shoreline Management Plan SMP2
Durlston Head to Rame Head

Appendix I – Strategic Environmental Assessment







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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: Policy Development and Appraisal	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.

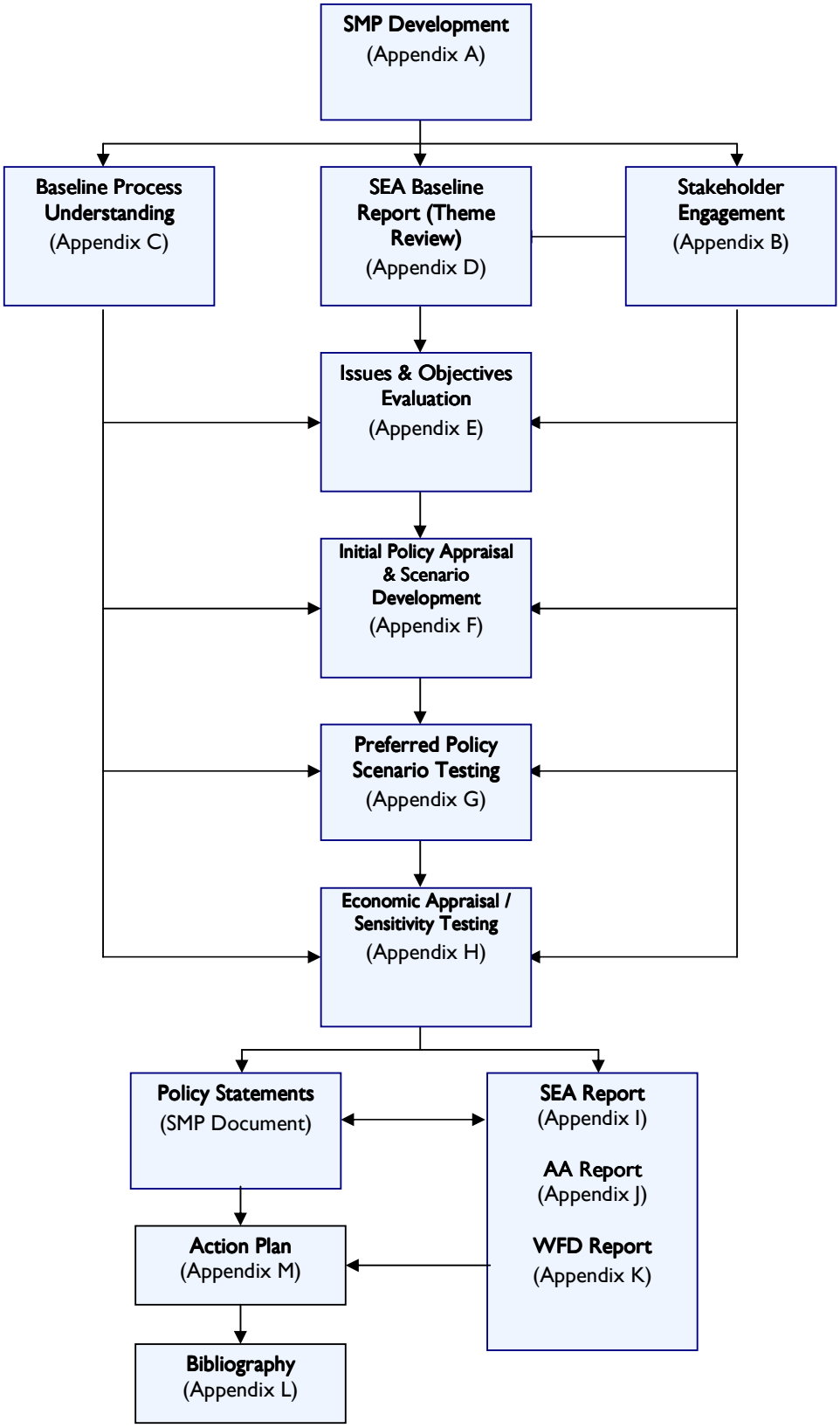

SMP Development
(Appendix A)
Baseline Process Understanding
(Appendix C)
SEA Baseline Report (Theme Review)
(Appendix D)
Stakeholder Engagement
(Appendix B)
Issues & Objectives Evaluation
(Appendix E)
Initial Policy Appraisal & Scenario Development
(Appendix F)
Preferred Policy Scenario Testing
(Appendix G)
Economic Appraisal / Sensitivity Testing
(Appendix H)
Policy Statements
(SMP Document)
SEA Report
(Appendix I)
AA Report
(Appendix J)
WFD Report
(Appendix K)
Action Plan
(Appendix M)
Bibliography
(Appendix L)

Table of Contents

I.1 Introduction and Background

I.1.1 The South Devon and Dorset 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, 2006[1]).

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.

Figure 1.1 shows the area covered by the South Devon and Dorset SMP.

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

Figure 1.1 Location of South Devon and Dorset SMP

The SMP covers the coastline from Durlston Head in Dorset to Rame Head in Cornwall.

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

A Non-technical Summary has been prepared to summarise the SEA process and is provided as a separate document.

I.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.

In developing the South Devon and Dorset Shoreline Management Plan (SMP), the environment has been considered alongside social, technical and economic issues. This appendix documents the SEA process undertaken for the South Devon and Dorset SMP. It demonstrates how the SEA process has been carried out during the development of the South Devon and Dorset SMP and outlines how the SEA Directive's requirements have been met, by providing summary information on each element of the SEA process and by signposting the relevant sections of the main SMP document (see section 2.3 'SEA Signposting'), as appropriate.

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 I2.2), this appendix (with signposting to relevant sections within the main SMP and associated appendices) has been produced to document the SEA process.

I.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)'. 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 of Habitats and Species Regulations 2010.
- A Practical Guide to the Strategic Environmental Assessment Directive (ODPM 2005)
- Marine and Coastal Access Act 2009

There is no legal requirement to undertake SEA for SMPs because they are not deemed to be 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. Further to this, Defra guidance (Defra, September 2004[3]), best practice guidelines and internal have identified a need to undertake a SEA.

I.1.4 Structure of this Report

This appendix documents the SEA process we have undertaken throughout our SMP planning process and covers:

- 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 Signposting table to show how and where the requirements of the SEA Directive have been fulfilled, in the SMP.

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

[3] Nason, S (2004). *Guidance to operating authorities on the application of SEA to Flood Management Plans and Programmes.* Defra, 16th September 2004.

- 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 appraised preferred SMP policy options.
- Section 6 – Consultation: describes communications on the SEA /SMP and signposts 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 1 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).

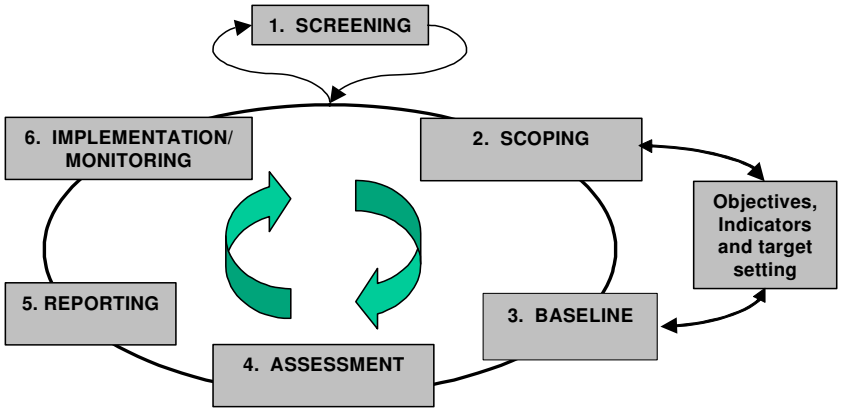
Table 2.1 SEA Stages and Tasks

SEA stages and tasks	Purpose
Setting the context and objectives, establishing the baseline and deciding on the scope	
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.
Developing and refining alternatives and assessing effects	
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.
Preparing the Environmental Report	
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.
Consulting on the draft plan or programme and the Environmental Report	
Consulting the public and Consultation Bodies on the draft plan or programme and the	To give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental

SEA stages and tasks	Purpose
Environmental Report	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 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 and Figure 2.1 has been applied to the development and assessment of the South Devon and Dorset SMP.

Figure 2.1 Summary of the SEA Process



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

I.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 to help set the framework for future planning and allow a strategic approach, as SMPs have significant environmental implications and require extensive consultation (www.defra.gov.uk).

No formal 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) was undertaken during the production of the Environmental Baseline report (Thematic Review) – see **Appendix D** of the SMP.

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	Sites designated as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites. The need to undertake an Appropriate Assessment for Natura 2000 sites is also considered.	International conservation sites that will not be affected by flooding or erosion.	*To support natural processes and maintain the integrity of internationally designated nature conservation sites and the favourable condition of their interest features* Note: for SPAs, cSACs, 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.	Within the SMP area, there are 18 Natura 2000 sites (SPA, cSAC, SAC and Ramsar sites). All have potential to be affected (positively or negatively) by changes in flooding or erosion and by coastal defence interventions.
	Sites designated as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and an Area of Special Protection (ASP).	National conservation sites that will not be affected by flooding or erosion.	*To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites.*	Within the SMP area, there are 56 SSSIs, 4 NNRS and 1 ASP. All have potential to be affected (positively or negatively) by changes in flooding or erosion and by coastal defence interventions.
	Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves (LNRs), non-statutory nature reserves, Regionally Important Geological Sites (RIGS) and Geological Conservation Review (GCR) sites.	Local conservation sites that will not be affected by flooding or erosion Biodiversity Action Plan (BAP) Habitats and Species have been scoped out as a thorough appraisal of them is not possible without knowledge and specific details of project level schemes or because complete data coverage of the SMP area is not available.	*To avoid adverse impacts on, conserve and where practical enhance the designated interest of locally designated conservation sites*	Within the SMP area, there are over 100 SINCs, over 100 GCRs, 5 LNRs and 3 non-statutory nature reserves. All have potential to be affected (positively or negatively) by changes in flooding or erosion and by coastal defence interventions. There are 16 UK and local BAP habitats (priority and broad habitats) and numerous priority

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
				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.
Earth Heritage, Soils and Geology	Sites designated as Geoparks, World Heritage Site (WHS) and SSSIs (geological)	N/A	*To support- natural processes and maintain visibility of geological exposures throughout internationally and nationally designated Earth Heritage sites*	Within the SMP area, there is 1 geological WHS , 1 geopark and 37 geological SSSIs. All have potential to be affected by changes in flooding or erosion, particularly in a negative way by coastal defence interventions. SMP policies need to be compatible with objectives of Jurassic Coast WHS Management Plan.
Air and Climate	Climate change	As air quality and noise levels will not influence or be affected by the recommendations of this SMP, these receptors have been scoped out.	No objective developed – Defra's recommended allowances for sea level rise have been used to provide erosion lines and flooding scenarios for the SMP.	N/A
Water	Sites included are designated bathing waters, historic and active landfill sites (EA source), anecdotal evidence of disused mines and potentially contaminated land, known bathing water sites, surface and ground water. Water Framework Directive (WFD) Assessment	Known areas of contaminated land held by the local authorities as this was not made available during the assessment.	*To prevent pollution from contaminated sources*	There is the possibility that contaminants can be spread over a wide area if they are transported by tidal flooding.
Landscape Character and Visual Amenity	Sites designated as Areas of Outstanding Natural Beauty (AONB) and Heritage Coasts	Locally important landscapes designated by the local authorities.	*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*	Within the SMP area, there are 6 AONBs and 4 Heritage Coasts. All have potential to be affected by changes in flooding or erosion, particularly in a negative way by

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
			Objectives.	coastal defence interventions.
Historic Environment (Cultural Heritage)	Sites designated as World Heritage Sites (historic), Scheduled Monuments, Registered Parks and Gardens, Listed Buildings, Marine Wreck Sites, built Conservation Areas and non-designated archaeology of national importance.	Non-designated archaeology of local or regional importance	*To avoid loss of scheduled and other internationally and nationally important heritage assets and features.*	Within the SMP area, there is 1 World Heritage Site (historic), 184 Scheduled Monuments, over 26 Registered Parks and Gardens, listed buildings and over 500 wreck sites. In addition, there are nationally significant non-designated archaeological assets. All have potential to be affected (positively or negatively) by changes in flooding or erosion. SMP policies need to be compatible with objectives of Cornwall and West Devon WHS Management Plan.
Material Assets	Ports and harbours, boatyards, moorings, yacht and sailing clubs. Lifeboats, Ferry terminals Coastguard, lifeboat and lifeguard. Access to the sea and navigation	N/A	*To minimise the impact of policies on marine operations and activities*	There are numerous ports and harbour activity within the SMP area A range of critical infrastructure and services are present within the SMP and could potentially be affected by changes in flooding or erosion. Policies of no active intervention or managed realignment could result in the damage to or loss of some of these material assets.
	A -, B - and minor roads (where linkage is a key issue), railway lines and stations		*To ensure critical road and rail linkages are maintained*	
	Pumping stations, sewage works, wind turbines, landfills, power stations, sub-stations. Access for emergency services	N/A	*To ensure critical services remain operational*	A range of services are present within the SMP and could potentially be affected by changes

SEA Environmental Receptor	Scope and Justification		Relevant Environmental Objective	Relevance to SMP
	Scoped In	Scoped Out		
				in flooding or erosion. Policies of no active intervention or managed realignment could result in the damage to or loss of some of these material assets.
Land Use	Grades 1 – 3A Farmland	Low grade agricultural land (grades 3A to urban)	*To avoid loss due to erosion of and/or manage risk of flooding to agricultural land*	Agricultural land can be affected by changes in flooding or erosion. Policies of no active intervention or managed realignment could result in the damage to or loss of some of these land uses.
Population and Human Health	Ministry of Defence ranges and land	N/A	*To ensure MoD ranges remain operational.*	MoD ranges and land can be affected by changes in flooding and erosion.
	The impact of flooding on housing and communities they live in.	Disease, stress and trauma as a result of flooding/erosion.	*To avoid loss of property due to erosion and/or manage risk of flooding to people and property*	Flood/erosion risks to people and property.
	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 facilities (e.g. bathing beaches, swimming pools, Country Parks, Castles and Forts) and access to community/amenity facilities.	Other than in exceptional circumstances, Public Rights of Way (e.g. the South West Coast Path National Trail) will not be considered in the detailed policy appraisal.	*To avoid loss due to erosion of and manage risk of flooding to key community, recreational and amenity facilities*	Flood/erosion risks to people, property, community and recreational facilities and other local services, particularly from policies of no active intervention or managed realignment.
	Shops, offices, businesses, factories, warehouses, golf courses, areas identified for regeneration, nursery grounds, caravan parks, stone and mineral extraction sites, military establishments and others key areas of employment	N/A	*To avoid loss due to erosion of and manage risk of flooding to industrial, commercial and economic assets and*	

I.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.

I.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. 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.

I.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 features and issues identified 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 1 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 epoch (short-term, medium-term and long-term) were identified and assigned a level of strategic significance (prior to mitigation). Significance is recorded in the Environmental Assessment of Preferred Policy Options (Annex 1.1) as being minor, moderate or major negative or beneficial. Where no effect is identified, a neutral effect has been assigned.

The following assumptions have been taken into account:

- Where the environmental assessment records the potential flooding of a landfill site or failure of Water Framework objectives the significance rating is recorded as major negative;
- The significance of the protection of a designated feature as a result of SMP policy is recorded as beneficial;
- The significance of damage to or loss of part of whole of a designated feature as a result of SMP policy is recorded as negative;
- The significance rating of unsightly deteriorating structures is recorded as increasing over the timescale of the SMP;
- Where loss of properties due to flooding or erosion is recorded, a major negative effect is assumed. Where protection of properties is recorded, this is considered to be major beneficial;
- Risk is not treated to be as significant as loss;
- Impacts are considered to increase in significance over the epochs of the SMP; and
- Impacts on the South West Coastal Path are recorded in most cases as minor adverse as the path can usually be realigned.

Where an option is considered to have an 'uncertain or adverse effect' on the integrity of an international conservation site, this is acknowledged as both a major significant negative effect for SEA purposes, and 'HR adverse effect' for the purposes of the Habitats Regulations Assessment, in the assessment tables.

Non strategic impacts and issues not considered to be significant at SMP level were not considered in the SEA. Similarly, the magnitude of SEA impacts was not considered during this high level assessment, as they are not considered to contribute to a meaningful assessment without further study/investigations, assessment and monitoring of SEA receptors.

Mitigation Measures: These were identified for inclusion in the assessment process, and included avoidance and measures to minimise adverse effects (see Annex 2 of this Appendix).

Selection of the Preferred SMP Policy Scenarios – based on the appraisal of policy scenarios, 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.

I.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.

I.2.1.6 Reporting

The SEA was integrated (in process terms) into the SMP and this report describes how the South Devon and Dorset SMP achieves the requirements of the 2004 SEA Regulations[4]. 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 South Devon and Dorset 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.

I.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**.

I.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.

Table 2.3 SEA compliance table

Environmental Report Requirements	Location of information within this SEA Appendix
(a) an outline of the: • contents; • main objectives of the plan or programme; and, • relationship with other relevant plans and programmes;	Table of Contents Section I1 - Introduction and Background (objectives of SMP) Section I3 – Strategic and Planning Policy Context
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	Section I4 – Environmental Baseline Annex 1 – Environmental Assessment of Alternative SMP Policy Options
(c) the environmental characteristics of areas likely to be significantly affected;	Section I4 – Environmental Baseline
(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;	Section I4 – Environmental Baseline

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

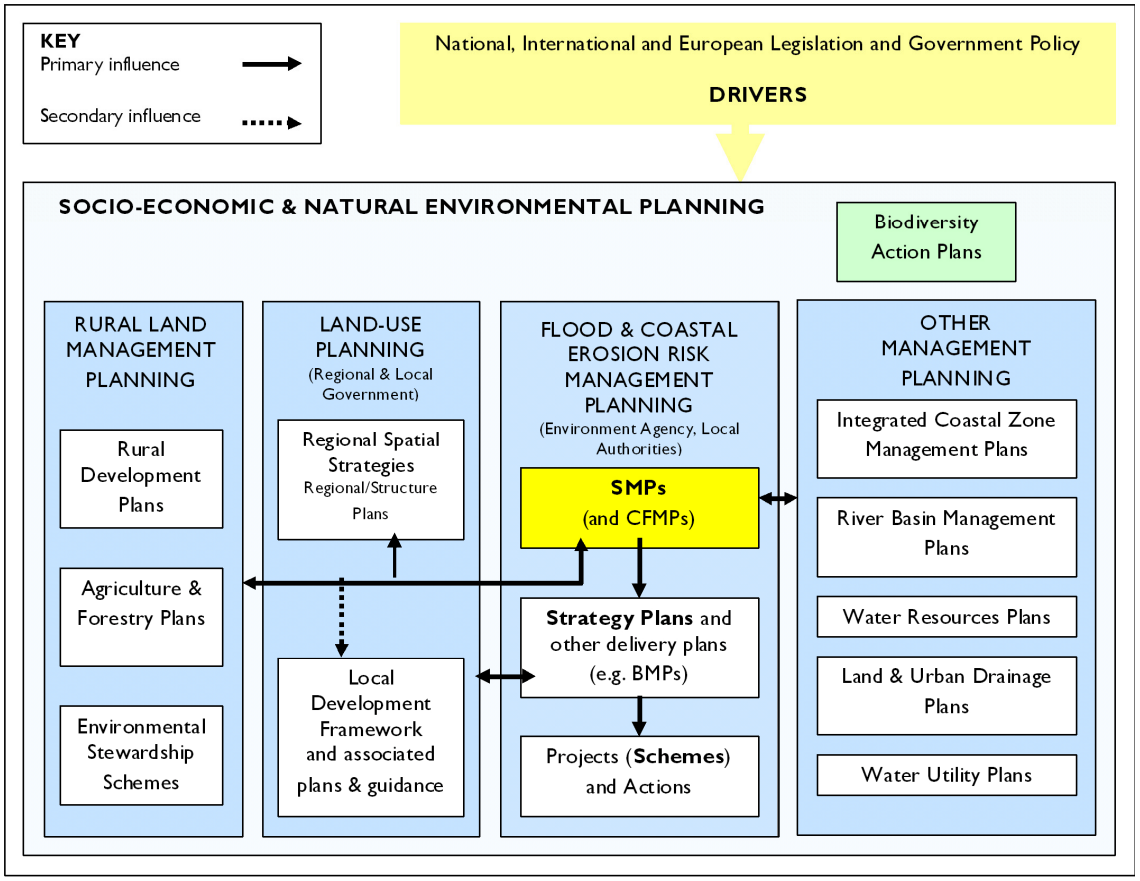
Environmental Report Requirements	Location of information within this SEA Appendix
(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;	Section I5 – Establishing SEA Environmental Objectives
(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, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;	Section I7.2 – Environmental appraisal of alternative SMP policy options Section I8 – Environmental effects of the preferred policy options Annex 1.1 – Environmental Assessment of Preferred Policy Options
(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;	Section I8 – Environmental effects of the preferred policy options Annex 1.1 – Environmental Assessment of Preferred Policy Options – see mitigation measures and environmental enhancements
(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;	Section I7.2 – Environmental appraisal of alternative SMP policy options Section I8.4 – Difficulties and Uncertainties
(i) a description of the measures envisaged concerning monitoring in accordance with Article 10;	Section I8.5 – Monitoring
(j) a non-technical summary of the information provided under the above headings.	Non-technical Summary

I.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**.

I.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.
- provides mapping of the boundaries of the key environmental features or assets identified along the coastline.

Table 4.1 shows the 'themes' covered in **Appendix D**, which cover more than one SEA receptor.

Table 4.1 Link between Themes and SEA Receptors

Thematic Review	**SEA Receptor** (as described in the Environmental Assessment of Plans and Programmes Regulations 2004 - SI 2004 1633)
Natural Environment	Flora, Fauna and Biodiversity
	Geodiversity
	Soil
	Air and Climatic Factors
	Water
Landscape Character and Visual Amenity	Landscape
	Seascape
	Visual Amenity
Historic Environment	Cultural Heritage, including architectural and archaeological heritage
Land Use, Infrastructure and Material Assets	Material Assets
Population and Human Beings	Population
	Human Health

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 features and trends that characterise the area covered by the SMP. The environmental issues are summarised in Table 4.2.

The coastline covered by this plan has a rich diversity in its physical form, human usage and natural environment: including cliffs of both habitat and geological interest, low-lying plains fronted by dunes and beaches, towns and villages along the coastal fringe and areas of agricultural land. This combination of assets creates a coastline of great value, with a tourism economy of regional importance.

Table 4.2 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	The study area supports a variety of habitats including seacliffs, mudflats, saltmarsh, estuaries, sand dunes, reedbeds, marshland, woodland, heathland, grassland, shingle bars, beaches and lagoons. The quality of these natural habitats along the coastline is reflected in the designation of the following international nature conservation sites: - • 3 Special Protection Areas (SPA) and Ramsar sites • 11 Special Areas of Conservation (SAC) • 2 candidate SACs The strategy area is also designated nationally (Sites of Special Scientific Interest, National Nature Reserves and an Area of Special Protection) and locally for its nature conservation value. Opportunities exist to create wetland habitat in low-lying parts of the study area.
Soils and Geology	The geological interest of the coastline includes stratigraphic features, which are reflected in a range of designated earth heritage sites of local, regional, national and international importance. The international earth heritage designations comprise the Dorset and East Devon ('Jurassic Coast') World Heritage Site (WHS) and the English Riviera Geopark. Natural erosion is a key driver in maintaining the outstanding universal value of the 'Jurassic Coast' by exposing rock sequences in the cliff faces and releasing fossils to the beach. The geomorphology of the area is varied and includes shingle banks and bars, sand dunes, beaches and saltmarshes. The major shingle features of national importance are Chesil Beach and Slapton Sands, which enclose the large natural lagoons of The Fleet and Slapton Ley respectively. Dawlish Warren is a significant sand dune structure, located in the Exe Estuary at the mouth of the river. Potential areas of known landfills are also present.
Air and Climatic Factors	The long term effects of rising sea levels, increased storminess, increased wave heights and changes in weather patterns 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 22 Transitional and Coastal Waterbodies, 94 River Waterbodies, 1 Lake Waterbody and 15 Groundwater Bodies. There are over 70 designated bathing waters in the SMP areas. These all have the potential to be affected by SMP policies and are considered further in the WFD Assessment in Appendix K.
Landscape	The coast is composed predominantly of sea cliffs, punctuated by estuaries, rias, cobble beaches, isolated stacks, raised beaches and lagoons. 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 Dorset is internationally renowned for the rock strata exposed along the cliffs and coastal landforms such as Lulworth Cove, Durdle Door and Chesil Beach. Other landscape types include highly developed urban centres and

SEA Receptor described in the Environmental Assessment of Plans and Programmes Regulations SI 2004 1633	**Environmental Features**
	undeveloped agricultural land, much of which exhibits ancient (Medieval) field patterns. The high value of the landscape in the SMP area (with the exception of Portland) is recognised by the designation of five Areas of Outstanding Natural Beauty designated to conserve and enhance the natural beauty of their landscape qualities, four Heritage Coasts and the 'Jurassic Coast' WHS.
Cultural Heritage, including architectural and archaeological heritage	The Cornwall and West Devon Mining WHS falls within the SMP area and gives recognition to the historic landscape and buildings associated with the copper and tin mining. In addition, the SMP area contains a complex array of statutory historic buildings (e.g. 184 Scheduled Monuments, Listed Buildings), 26 Registered Parks and Gardens, non-statutory buildings and find spots, historic settlements, maritime archaeology (e.g. over 500 wreck sites), 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 Portland, Weymouth, Bridport, Lyme Regis, Seaton, Sidmouth, Budleigh Salterton, Exmouth, Exeter, Dawlish, Newton Abbot, Teignmouth, Shaldon, Torquay, Paignton, Brixham, Dartmouth, Kingsbridge, Salcombe, Saltash, Torpoint and Plymouth, 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, fossil collecting, bird watching and rock climbing. Water sports are also a popular pursuit.

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. 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 2006[5]) and described in Section 11, are based on the SEA receptors described in the EU SEA Directive (2001/42/EC).

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.

Table 5.1 SEA Objectives

	Objective	Features covered by the objective
Social	To avoid loss of property due to erosion and/or manage risk of flooding to people and property[6] (Population and human health)	Houses Community
	To avoid loss due to erosion of, and	Key vulnerable community facilities (e.g. surgeries,

[5] Defra (2006): *Shoreline Management Plan Guidance Volumes 1 and 2*
[6] Reference to flooding or erosion will be removed where not applicable

	Objective	Features covered by the objective
	manage risk of flooding to, key community, recreational and amenity facilities[6] (Population and human health)	hospitals, aged persons homes, schools, shops, churches, libraries etc) Key amenity facilities (e.g. public open space, car parks etc) Key recreational facilities (e.g. bathing beaches, swimming pools, Country Parks, Castles and Forts) Access to community/amenity facilities *Other than in exceptional circumstances, Public Rights of Way (e.g. the South West Coast Path National Trail) will not be considered in the detailed policy appraisal*
Economic	To avoid loss due to erosion of, and manage risk of flooding to, industrial, commercial and economic assets and activities[6] (Population, material assets)	Shops, offices, businesses, factories, warehouses, golf courses, areas identified for regeneration, nursery grounds, caravan parks, stone and mineral extraction sites, military establishments and others key areas of employment
	To minimise the impact of policies on marine operations and activities (Material assets)	Ports and harbours, Boatyards Moorings, Yacht and Sailing Clubs. Lifeboats, Ferry terminals Coastguard, lifeboat and lifeguard Access to the sea and navigation
	To ensure critical road and rail linkages are maintained (Material assets)	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, wind turbines, landfills, power stations, sub-stations Access for emergency services
Environmental	***To support natural processes and maintain visibility of geological exposures throughout internationally and nationally designated Earth Heritage sites*** (Geology and Soils)	World Heritage Site Geopark Geological SSSIs
	To support natural processes and maintain the integrity of internationally designated nature conservation sites and the favourable condition of their interest features (Flora, fauna and biodiversity)	SPAs, SACs (to include Marine SACs) and Ramsar Sites
	To avoid adverse impacts on, conserve and, where practical, enhance the designated interest of nationally designated nature conservation sites. (Flora, fauna and biodiversity)	SSSIs, NNRs, Areas of Special Protection
	To avoid adverse impacts on, conserve and, where practical, enhance the designated interest of locally designated conservation sites (Flora, fauna and biodiversity, geology)	Statutory LNRs Non-statutory wildlife sites RSPB reserves County Wildlife Trust reserves RIGS There is also a generic **statutory** duty (NERC Act 2006) to have regard for the conservation of biodiversity, which applies to all public bodies and which extends beyond designated sites.
	To prevent pollution from contaminated sources (Geology and soils, water)	Known and historic landfill sites (www.environment-agency.gov.uk), anecdotal evidence of disused mines and potentially contaminated land, bathing water, surface and ground water

	Objective	Features covered by the objective
		The objectives of the Water Framework Directive were also considered as part of this SEA objective.
	To avoid loss of scheduled and other internationally and nationally important heritage assets and features. (Cultural heritage)	World Heritage Sites Scheduled Monuments Registered Parks and Gardens Listed Buildings Marine Wreck Sites Built Conservation Areas Non-designated historic and archaeological sites and landscapes that have been identified by archaeologists as nationally important
	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. (Landscape)	Areas of Outstanding Natural Beauty (AONB) - The South Devon AONB Management Plan policy seeks to respond positively to the challenges of coastal change and sea level rise by planning for the future; and to consider natural processes and "soft defences" in long term coastline management wherever appropriate, accompanied by the realignment of coastal infrastructure to more sustainable locations where there is space to accommodate it". Heritage Coast
	To avoid loss due to erosion of and/or manage risk of flooding to agricultural land[6] (Population, soils)	Grades 1 – 3A Farmland
	To ensure MoD ranges remain operational. (Population, material assets)	Ministry of Defence ranges and land

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 three 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 include Natural England, who provide guidance on nature conservation, English Heritage, who provide guidance on heritage issues, the National Trust as a key landowner and Dorset County Council (WHS team Earth Sciences Manager). 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.

I.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.

I.6.4 Consultation Responses

A range of consultation responses have been received during the development of the SMP and SEA. A summary of the key responses received during consultation on the draft SMP and SEA is provided below: -

- Requirement for an Appropriate Assessment, Water Framework Directive Assessment, Non-technical Summary and Action Plan
- Opportunity to contribute to delivery of UK BAP targets
- Need to consider non-designated historic environment
- Need to consider full economic value of tourism and infrastructure
- Changes to policy options and policy unit boundaries
- Erosion rates may be overstated or over simplistic
- The strategy needs to be compatible with the objectives of others' plans
- Need to consider compensation for any farmland lost due to the SMP
- Need a clear boundary between Catchment Flood Management Plans (CFMPs) and SMPs
- Need to deliver consistent messages between the SMP documents and documents of others
- Numerous specific queries raised relating to particular policy units
- Need to understand how to manage change

Table 6.1 Summary of Stakeholder Strategy

Stage of Plan Preparation	Activity	Purpose of stakeholder involvement	Stakeholders involved	Method of involvement
Stage 1: SMP Scope (SEA Baseline and Scoping)	Initial Stakeholder contact	• Inform interested parties that an SMP and SEA is being prepared (on behalf of Defra and relevant local authorities) • Segregate the interested parties into two groups (Elected Members and Stakeholders – this included general public) • Request baseline environmental information from interested parties • Gather views on issues relating to the SMP coast	• Elected Members • Stakeholders	Letter, Questionnaire and Information Leaflet (different letters sent to different groups) Follow-up reminder letters, including one specifically to parish councils
	Initial Elected Members and Key Stakeholders Forum (KSF) held	• Introduce the SMP and SEA process • Request baseline environmental information from interested parties • Gather views on the features and issues relating to the SMP coast	• Elected Members • Key Stakeholders	A series of seven meetings in total were held along the SMP coast at which power point presentation and an open discussion forum were held. These KSFs were open to anyone who wanted to attend,
Stage 2: Assessments to support policy (Draft Issues and Objectives Tables – SEA Objectives)	Second Key Stakeholders and Elected Members Forum – Draft Issues and Objectives Table	EMF and KSF members asked to: • Check that all relevant environmental issues have been included • Review the features identified • Check that the benefits identified are correct and that we have included all beneficiaries • Check that the SEA objectives are a good representation of the requirements of the beneficiaries	• Elected Members • Key Stakeholders	Draft Issues and Objectives Table sent as part of briefing note by email and/or post Two follow-up meetings with power point presentations and open discussion forum. Due to the focussed nature of these events, these KSFs were restricted to inviting only those stakeholders who had already been engaged with and registered with the SMP process at that point in time. Two separate meetings with Heritage and Natural Environment professionals were held to discuss specific issues relating to the natural environment and heritage assets along both the Devon and Dorset coasts.

Stage of Plan Preparation	Activity	Purpose of stakeholder involvement	Stakeholders involved	Method of involvement
Stage 3: Policy Development (and Option Assessment)	Third Elected Members and Key Stakeholders Forum	EMF and KSF members were presented with the policy options to be tested as part of the policy appraisal. The objective of the forums were to establish: • The vision(s) of the various stakeholders for the whole SMP shoreline over each epoch • Any 'overriding drivers' for directing future policy, and specific future policy options that the stakeholders wish to see tested • Agree the benefits • Areas of agreement and conflict i.e. main flood and erosion risks • Potential scope for compromise and acceptance of future change	• Elected Members • Key Stakeholders	A series of six meetings were held in total along the SMP coast. Each meeting involved a formal presentation followed by open discussion forums. These KSFs were open to anyone who wanted to attend,
Stage 4: Public Examination	Public Consultation	• To make elected members and stakeholders aware of the draft plan • To provide stakeholders with opportunities for support and objection and moving to resolve differences	• Elected Members • Wider public	Distribution of summary leaflet and SMP document made available for viewing via www.sdadcag.org. A series of 5 public exhibitions along the SMP coast. This was preceded by a meeting with Elected Members to explain and discuss the preferred policies.
Stage 5: Finalise SMP	Final Elected Members Forum	• Review output from public examination and theme the responses • Produce a Consultation Report on these findings • Meet with CSG to discuss the nature of feedback (amending the plan / policies if need be) • Meet with EMF to discuss and agree the Final Plan (amend the plan / policies if need be) • Draft and agree Action Plan • 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	• Elected Members	Proposed changes to draft plan, Consultation Report and Action Plan reviewed and agreed by CSG. Revised final Plan produced and outcomes relayed to the EMF to begin process of adoption of the Plan by each authority.

Stage of Plan Preparation	Activity	Purpose of stakeholder involvement	Stakeholders involved	Method of involvement
Stage 6: SMP and SEA Dissemination	General Publication	• Disseminate to Local Authorities, Natural England, English Heritage, the Environment Agency and Defra • Update the SMP website: www.sdadcag.org • Inform stakeholders of the final plan including the SEA	• Wider public	Hard copies and CDs. Information available to download in PDF format at www.sdadcag.org. Summary leaflets disseminated at Local Authorities discretion.

I.7 Options Appraisal

I.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 2.3.4.

Following the principles of 'Making Space for Water', the methodology initially appraised a policy of no active intervention 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 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.

I.7.1.2 Identification and Review of Alternative Policy Scenarios

Four generic options were considered as part of the policy plan and these are listed in Table 7.1. The shoreline management policies considered are those defined by Defra (2006).

Table 7.1 SMP Policy Options

Hold the line	Maintain or upgrade the level of protection provided by defences.
Advance the line	Build new defences seaward of the existing defence line.
Managed realignment	Allowing retreat of the shoreline, with management to control or limit movement
No active intervention	A decision not to invest in providing or maintaining defences.

A 'with present management' policy was also assessed during the development of the SMP. This policy assumes that the present management practices will be continued indefinitely, regardless of economic or technical constraints.

Further details of these policy options are provided in Section 2.5 of the main document.

Appendix F 'Scenario Testing' presents the results of the initial consideration of the generic policies if they were applied over all three epochs at each location along the coastline.

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 South Devon and Dorset SMP, a 'string' of SMP policy options over a discrete stretch of coastline were defined using the findings of **Appendix F.**

These policy scenarios identify the policy combinations (over the three epochs) taken forward for detailed consideration, and identifies why the alternatives have not been considered.

Up to a maximum of three initial 'policy scenarios' were developed for appraisal against the environmental features identified along the coastline. Therefore for each policy scenario to be appraised, draft policy units

were identified, and for each policy unit one of the four SMP2 policy options was assigned to each of the three epochs 0-20 years (short-term), 20-50 years (medium-term) and 50-100 years (long-term).

Appendix F identifies the environmental impacts of each of the alternative scenarios 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 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**.

I.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 7.2.

Table 7.2 Potential generic implications of each SMP option

SMP option	Potential positive impacts	Potential negative impacts
Hold the Line (HTL)	• 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	• 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

SMP option	Potential positive impacts	Potential negative impacts
	features/sites • Protection of potential sources of contamination	
Advance the Line (ATL)	• Provision of additional space for communities • Protection of communities and infrastructure from coastal flooding/erosion • Protection of habitat landward of original defences • Protection of freshwater resources (e.g. abstractions an boreholes) • Protection of material assets located behind defences • Protection of recreational,, cultural and historical assets landward of the defences • Protection of potential sources of contamination	• 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 • Uncertainty of effects • Reduced visual amenity and change in landscape
Managed Realignment (MR)	• Landward migration of coastal habitat under rising sea levels to realigned defence • Creation of wetland habitat in line with UKBAP and local BAP targets • 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	• 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 features • Uncertainty of effects
No active intervention (NAI)	• Landward migration of coastal habitats under rising sea levels • Promotion or continuation of natural coastal processes • Potential discovery of unknown	• Uncontrolled flood/erosion risk • Uncertainty of effects and time for adaptation • Increased risk of inundation to landward habitats under rising

SMP option	Potential positive impacts	Potential negative impacts
	archaeology • Maintenance of geological exposures and earth heritage features	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, 194 individual Policy Units have been defined and 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 180 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).

I.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
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. Protection is predominantly focussed upon larger conurbations, where the highest level of benefit is achieved. However, some isolated properties, caravan sites, holiday centres and urban areas including Ringstead, Hive Beach (Burton Bradstock), East Beach (West Bay), Seatown, Charmouth, Branscombe, Torcross and Beesands may be affected by flooding/erosion, as policies leading to a more 'natural' shoreline in the long-term have been identified. 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 90 residential and commercial properties. This compares to the no active intervention baseline, when potential erosion losses of up to 580 residential and commercial properties could occur. By year 2055, residential and commercial property losses as a result of coastal erosion could total 140 and 150, with cumulative losses of between 410 and 430 houses by the year 2105. This compares to the no active intervention baseline, when cumulative house losses could be up to 700 by 2055, and over 1,150 by 2105, i.e. the preferred policies deliver coastal erosion protection to over 700 'at risk' residential and commercial properties over the next 100 years. These figures relate to losses through coastal erosion only. As parts of the SMP frontage are very low lying, overtopping, overflowing/breaching of defences, even where flood defences are maintained, could lead to flooding of over 8,300 residential properties and over 3,200 businesses at risk from flood damage. 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 realignment at some of these locations. This could allow for relocation or mitigation measures to be implemented should there be the mechanisms to do so.	Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities. The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* 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.
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 (e.g. Weymouth, West Bay, Lyme Regis, Sidmouth, Exmouth, Dawlish, Teignmouth and Torbay) 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. 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.	Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities. The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* 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.
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. Protection is predominantly focussed upon larger conurbations and towns, 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.	Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities. The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* 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.
To minimise the impact of policies on marine operations and activities *(Material assets)*	The proposed SMP policies are unlikely to affect marine activities and in many areas will protect proposed or new maritime developments such as the National Sailing Academy facilities at Osprey Quay.	Consider implications of development in tidal floodplains or in coastal areas subject to erosion in consultation with the Local Authorities. The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* 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.
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. 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. Some re-routing of major infrastructure will be required in the longer term under this SMP. While the preferred policy for many areas is to hold the line in the long term, there may be a detrimental impact on some infrastructure, where it will become increasingly technically difficult to retain coastal frontages.	The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* 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.
To ensure critical services remain operational *(Material assets)*	For much of the South Devon and Dorset coastline the preferred policy is to maintain existing defences where economically viable in the long term. This will help to 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.	The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* and other development 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.
To support- natural	The most significant threat to the internationally and nationally designated Earth heritage sites is the construction of artificial structures along the coast that would affect	The WHS Management Plan 2009 - 2014: Draft for Consultation

SEA Environmental Objective	Cumulative effects across the whole plan area (sum of Policy Unit impacts)	Interaction of SMP with relevant Plans and Programmes
processes and maintain visibility of geological exposures throughout internationally and nationally designated Earth Heritage sites *(Flora, fauna and biodiversity)*	the natural processes of erosion or obscure the exposed geology, and lead to a loss of fossils (World Heritage Site (WHS) Management Plan 2009 - 2014: Draft for Consultation (March 31st March to June 9th 2009)). 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 geomorphological and 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.	(March 31st March to June 9th 2009) supports the geologically related SEA objective of the SMP and the SMP therefore seeks to adhere to the WHS management objectives wherever possible.
To support natural processes and maintain the integrity of internationally designated nature conservation sites and the favourable condition of their interest features *(Flora, fauna and biodiversity)*	The Habitats Regulations Assessment has concluded that there will be adverse effects on four European sites (Exe Estuary SPA, and Ramsar site, Plymouth Sound and Estuaries SAC, Tamar Estuaries Complex SPA and Dawlish Warren SAC) and an uncertain effect on three European sites (Chesil Beach and the Fleet SAC, Sidmouth to West Bay SAC and Isle of Portland to Studland Cliffs SAC); the scale of these effects at this stage is unknown. In most cases, predicted adverse effects will be as a result of continued coastal squeeze against existing defences, resulting in the progressive loss of habitats and their associated species as a result of sea level rise against coastal defences. In some areas, these effects may be reduced through the implementation of mitigation measures. However, it cannot be conclusively ascertained at this stage that adverse effects can be avoided and this will have to be examined in detail at strategy and/or scheme level. For example, along parts of the SMP frontage, such as at Chesil Beach, the shingle beaches are designated under international legislation for their conservation interests and have associated biodiversity targets, which include that dynamic processes be allowed to occur and that the vegetated shingle be conserved. Both of these targets will be met by the preferred policies, which allow the shingle beach to function largely naturally. However, there may be some habitat losses associated with sea level rise as the frontage reacts to increasing pressure, for example, as Chesil Beach rolls-back into The Fleet causing narrowing of the lagoon and loss of designated habitat. There also remains uncertainty about the potential effects of holding the line in some policy units on vegetated cliff habitats in short sections of the frontage and this will be largely dependent on the extent that a 'hold the line' policy reduces or prevents erosion of the cliff face. There is also the potential that existing up-drift defences may increase erosion of the cliff face in adjacent down-drift sections beyond natural rates, which would conflict with conservation objectives and potentially cause an adverse effect. Again, it cannot be ascertained at this stage that adverse effects can be avoided and this will have to be examined at strategy and/or scheme level. A case for Imperative Reasons of Overriding Public Interest (IROPI) has been set out (using the Environment Agency Appendix 20 template to enable adoption of the SMP policies notwithstanding the assessment of adverse effect on site integrity. The reasons include a need to address a serious risk to human health and public safety (uncontrolled flood and erosion risks to large residential populations) and where failure of defences would have unacceptable social and/or economic consequences (including the loss of/or risk to residential properties, businesses, tourism, important infrastructure/services and many assets of national historic and cultural heritage importance). Careful management of the shoreline between Durlston Head and Rame 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.	Several Catchment Flood Management Plans (e.g. the East Devon, Exe, South Devon, River Tamar and West Dorset CFMPs) 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. In addition, the conservation objectives and favourable conditions outlined in the Management Plans (e.g. Exe Estuary and Plymouth Sound and Estuaries) for the European sites will be considered in conjunction with SMP policy implemented. 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.
To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites. *(Flora, fauna and biodiversity)*	Along parts of the SMP frontage, such as at Slapton Sands, the shingle beaches are designated under international legislation for their conservation interests and have associated biodiversity targets, which include that dynamic processes be allowed to occur and that the vegetated shingle be conserved. Both these targets will be met by the preferred policies, which allow the shingle beach to function largely naturally, although limited intervention will occur to repair storm damage for a period of time such that road access continues to be provided along the crest of the beach until such time as an alternative route is developed. Along other parts of the SMP frontage, some nationally designated interest features may be affected or lost due to sea level rise and coastal squeeze (e.g. at Portland Harbour Shore) against either fixed defences or the cliffs and in other areas, will result in the protection of some designated grassland habitats. 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 Durlston Head and Rame 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.	Several Catchment Flood Management Plans (e.g. the East Devon, Exe, South Devon, River Tamar and West Dorset CFMPs) and three Estuary Management Plans (e.g. Axe Estuary, Erme Estuary and Yealm Estuary) 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. 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.
To avoid adverse impacts on, conserve and where practical enhance the designated interest of locally designated conservation sites *(Flora, fauna and*	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 habitat while in other areas, it may result in habitat creation. Careful management of the shoreline between Durlston Head and Rame 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.	Several Catchment Flood Management Plans (e.g. the East Devon, Exe, South Devon, River Tamar and West Dorset CFMPs) and three Estuary Management Plans (e.g. Axe Estuary, Erme Estuary and Yealm Estuary) 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.

SEA Environmental Objective	Cumulative effects across the whole plan area (sum of Policy Unit impacts)	Interaction of SMP with relevant Plans and Programmes
biodiversity, geology)		
To prevent pollution from contaminated sources *(Geology and soils, water)*	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. 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.	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. The South West Regional Spatial Strategy *(revoked as of 6th July 2010)* and Local development documents must ensure that the requirements of PPS25 are fully implemented to ensure no pollution to coastal/estuarine waters.
To avoid loss of scheduled and other internationally and nationally important heritage assets and features. *(Cultural heritage)*	There are a wide range of heritage 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: • Scheduled Monuments including Sandsfoot Castle in Weymouth; • Small areas of Registered Parks and Gardens e.g.. Encombe, Lulworth Castle, Rousdon, Connaught, Overbecks, Langdon Court, Flete, Mount Edgcumbe; • Grades I and II Listed Buildings; and • Potentially significant nationally important non-designated archaeological assets (these will be considered further at scheme level) It should be noted that most of the Listed Buildings and Scheduled Monuments within the South Devon and Dorset SMP area are located within the towns and cities along the coast, the majority of which would be protected, under the preferred policies. Where heritage assets would be protected through implementation of the SMP, opportunities should be sought at scheme level to improve the condition of heritage sites and features, where appropriate. However, some listed buildings 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.	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. The SMP seeks to adhere to objectives of the Cornwall and West Devon WHS Management Plan 2005 - 2010 wherever possible.
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. *(Landscape)*	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. A policy of no active intervention would help to conserve and enhance the quality of the landscape and seascape of the AONB and Jurassic Coast World Heritage Site. However, it is recognised that loss of some coastal landmarks or well-known landscape features, to which the AONB designation refers, 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.	The SMP policies will be developed and implemented in accordance with the policies of the AONB Management Plans and policies of the Heritage Coast plan.
To avoid loss due to erosion of and/or manage risk of flooding to agricultural land *(Population, soils)*	Agriculture and grazing represents a share of the local economy and along the coast there are various grades of agricultural land. Along much of the coastline, these are in the undeveloped stretches between the towns and within the estuaries, where there is insufficient economic justification for maintaining or constructing defences, which would also be technically inappropriate. Under the preferred policies there could be loss or damage to approximately 2,800 hectares of agricultural land which will remain at risk of flooding, even where low-level defences are present, by year 2105.	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.
To ensure MoD ranges remain operational. *(Population, material assets)*	The MoD ranges lie generally within undeveloped stretches of coastline and therefore where there is insufficient justification for maintaining or constructing defences. Consequently the preferred SMP policies may result in the erosion of small areas of ranges in the short to long-term. Such minimal losses are unlikely to affect the operational nature of the MoD ranges.	The aspirations of the MoD for the ranges within the study area is currently unknown.

I.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 seven European sites, as follows:

- Exe Estuary SPA and Ramsar site;
- Plymouth Sound and Estuaries SAC;
- Tamar Estuaries Complex SPA;
- Dawlish Warren SAC in the short-term;
- Chesil Beach and the Fleet SAC
- Sidmouth to West Bay SAC
- Isle of Portland to Studland Cliffs SAC

In most cases, the predicted adverse effects would be as a result of coastal squeeze, resulting in the progressive loss of habitats and their associated species as a result of sea level rise against coastal defences. There also remains uncertainty about the potential effects of holding the line in some policy units on internationally vegetated cliff habitats and this will be largely dependent on the extent that a 'hold the line' policy reduces erosion of the cliff face.

Where potentially adverse effects have been identified, a study will be undertaken as soon as possible to quantify habitat losses and gains and this action will be carried forward by the SMP Action Plan. Compensatory intertidal and dune habitat will be sought through the Regional Habitat Creation Programme (RHCP) to retain the ecological functionality of the European sites (where possible). Compensatory for loss of cliff exposure will be provided by restoration (i.e. removal of defences) within the designated site.

I.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.

It should also be noted that documenting the SEA process undertaken (i.e. retrospectively) after completion of the SMP may introduce some uncertainty and difficulties in ensuring clarity in the SEA decision-making process.

I.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 will be circulated to all stakeholders for consultation and comment. The plan may be modified in light of comments received from consultees before it is formally adopted. 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-East and 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 policy options, so that a less detrimental impact will tend to be an alternative policy option. 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.

I.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 on the SEA receptors along with appropriate mitigation measures to be implemented to ameliorate any adverse impacts.

A level of significance has been assigned to each identified effect in the short, medium and long term epochs.

Notes on application: Prediction of Significant Effects

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.

Within the Biodiversity, Flora and Fauna receptor category an additional assessment has been made as to whether obligations are met relating to European Sites under the Habitats Regulations, to link the Habitats Regulations Assessment with the SEA. The following criteria have been used to assess these sites: -

HR Adverse Effect – This option fails to meet an objective arising from obligations under the Habitat Regulations (i.e. cannot avoid adverse impacts on a European Site) and therefore a potential adverse effect is assumed.

HR No Adverse Effect – This option would comply with obligations under the Habitat Regulations and not result in an adverse effect on the integrity of a European Site.

HR Uncertain – It is uncertain as to whether this option would comply with obligations under the Habitat Regulations and not result in an adverse effect on the integrity of a European Site.

ANNEX I.I – ENVIRONMENTAL ASSESSMENT OF PREFERRED POLICY OPTION

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

Policy Unit (Number and Description)		Scenario	Preferred Policy			SEA Appraisal of Preferred Policy Scenarios (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	Earth Heritage, Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population and Human Health
POLICY SCENARIO AREA: DURLSTON HEAD TO WHITE NOTHE												
5g01	**Durlston Head to St Alban's Head**	A, B & C	NAI	NAI	NAI	No impact on Isle of Portland to Studland Cliffs SAC where there is no change to the existing management regime, and impacts (e.g. permanent loss of some grassland habitats due to erosion and flooding) are likely to be localised with limited impact on the overall status of the site **ST O** **MT O** **LT O** **HR No Adverse Effect – Isle of Portland to Studland Cliffs SAC** Continued long-term loss of unimproved neutral and calcareous grassland within South Dorset Coast SSSI (biological) from erosion and flooding **ST XX** **MT XX** **LT XX**	Continuation of natural processes is key to the integrity of the geological interest features of South Dorset Coast Site of Special Scientific Interest (SSSI) and Dorset and East Devon World Heritage Site (WHS), therefore the preferred policies in this coastal section would continue to maintain the geological exposures of these features **ST √√√** **MT √√√** **LT √√√**	No known impacts on water quality. **ST O** **MT O** **LT O**	Minor change in landscape due to increased erosion and flooding **ST O** **MT O** **LT O** Potential for deteriorating structures to become unsightly **ST X** **MT XX** **LT XX**	Potential partial loss of up to 4 Scheduled Monuments (SMs) due to erosion over lifetime of SMP: Alum Works SM at Kimmeridge Bay, Bowl Barrow SM on Emmetts Hill, Flowers Barrow SM and The Warren Field System SM. **ST X** **MT XX** **LT XXX** Permanent loss of small area of Encombe and Lulworth Castle Registered Parks and Gardens **ST X** **MT X** **LT X**	Permanent loss of grades 3, 4 and 5 agricultural land due to erosion and flooding **ST XX** **MT XX** **LT XX**	Permanent loss of some community, recreational and amenity facilities in Kimmeridge Bay due to erosion (with associated health impacts) and at the eastern end of Lulworth Cove (dependent on location of managed realignment) due to erosion and flooding **ST X** **MT XX** **LT XXX**
5g02	**St Alban's Head to Kimmeridge Bay**	A, B & C	NAI	NAI	NAI							
5g03	**Kimmeridge Bay (defended length)**	B	NAI	NAI	NAI							
5g04	**Kimmeridge Bay (undefended) to Worbarrow Tout**	A, B & C	NAI	NAI	NAI							
5g05	**Worbarrow Tout to Lulworth Cove (East)**	A, B & C	NAI	NAI	NAI							
5g06	**Lulworth Cove (undefended)**	A, B & C	NAI	NAI	NAI							
5g07	**Lulworth Cove (defended length)**	B	NAI	NAI	NAI							
5g08	**Lulworth Cove (West) to White Nothe**	A, B & C	NAI	NAI	NAI							
Mitigation Measures/Environmental Opportunities						The potential to realign the South Dorset Coast SSSI (biological) boundary landward will be explored together with sites to replace net losses of grassland within SSSI. Opportunities may exist to improve the favourable condition of the designated terrestrial habitats through changes	No mitigation required	Works in areas selected for managed realignment will be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	In areas of managed realignment, consideration will be given to the removal of existing deteriorating defences to retain the visual amenity of the area.	Mitigation to minimise the adverse impact on Encombe and Lulworth Castle Registered Park and Garden may include relocating or redesigning the layout of this Registered Park and Garden. The likely impacts of	No mitigation has been identified for losses of agricultural land.	Depending on the facilities that may be affected by flooding or erosion and the location of any managed realignment, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or

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						in their grazing/scrub management etc in areas of proposed managed realignment.				the preferred SMP policy option on the SMs will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording.		mitigating the loss of private properties. Undertake consultation with key stakeholders alongside private defence owners in developing either future defence scheme or adaptation measures to ensure an acceptable approach is developed. Develop an adaptation plan where private defences may not be maintained in the future.

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POLICY SCENARIO AREA: WHITE NOTHE TO REDCLIFF POINT												
5g09	**White Nothe to Ringstead Bay (defended length east)**	A, B & C	NAI	NAI	NAI	A HTL policy at 5g10 may adversely affect the Isle of Portland to Studland Cliffs SAC in the short-term through the loss of vegetated cliff habitat, but in the medium to long-term, no active intervention will be beneficial to the management of the site. **ST** X **MT** √ **LT** √√ HR Uncertain - Isle of Portland to Studland Cliffs SAC No 'adverse effect' on Poole Bay to Lyme Bay	Continuation of natural processes is key to the integrity of the geological interest features of South Dorset Coast Site of Special Scientific Interest (SSSI) and Dorset and East Devon World Heritage Site (WHS), therefore the preferred policies in this coastal section would continue to maintain the geological exposures of these features **ST** √√√ **MT** √√√ **LT** √√√	No known impacts on water quality. **ST** O **MT** O **LT** O	Potential change in landscape through increased flooding and erosion. **ST** X **MT** X **LT** X Potential for deteriorating structures to become unsightly **ST** X **MT** XX **LT** XX	Potential partial loss of Fishpond Scheduled Monument and Medieval Settlement Scheduled Monument at West Ringstead in medium to long-term due to erosion **ST** O **MT** XX **LT** XXX	Loss of sewage works due to erosion in the short to long-term **ST** XXX **MT** XXX **LT** XXX Some loss of grades 3 and 4 agricultural land due to erosion and flooding **ST** XX **MT** XX **LT** XX	Loss of some properties and land at Osmington Mills on Mills Road **ST** X **MT** XX **LT** XXX Potential loss of parts of caravan site by cliff erosion and some flooding (though the latter process to a lesser degree) **ST** X **MT** XX **LT** XX Loss of isolated
5g10	**Ringstead Bay (defended length)**	A	HTL	NAI	NAI							
5g11	**Ringstead Bay (defended length west) to Redcliff Point**	A, B & C	NAI	NAI	NAI							

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						Reefs cSAC. There is no evidence to suggest that this policy is affecting this feature at present **HR No Adverse Effect - Poole Bay to Lyme Bay Reefs cSAC** Potential long-term loss of some designated limestone grassland habitats at base of cliff within South Dorset Coast SSSI (biological) through flooding and erosion *h*owever, majority of grassland currently lost is due to inappropriate scrub control. **ST** X **MT** X **LT** X						properties along coastal stretch **ST** XXX **MT** XXX **LT** XXX Increased loss of land occupied by caravans at Ringstead Loss of some properties at Burning Cliff due to erosion in short to long-term. **ST** XXX **MT** XXX **LT** XXX Osmington Bay Holiday Centre at increased risk of erosion. **ST** X **MT** X **LT** XX
Mitigation Measures/Environmental Opportunities						Requirement to replace losses of grassland within SSSI. Compensation for loss of cliff exposure will be provided by restoration (i.e. removal of defences) within or close to the designated sites, wherever possible. Opportunities may exist to improve the favourable condition of the designated terrestrial habitats through scrub control e.g. at Ringstead Bay (defended length) in the short-term.	No mitigation required	Holding the line at Ringstead Bay (defended) in short-term should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	In areas of managed realignment, the existing deteriorating defences could be removed to retain the visual amenity of the area.	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation will take the form of excavation and recording.	No mitigation has been identified for loss of the sewage works though there may be the potential to relocate it inland. Consider reconstructing the sewage works and associated infrastructure elsewhere, provide new pipelines to an alternative sewage works or provide cess pits. No mitigation has been identified for losses of agricultural land.	Depending on the facilities that may be affected by flooding or erosion, mitigation may take the form of relocating the assets further inland Engage key stakeholders and the local community to develop an adaptation plan for the medium to long term change in policy at Ringstead, and plan for coastal change at Osmington. Develop a Beach Management Plan for Ringstead to establish monitoring and maintenance

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											requirements of the defences and to take account of the amenity value of the beach.

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POLICY SCENARIO AREA: REDCLIFF POINT TO PORTLAND BILL												
5g12	**Redcliff Point to Bowleaze Cove (Gabions)**	A, B & C	NAI	NAI	NAI	HTL in some units may affect the integrity of the vegetated cliff habitats within the Isle of Portland to Studland Cliffs SAC and will depend upon the implementation of the policy. **ST XX?** **MT XX?** **LT XX?** **HR Uncertain - Isle of Portland to Studland Cliffs SAC** HTL may result in coastal squeeze of some intertidal habitats within the Chesil Beach and The Fleet SAC, and the impact of policy implementation is uncertain at this stage. **HR Uncertain – Chesil Beach and The Fleet SAC** No 'adverse effect' on reef habitat within the Poole Bay to Lyme Bay Reefs cSAC. There is no evidence to suggest that this policy is affecting this	Continuation of natural processes is key to the integrity of the geological interest features of South Dorset Coast, Portland Harbour Shore and Isle of Portland Sites of Special Scientific Interest (SSSI) and Dorset and East Devon World Heritage Site (WHS), therefore the preferred policies in this coastal section would continue to maintain the geological exposures of these features **ST √√√** **MT √√√** **LT √√√** HTL in some areas will affect the Outstanding Universal Features of the Jurassic Coast WHS and conflict with the objectives of its Management Plan. **ST XXX** **MT XXX**	Potential impacts on water quality due to long-term flooding of landfill site – see soils and geology. Protecting Weymouth could potentially lead to impoundment of Weymouth Harbour, which could have permanent effects on the Wey transitional waterbody, thus failing WFD objectives 2 and 3. **ST XXX** **MT XXX** **LT XXX** The maintenance and upgrade of defences in 5g21 and 5g22 could lead to the loss of intertidal habitats due to coastal squeeze and thus failure to meet WFD objective 2. **ST XXX**	Potential change in landscape through increased flooding and erosion (depends on location of managed realignment where it occurs). **ST X** **MT X** **LT X** Potential for deteriorating structures to become unsightly **ST X** **MT XX** **LT XX**	Protection of Nothe Fort, Tram and Searchlight Battery Scheduled Monument (SM) at The Nothe, Portland Castle SM and Sandsfoot Castle SM from flooding/erosion **ST √√√** **MT √√√** **LT √√√** Potential loss of a small area of Mesolithic Sites Near Culver Well SM from erosion **ST X** **MT X** **LT X** Listed buildings along the Portland Harbour Breakwaters protected. **ST √√√**	Protection of the new Portland Gas storage facilities in the Upper Osprey Quay site. **ST √√√** **MT √√√** **LT √√√** Loss of grades 3 and 4 agricultural land due to erosion and flooding in some areas. **ST XX** **MT XX** **LT XX** Protection of A353, Furzy Cliff/Overcombe, Greenhill and Osprey Quay from the western side of Chiswell and from Portland Harbour side from flooding in short, medium and long-term. **ST √√√** **MT √√√** **LT √√√**	Loss of isolated properties along coastal stretch **ST XXX** **MT XXX** **LT XXX** Waterside Holiday Park at Bowleaze protected from erosion in the short to medium-term. Potential partial loss of Waterside Holiday Park at Bowleaze due to erosion in long-term. **ST √√** **MT √√** **LT XX** Protection of properties and facilities along Preston Beach and at Rodwell **ST √√√** **MT √√√** **LT √√√**
5g13	**Bowleaze Cove (Gabions) to Furzy Cliff**	B	HTL	MR	HTL							
5g14	**Furzy Cliff**	A & B	NAI	NAI	NAI							
5g15	**Furzy Cliff to Preston Beach (Rock Groyne)**	B	HTL	HTL	MR							
5g16	**Preston Beach (Rock Groyne) to Weymouth (Stone Pier) (includes Weymouth Harbour)**	A, B & C	HTL	HTL	HTL							
5g17	**Weymouth (Stone Pier) to Portland Harbour (North Breakwater)**	A, B & C	HTL	HTL	HTL							
5g18	**Bincleaves to Castle Cove**		MR	MR	MR							
5g19	**Castle Cove to Castle Cove Sailing Centre**		HTL	HTL	HTL							
5g20	**Castle Cove Sailing Centre to Dowman Place**		MR	MR	HTL							
5g21	**Small Mouth to Osprey Quay (Portland Harbour)**	A, B & C	HTL	HTL	HTL							

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5g22	Osprey Quay (Portland Harbour) to Kings Pier	A, B & C	HTL	HTL	HTL	feature at present. HR No Adverse Effect – Poole Bay to Lyme Bay Reefs cSAC Potential reduction in extent of some intertidal habitat (e.g. at Portland Harbour Shore SSSI) due to coastal squeeze from HTL at Nothe, adjacent to the Ferry Terminal and around Portland Harbour. **ST** X **MT** XX **LT** XX Protection of some designated maritime grassland habitat within South Dorset Coast, Nicodemus Heights, Portland Harbour Shore and Isle of Portland SSSIs (biological) **ST** √ **MT** √ **LT** √√ Protection of reedbeds and freshwater habitats at Radipole Lake SSSI and nature reserve lake from saline flooding **ST** √√ **MT** √√ **LT** √√ The reedbed and brackish grassland at Lodmoor Nature Reserve and SSSI would continue to be protected from flood and erosion risk in the short to medium-term. Managed realignment in the long-	**LT** XXX Protection from flooding of Pottery Lane disused landfill site in short to long-term **ST** √√√ **MT** √√√ **LT** √√√ Potential flooding of Lodmoor disused landfill site in long-term (depending on location of managed realignment). **ST** O **MT** O **LT** XXX	**MT** XXX **LT** XXX		**MT** √√√ **LT** √√√	Flooding of A354 **ST** XXX **MT** XXX **LT** XXX	Loss of South-West Coastal Path in some areas. **ST** X **MT** X **LT** X Properties and facilities within Preston and Overcombe protected from erosion and flooding. **ST** √√√ **MT** √√√ **LT** √√√ Protection of large areas of the majority of the town of Weymouth (including residential and commercial districts in the town centre) from flooding in the short, medium and long-term. **ST** √√√ **MT** √√√ **LT** √√√ Railway terminus protected from flooding. **ST** √√√ **MT** √√√ **LT** √√√ 9 property assets (excluding caravans), key infrastructure (including a rising sewage main in Old Castle Road) in Portland Harbour at
5g23	Kings Pier to Portland Bill	A, B & C	NAI	NAI	NAI							

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					term (e.g. improved tidal exchange across the seawall) and capacity to drain flood waters is likely to be beneficial. **ST** √√ **MT** √√ **LT** √√√						risk of erosion and flooding. **ST** XX **MT** XXX **LT** XXX
Mitigation Measures/Environmental Opportunities					Designated habitat losses and gains will be quantified at strategy level and, compensatory habitat sought through the RHCP for intertidal habitat losses within the Chesil Beach and the Fleet SAC. Compensation for loss of cliff exposure will be provided by restoration (i.e. removal of defences) within or close to the designated sites, wherever possible. Detailed investigation at scheme level of likely impacts of defence works on the European sites. Some habitat loss may be mitigated by the creation of new habitat through managed realignment, but it may not be possible to retain the ecological functionality of the habitats. Progressive implementation of managed realignment policies in these units and elsewhere, would reduce the potential effects of sudden changes to water flow and geomorphology.	Further consideration of Lodmoor disused landfill site would be required at project level if a policy of managed realignment is implemented. The hazard that the landfill site poses to people and the environment from leaching or the release of contaminated materials will need to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very expensive) may be necessary.	See mitigation for 'earth heritage, soils and geology'. Holding the line along much of this section in short-term should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets. Where holding the line could lead to failure of WFD objectives 2 and 3 at 5g16 and 5g17, mitigation could include the provision of fish passes, the control and operation of potential structures and the sensitive design of the scheme.	In areas of managed realignment, existing deteriorating defences could be removed to retain the visual amenity of the area.	The likely impacts of the preferred SMP policy option on the Scheduled Monument will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording. Where heritage assets are protected, opportunities should be sought at scheme level to improve the condition of the sites, where appropriate.	No mitigation has been identified for losses of agricultural land. Review emergency response plan to prepare for large flood events that cause significant overwash/ overtopping and/or breaching/ roll-back of Chesil Beach that could impact on the A354 Portland Beach Road.	Consideration should be given to relocating Waterside Holiday Park and the South West Coastal Path further inland. As part of a strategy study, develop a Beach Management Plan for Weymouth Beach, to ensure future beach management is adequate to address flood risk whilst acknowledging the significant amenity use of this beach.

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POLICY SCENARIO AREA: PORTLAND BILL TO THORNCOMBE BEACON												
6a01	Portland Bill to West Weare	A, B & C	NAI	NAI	NAI	The potential for HTL policies to cause adverse effects on the Chesil Beach and Fleet SAC due to coastal squeeze of intertidal habitat is uncertain at this stage. Where a HTL policy applies (notably 6a02), there is potential for habitat loss (i.e. annual vegetation of drift lines, perennial vegetation, atlantic salt meadows etc) within Chesil Beach and the Fleet SAC. **HR Uncertain – Chesil Beach and The Fleet SAC** As Chesil Beach continues its natural trend of landward migration, the net area of the Fleet lagoon is likely to reduce (except between Chiswell to Chesil Beach). Natural flushing is likely to occur and there is the possibility of it becoming an enclosed lagoon during a significant storm event. However, this would not be a result of SMP policy. **ST** O **MT** O **LT** O Minimal loss of cliff top limestone grassland habitats associated with the Isle of Portland and West Dorset Coast SSSI as a result of erosion and natural processes in this section. However, there is	Continuation of natural processes is key to the integrity of the geological interest features of Chesil and The Fleet SSSI, Burton Bradstock SSSI, and West Cove SSSI, therefore the preferred policies in this coastal section would continue to maintain and potentially enhance the geological exposures of these features **ST** √√√ **MT** √√√ **LT** √√√ Continuation of natural processes is key to the integrity of the Outstanding Universal Value of the properties of Dorset and East Devon World Heritage Site (WHS), therefore NAI and MR in this coastal section would continue to maintain and potentially enhance the geological exposures of these features. **ST** √√√ **MT** √√√ **LT** √√√ HTL at East Beach will affect the Outstanding Universal Features of the Jurassic Coast WHS and conflict with	Potential impacts on water quality due to long-term flooding of landfill site – see soils and geology. MR/NAI 6a03 and 6a04 to allow natural evolution could potentially lead to a reduction in size or the loss of the Fleet Waterbody, as a result of a large/significant storm event. Although this is a natural process, it is regarded as a failure of WFD objective 3. 6a04 is also considered to fail WFD objective 2. **ST** XXX **MT** XXX **LT** XXX	Potential change in landscape character of the Dorset AONB due to increased erosion and flooding **ST** O **MT** O **LT** O Potential for deteriorating structures to become unsightly in the long-term **ST** X **MT** XX **LT** XX	Potential loss of St Peter's Abbey Scheduled Monument (SM) due to flooding in the short, medium and long-term. **ST** XX **MT** XX **LT** XXX	Permanent loss of predominantly grade 3 agricultural land due to erosion and flooding with a higher loss of land between West Bay and Thorncombe Beacon **ST** X **MT** XX **LT** XX Protection of A354 access road and Chiswell from flooding on Isle of Portland in short, medium and long-term **ST** √√√ **MT** √√√ **LT** √√√ Potential loss or damage to B3157 at West Bay and minor link road, which runs along the back of West Bay Harbour due to flooding in short, medium and long-term **ST** XXX **MT** XXX **LT** XXX Risk of flooding or erosion at West Wears in short, medium and long-term **ST** X **MT** XX	Potential permanent loss of some community, recreational and amenity facilities including parts of the South West Coastal Path and café at Hive Beach. **ST** X **MT** XX **LT** XX Flooding of Abbotsbury Swannery (a tourist attraction) in short, medium and long-term. **ST** X **MT** XX **LT** XX A number of beach car parks are potentially at risk. **ST** X **MT** XX **LT** XX A couple of properties at erosion risk at Burton Cliff/ Bradstock and associated access road in short, medium and long-term **ST** XX **MT** XX **LT** XXX
6a02	Chiswell to Chesil Beach	A, B & C	HTL	HTL	HTL							
6a03	Chesil Beach (to Wyke Narrows)	A, B & C	MR	MR	MR							
6a04	Chesil Beach and The Fleet	A, B & C	NAI	NAI	NAI							
6a05	Abbotsbury to Cogden Beach	A, B & C	NAI	NAI	NAI							
6a06	Cogden Beach to Hive Beach (Burton Bradstock)	A, B & C	NAI	NAI	NAI							
6a07	Hive Beach (Burton Bradstock)	B	NAI	NAI	NAI							
6a08	Burton Cliff	A, B & C	NAI	NAI	NAI							
6a09	Freshwater Beach	A	MR	MR	MR							
6a10	East Cliff (West Bay)	A, B & C	NAI	NAI	NAI							
6a11	West Bay (East Beach to eastern pier)	B	HTL	HTL	MR							
6a12	West Bay (West Beach from eastern pier) to West Cliff (East) (includes West Bay Harbour)	A, B & C	HTL	HTL	HTL							
6a13	West Cliff (East) to Thorncombe Beacon	A, B & C	NAI	NAI	NAI							

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					potential for negative effects where erosion is a result of HTL updrift in any of the policy units. **ST** X **MT** X **LT** XX The continuation of natural landslip and sediment processes is important to the Sidmouth to West Bay SAC and would continue to occur as at present within the majority of policy units. However, a 'hold the line' has the potential to result in the loss of vegetated sea cliffs in some areas. **HR Uncertain – Sidmouth to West Bay SAC**	the objectives of its Management Plan in the short and medium term. **ST** XXX **MT** XXX **LT** √√√ Potential flooding of disused Old Brewery landfill site in short, medium and long-term. **ST** XXX **MT** XXX **LT** XXX				**LT** XXX Likely natural roll-back of Chesil Beach may be inhibited by gabions in some areas in short, medium and long-term **ST** X **MT** X **LT** X Osprey Quay protected from flooding. **ST** √ **MT** √√ **LT** √√√	Flood risk to small area of East Fleet Caravan Site. **ST** X **MT** X **LT** XX The facilities at West Bay (both East Beach and West Beach) would be protected from flooding and erosion and the existing defences are likely to be maintained to protect the properties **ST** √ **MT** √√ **LT** √√√ Flood-risk to Freshwater (including Freshwater Beach Caravan Park) and associated areas due to blocked river outfall and back up flooding). Erosion and flood-risk to lower sections of caravan park (depending upon extent of managed realignment) **ST** X **MT** X **LT** XX It is unlikely that link roads would be lost prior to properties.
Mitigation Measures/Environmental Opportunities					Designated habitat losses and gains will be quantified at strategy level and, compensatory habitat	Further consideration of the disused Old Brewery landfill site would be required at	See mitigation for 'earth heritage, soils and geology'.	In areas of managed realignment, existing deteriorating defences could be	The likely impact of the preferred SMP policy option on this Scheduled	No mitigation has been identified for losses of agricultural	Depending on the facilities that will be affected by flooding or erosion and the

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					sought through the RHCP for intertidal habitat losses within the Chesil Beach and the Fleet SAC. Should further human intervention be required at 6a02, detailed modelling and investigation will be undertaken at the project level to identify adverse effects on Chesil Beach and the Fleet SAC. Compensation for loss of cliff exposure will be provided by restoration (i.e. removal of defences) within or close to the designated sites, wherever possible. Opportunities exist to improve the favourable condition of the designated terrestrial habitats through changes in their grazing/scrub management etc in areas of proposed managed realignment.	project level if a policy of NAI is implemented. The hazard that the landfill site poses to people and the environment from leaching or the release of contaminated materials would need to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very expensive) may be necessary.	Works to hold the line or realign in this coastal process unit should be implemented so as to not adversely impact on the water quality status of the coastal waters.	removed to retain the visual amenity of the area. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	Monument will be investigated further at strategy or scheme level. Where avoidance of this Scheduled Monument from flooding/erosion is not possible, mitigation may take the form of excavation and recording.	land.	location of any managed realignment, mitigation may take the form of relocating the assets further inland (particularly car parking facilities and the South West Coastal Path). There may be no provision for compensating or mitigating the loss of private properties. Review and update the Chesil (Portland to Small Mouth) Beach Management Plan and East and Freshwater Beach Management Plan following completion of a strategy study Develop a Beach Management Plan for West Beach, West Bay to ensure that there is a robust plan for managing the beach and associated hard defence structures such that defence provision continues to be provided at the required standard. In areas where the policy is for no active intervention, engage and work with communities to develop adaptation plans for adjusting to future coastal change. This should include a plan for managing and mitigating the potential impacts to West

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												Bexington from NAI policy, to both properties and the car park.

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POLICY SCENARIO AREA: THORNCOMBE BEACON TO BEER HEAD												
6a14	Thorncombe Beacon to Seatown (East)	A, B & C	NAI	NAI	NAI	Minimal loss of cliff top limestone grassland habitats associated with the West Dorset Coast and Axmouth to Lyme Regis Undercliffs and Sidmouth to Beer Coast SSSIs (biological) and Axmouth to Lyme Regis Undercliffs NNR to erosion and natural processes. However, there is potential for negative effects where erosion is a result of HTL updrift in any of the policy units. **ST** X **MT** X **LT** XX The continuation of natural landslip and sediment processes is important to Sidmouth to West Bay SAC and NAI in most areas would therefore enhance this SAC. However, a 'hold the line' has the potential to result in the loss of vegetated sea cliffs in some	Continuation of natural processes is key to the integrity of the geological interest features of Dorset and East Devon World Heritage Site, West Dorset Coast and Axmouth to Lyme Regis Undercliffs, River Axe and Sidmouth to Beer Coast SSSIs. Generally, the preferred policies in this coastal section would continue to maintain the geological exposures of these features **ST** √√√ **MT** √√√ **LT** √√√ However, in some policy units, (e.g. 6a20) HTL will affect the Outstanding Universal Features of the Jurassic Coast WHS and conflict with the objectives of its Management Plan.	Potential impacts on water quality due to medium and long-term flooding of landfill site – see soils and geology.	Minor change in landscape character of Dorset AONB due to increased erosion and flooding. **ST** O **MT** O **LT** O Potential for deteriorating structures to become unsightly. **ST** X **MT** XX **LT** XX	Potential partial loss of up to 1 Scheduled Monument (SM) due to erosion. **ST** X **MT** XX **LT** XXX Flood and erosion risk to Grade 1 and Grade 2 listed buildings. **ST** X **MT** XX **LT** XXX Potential permanent loss of approximately 0.5km length of frontage of Rousdon Registered Park and Garden **ST** X **MT** XX **LT** XX Protection of Scheduled	Permanent loss of grades 3 and 4 agricultural land due to erosion and flooding. **ST** X **MT** XX **LT** XX Flood risk and coastal erosion of A35, the Street, and A3052 in the short to long-term. **ST** X **MT** XX **LT** XXX Erosion of Esplanade and Lyme Bay frontage and flooding of B3172 Harbour Road in Seaton in short to long-term **ST** X **MT** XX **LT** XXX	Short-term protection of and potential medium to long-term permanent loss of some properties adjacent to Seahill Lane (Seaton) and Lower/Higher Sea Lane/Old Lyme Road (Charmouth), tourist facilities and the car park in Seatown and Charmouth from erosion and flood-risk. **ST** √√√ **MT** XXX **LT** XXX Protection of tourist facilities along the seafront, marine parade and properties along the seafront and at East Cliff/Church Street in Lyme Regis from flooding and erosion. **ST** √ **MT** √√
6a15	Seatown	A	HTL	NAI	NAI							
6a16	Seatown (West) to Golden Cap	A, B & C	NAI	NAI	NAI							
6a17	Golden Cap to Charmouth (East)	A, B & C	NAI	NAI	NAI							
6a18	Charmouth	B	HTL	MR	MR							
6a19	Charmouth (West) to East Cliff (Lyme Regis)	A, B & C	NAI	NAI	NAI							
6a20	East Cliff (Lyme Regis) to Broad Ledge (Lyme Regis)	A	HTL	HTL	MR							
6a21	Broad Ledge (Lyme Regis) to The Cobb (Lyme Regis)	A, B & C	HTL	HTL	HTL							
6a22	Monmouth Beach	B	HTL	MR	HTL							
6a23	Monmouth Beach to Seven Rock Point (undefended)	A, B & C	NAI	NAI	NAI							
6a24	Seven Rock Point to Haven Cliff (West)	A, B & C	NAI	NAI	NAI							

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6a25	**Axe Estuary (Mouth Breakwater to Axmouth North)**	A, B & C	HTL	HTL	HTL	areas. HR Uncertain – Sidmouth to West Bay SAC	**ST** XXX **MT** XXX **LT** XXX Holding the line in some areas (e.g. at Seatown) has the potential to affect the condition of these features. **ST** XXX **MT** XXX **LT** XXX Disused landfill sites in Charmouth protected from flooding in short-term but potential impacts on these sites in medium to long-term -depending on location of managed realignment. **ST** √√√ **MT** XXX **LT** XXX Gas holder site in Lyme Regis protected from erosion in short, medium and long-term. **ST** √√ **MT** √√ **LT** √√√ Refuse tip east of Spittles Lane at risk of erosion in short, medium and long - term. **ST** XXX **MT** XXX **LT** XXX			Monument in Lyme Regis. **ST** √ **MT** √√ **LT** √√√ Possible impact on Roman harbour, wrecks and palaeo-environmental deposits in the Axe Estuary through managed realignment. **ST** X **MT** XX **LT** XX		**LT** √√ Holding the line (e.g. at Lyme Regis) has the potential to *adversely impact* on the tourism industry associated with fossil hunting by either restriction of access to the cliff face in a small and localised area or as a result of the exposure of the cliff face being locally restricted. **ST** X **MT** XX **LT** XX Loss of some areas of the South West Coastal Path due to erosion. **ST** X **MT** X **LT** X Flooding of Fore Street and Sea Hill in Beer and flood/erosion-risk to community facilities (e.g. tramway) and properties including the World Heritage Centre in Beer in short to long-term. **ST** X **MT** XX **LT** XX
6a26	**Axe Estuary (Axmouth North to Seaton North)**	A, B & C	MR	MR	MR							
6a27	**Axe Estuary (Seaton East)**	A, B & C	HTL	HTL	HTL							
6a28	**Axe Estuary (Spit)**	A, B & C	NAI	NAI	NAI							
6a29	**Axe Estuary (Spit) to Seaton (West)**	A, B & C	HTL	HTL	HTL							
6a30	**Seaton (West) to Seaton Hole**	B	HTL	MR	MR							
6a31	**Seaton Hole to Beer**	A, B & C	NAI	NAI	NAI							
6a32	**Beer**	C	HTL	HTL	HTL							
6a33	**Beer to Beer Head**	A, B & C	NAI	NAI	NAI							

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Mitigation Measures/Environmental Opportunities						Compensation for loss of cliff exposure will be provided by restoration (i.e. removal of defences) within or close to the designated sites, wherever possible. Detailed investigation required at scheme level to understand the likely impacts of holding the line on the Sidmouth to West Bay SAC. Habitat creation potential within the Axe Estuary should be considered through the Regional Habitat Creation Programme to deliver benefits to the wider region. Opportunities may exist to improve the favourable condition of the designated terrestrial habitats through changes in their grazing/scrub management etc in areas of proposed managed realignment.	Further consideration of the disused landfill sites in Charmouth and the refuse tip would be required at project level. The hazard that the landfill sites poses to people and the environment from leaching or the release of contaminated materials would need to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very expensive) may be necessary. Any defence works should avoid obscuring the cliff face and be sympathetically designed to avoid damage to the geological features of the earth heritage sites.	See mitigation for 'earth heritage, soils and geology'. Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	In areas of managed realignment, existing deteriorating defences could be removed to retain the visual amenity of the area. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording. Where heritage assets are protected (e.g. SM in Lyme Regis), opportunities should be sought at scheme level to improve the condition of the sites, where appropriate.	No mitigation has been identified for losses of agricultural land. Consideration should be given to relocating infrastructure affected by flooding and erosion further inland.	Depending on the facilities that may be affected by flooding or erosion and the location of any managed realignment, mitigation may take the form of relocating the assets further inland. As there may be no provision for compensating or mitigating the loss of private properties, in areas where the policy is for no active intervention or managed realignment to occur in the future, engage and work with communities to begin to develop adaptation plans for adjusting to future coastal change. Undertake a Strategy Study for Lyme Regis, Charmouth, Axe Estuary, Seaton and Beer to determine the best approaches for delivering the policies and develop a programme of works. Carry out a detailed investigation of managed realignment options in the Axe Estuary to consider ongoing navigation needs and preservation of the Seaton Tram Way Develop a Beach Management Plan for

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												the central part of Lyme Regis

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POLICY SCENARIO AREA: BEER HEAD TO OTTERTON LEDGE												
6a34	**Beer Head to Salcombe Hill**	A & B	NAI	NAI	NAI	The continuation of natural landslip and sediment processes is important to Sidmouth to West Bay SAC. A policy of HTL in 6a36 has the potential to increase erosion rates to the east and affect the integrity of cliff habitats within the adjacent Sidmouth to West Bay SAC but will depend upon policy implementation. **HR Uncertain – Sidmouth to West Bay SAC** There is potential for the loss of a small area of the Sidmouth to Beer Coast SSSI due to erosion, however natural processes are likely to be beneficial to this feature. **ST** √ **MT** √√ **LT** √√	Continuation of natural processes is key to the integrity of the geological interest features of Dorset and East Devon World Heritage Site (excludes Sidmouth) and Sidmouth to Beer Coast, Ladram Bay to Sidmouth and Beer Quarry and Caves SSSIs. Continuation of natural erosive processes is important for maintaining Ladram Bay SSSI. NAI would allow natural processes to continue unhindered. **ST** √√√ **MT** √√√ **LT** √√√ HTL in some areas through hard defence structures (e.g. at Sidmouth) has the potential to negatively affect these features.	No known impacts on water quality. **ST** O **MT** O **LT** O	Minor change in landscape character of East Devon AONB due to increased erosion and flooding. **ST** O **MT** O **LT** O	Flood and erosion risk to Grade 2 and 3 listed buildings. **ST** X **MT** XX **LT** XXX Potential partial loss of up to 3 Scheduled Monuments (SM) in the short to long-term: Barry Cliff Camp SM, Prehistoric Field System SM and High Peak Camp SM in Sidmouth. **ST** XX **MT** XXX **LT** XXX Potential partial loss of Connaught Registered Park and Garden due to flooding and erosion in the short to long-term. **ST** X	Permanent loss of grades 3 and 4 agricultural land due to erosion and flooding in medium to long-term **ST** X **MT** XX **LT** XX	Potential for the loss of some isolated cliff top properties at Chit Rocks near Sidmouth and at Branscombe (e.g. hotel) due to coastal erosion and flooding. **ST** XXX **MT** XXX **LT** XXX Potential for the loss of the caravan park, tourist car park and beach access at Branscombe Beach due to flooding. **ST** X **MT** XX **LT** XX Potential for the loss of properties at Ladram Bay Caravan park due to flooding and erosion in the medium to long-term. **ST** O **MT** XX
6a35	**River Sid and East Sidmouth**	Variation	MR	MR	MR							
6a36	**Sidmouth**	A & B	HTL	HTL	HTL							
6a37	**Chit Rocks to Big Picket Rock**	A & B	NAI	NAI	NAI							
6a38	**Big Picket Rock to Otterton Ledge**	A & B	NAI	NAI	NAI							

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							ST XXX MT XXX LT XXX			MT XX LT XX		LT XX Protection of Sidmouth including road linkages (The Esplanade) that runs along Sidmouth's sea frontage east to west, in the short to long-term. ST √√√ MT √√√ LT √√√
Mitigation Measures/Environmental Opportunities						Compensation for loss of cliff exposure will be provided by restoration (i.e. removal of defences) within or close to the designated sites, wherever possible. Detailed investigation required at scheme level to understand the likely impacts of holding the line on the Sidmouth to West Bay SAC. Opportunities exist to improve the favourable condition of the designated terrestrial habitats through changes in their grazing/scrub management etc in areas where holding the line (Sidmouth) or in the River Sid policy unit.	Any defence works should avoid obscuring the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.	Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	No mitigation identified. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation will take the form of excavation and recording.	No mitigation has been identified for losses of agricultural land.	Depending on the facilities that may be affected by flooding or erosion and the location of any managed realignment, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Undertake a Strategy Study for Sidmouth to determine the best approach to delivering the policies and develop a programme of works. In all other areas (e.g. excluding Sidmouth), engage and work with communities to develop adaptation plans for adjusting to future coastal change.

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POLICY SCENARIO AREA: OTTERTON LEDGE TO STRAIGHT POINT												
6a39	**Otter Estuary (Otterton Ledge to Budleigh Salterton East)**	A	MR	MR	MR	Potential change in intertidal habitat at the mouth of Otter Estuary SSSI with a likely increase in intertidal habitat resulting from managed realignment and/or NAI policies. **ST** √ **MT** √√ **LT** √√ Potential loss of intertidal habitat due to erosion and scouring from changes in coastal processes. **ST** X **MT** XX **LT** XX	Continuation of natural processes is key to the integrity of the geological interest features and therefore in most areas along this frontage, the preferred policy would allow natural erosion to continue, thus maintaining the World Heritage Site and its geological SSSIs. **ST** √√√ **MT** √√√ **LT** √√√ A Hold the Line policy at Budleigh Salterton has the potential to adversely impact earth heritage features. **ST** XXX **MT** XXX **LT** XXX One disused landfill site at risk of flooding in the Otter Estuary in the short, medium and long-term. **ST** X **MT** XX **LT** XXX	Potential impacts on water quality due to potential short, medium and long-term flooding of landfill site – see soils and geology.	Minor changes in landscape character of East Devon AONB – *could be beneficial or adverse impact.* **ST** O **MT** O **LT** O	Flood and erosion risk to some Grade 2 Listed buildings. **ST** X **MT** XX **LT** XXX Possible damage to or loss of palaeo-environmental deposits in the Otter Estuary through managed realignment or through changes resulting in movement of the spit at Budleigh Salterton in a north-easterly direction (which could impact earlier harbour structures and palaeo-environmental evidence, if present) **ST** X **MT** XX **LT** XX	Loss of land between Budleigh and Straight point, potentially of recreational value in medium and long-term. **ST** O **MT** XX **LT** XX Loss of a small portion of grade 3 and 4 agricultural land. **ST** X **MT** XX **LT** XX Small area of Straight Point MoD ranges potentially lost due to erosion in short, medium and long-term. **ST** X **MT** XX **LT** XX	Protection of properties and road linkages in Budleigh Salterton from erosion and flooding, including those surrounding the seafront in short to long-term. **ST** √√√ **MT** √√√ **LT** √√√ Potential for the loss of tourist facilities particularly Devon Cliffs Holiday park, a small area of East Devon Golf Course and parts of the South-West Coastal Path in the short, medium and long-term. **ST** X **MT** XX **LT** XX
6a40	**Otter Estuary (Spit)**	A	NAI	NAI	NAI							
6a41	**Budleigh Salterton**	A	HTL	HTL	HTL							
6a42	**Budleigh Salterton (West) to Straight Point**	A	NAI	NAI	NAI							
Mitigation Measures/Environmental Opportunities						Requirement to replace losses of intertidal habitat. Habitat creation potential within the Otter Estuary should be sought through the Regional Habitat Creation Programme to deliver benefits to the wider region.	Further consideration of the current state of the disused landfill site will be required at project level. The hazard that the landfill site poses to people and the environment from leaching or the release of contaminated	See mitigation for 'earth heritage, soils and geology'. Works in areas of the Otter Estuary selected for managed realignment should be implemented so as to not adversely	No mitigation identified. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	The likely impacts of the preferred SMP policy option on these Listed Buildings will be investigated further at strategy or scheme level. Where avoidance of the features from	No mitigation has been identified for losses of agricultural land. Develop an adaptation plan for the MoD's loss of land.	Depending on the facilities that may be affected by flooding or erosion and the location of any managed realignment, mitigation may take the form of relocating the assets further

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							materials would need to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very expensive) may be necessary. Any defence works should avoid obscuring the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.	impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.		flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording.		inland.

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POLICY SCENARIO AREA: STRAIGHT POINT TO HOLCOMBE												
6a43	Straight Point to Orcombe Rocks	A & C	NAI	NAI	NAI	HTL policies in the short term at the east distal end, central gabion defences and west hard defences will be damaging to the dune habitats of Dawlish Warren SAC (plus SSSI, NNR and LNR). **HR Adverse Effect (short term only) – Dawlish Warren SAC** Protection of terrestrial designated interest features at Exe Estuary SPA, Ramsar site, SSSI and RSPB Reserve from flooding/erosion in short-term. However, it is considered that the HTL	Holding the line along much of this coastal section (except between Straight Point and Orcombe Rocks and at Dawlish Warren) has the potential to affect the WHS and geological SSSIs. **ST** XXX **MT** XXX **LT** XXX Protection of disused Imperial Recreation Ground landfill site on the Exe Estuary from flooding.	HTL along the majority of the eastern and western side of the Exe Estuary to protect heavily populated areas could increase the frequency of tide-locking and subsequent water depth in the adjacent river waterbodies in response to climate change/sea level rise, thus potentially failing WFD objective 3. **ST** X **MT** XX **LT** XXX	Minor changes in landscape character of East Devon AONB. **ST** O **MT** O **LT** O	Protection of Powderham Registered Park and Garden from flooding. **ST** √ **MT** √√ **LT** √√ Protection of Grade 2 listed buildings from flooding or erosion predominantly in Exmouth, Lympstone and Topsham.	Protection of the railway connections: Coastline to South Exminster from flooding. **ST** √√ **MT** √√ **LT** √√√ Protection of the Commando Training Centre from flooding. **ST** √√ **MT** √√ **LT** √√√ Small area of Straight	Protection of property, commercial and economic assets and recreational facilities in Exmouth (e.g. around The Point, a marina, Queens Drive & the esplanade along the seafront), Topsham and Dawlish in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√√ Protection of most parts of Powderham from flooding/erosion including Powderham
6a44	Orcombe Rocks to Maer Rocks	A & C	HTL	HTL	HTL							
6a45	The Maer	A	HTL	MR	HTL							
6a46	Harbour View to Exmouth Pier	A & C	HTL	HTL	HTL							
6a47	Exmouth Spit	A & C	HTL	HTL	HTL							
6b01	Exe Estuary - Exmouth (west)	A & C	HTL	HTL	HTL							
6b02	Exe Estuary - Exmouth (west) to Lympstone	A & C	HTL	HTL	HTL							
6b03	Exe Estuary - Lympstone	A & C	HTL	HTL	HTL							
6b04	Exe Estuary - Nutwell Park	A & C	HTL	HTL	HTL							

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6b05	Exe Estuary - Lympstone Commando	A & C	HTL	HTL	HTL	policies identified in this SMP, in combination with other plans/programmes, have potential to adversely affect the integrity of this site in the long-term as a result of intertidal habitat loss due to coastal squeeze. **HR Adverse Effect – Exe Estuary SPA and Ramsar site** Potential loss of some terrestrial habitats but potential roll-back of sand dunes at The Maer LNR. **ST** √ **MT** √ **LT** √ Holding the line at Exmouth LNR will result in the loss of intertidal habitat due to coastal squeeze in the short, medium and long-term. **ST** X **MT** X **LT** X	**ST** √√√ **MT** √√√ **LT** √√√			**ST** √ **MT** √√ **LT** √√√ Managed realignment in the Exe Estuary (west) has the potential to impact on the medieval harbour at Le Turffe, canal (and hulks/fish traps) **ST** X **MT** XX **LT** XX Any plans for realignment at Dawlish Warren in the medium or long-term would have the potential to impact on pre-historic deposits and WWII features (dependent on selected policy and would be informed by the Exe Estuary Strategy). **ST** O **MT** XX **LT** XX	Point MoD ranges lost due to erosion. **ST** X **MT** X **LT** X Protection of the A376 at Exton and the A379 at Dawlish from flooding. **ST** √√ **MT** √√ **LT** √√√ Protection of infrastructure including a sewage works from flooding. **ST** √√ **MT** √√ **LT** √√√ Risk of flooding to some areas of agricultural land (e.g. between Clyst Bridge to the Railway, and north of Powderham) from managed realignment options in the short, medium or long-term. **ST** X **MT** XX **LT** XX Protection of the majority of grade 2 and 3 agricultural land **ST** √	yacht club, Deer park and castle in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√ Protection of properties along the seafront: facilities for tourists/economic/ commercial assets in Dawlish Warren from flooding and erosion in the short-term. **ST** √√√ **MT** √√√ **LT** √√√ Potential loss of parts of South West Coastal Path (e.g. between Straight Point and Orcombe Rocks and at Dawlish Warren) due to erosion. **ST** X **MT** X **LT** X People, properties and facilities at risk from erosion at the Devon Cliffs Holiday Park. **ST** X **MT** XX **LT** XXX Hotel facilities at risk from flooding/erosion near Dawlish Warren.
6b06	Exe Estuary - Exton	A & C	HTL	HTL	HTL							
6b07	Exe Estuary - Exton to Lower Clyst	A & C	HTL	HTL	HTL							
6b08	Exe Estuary - Lower Clyst	A & C	MR	MR	MR							
6b09	Exe Estuary - Topsham	A & C	HTL	HTL	HTL							
6b10	Exe Estuary - M5 (east) to St James' Weir	A & C	HTL	HTL	HTL							
6b11	Exe Estuary - Topsham Sludge beds	A & C	HTL	HTL	HTL							
6b12	Exe Estuary - St James' Weir to M5 (west)	A & C	HTL	HTL	HTL							
6b13	Exe Estuary - M5 (west) to Turf Lock	A & C	HTL	HTL	HTL							
6b14	Exe Estuary - Turf Lock to Powderham	A	HTL	MR	HTL							
6b15	Exe Estuary - Powderham (south)	A & C	HTL	HTL	HTL							
6b16	Exe Estuary - Starcross	A & C	HTL	HTL	HTL							
6b17	Exe Estuary - Cockwood	A & C	HTL	HTL	HTL							
6b18	Exe Estuary - Cockwood to The Warren	A & C	HTL	HTL	HTL							
6b19	Dawlish Warren (inner side)	A	NAI	A policy for medium and long-term epochs has not yet been determined, pending further discussions with NE and the development of the Exe Estuary Strategy								
6b20	Dawlish Warren –east distal end	A	HTL									
6b21	Dawlish Warren (Central - gabion defences)	A	HTL									
6b22	Dawlish Warren (West - hard defences)	A & C	HTL									
6b23	Langstone Rock to Coryton Cove	A & C	HTL	HTL	HTL							

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6b24	Coryton Cove to Holcombe	A & C	HTL	HTL	HTL						MT √√ LT √√	ST X MT XX LT XXX
Mitigation Measures/Environmental Opportunities						Designated habitat losses and gains will be quantified at strategy level and, compensatory habitat sought through the RHCP for losses of dune habitat within Dawlish Warren SAC (short-term) and intertidal habitat losses within the Exe Estuary SPA and Ramsar site. Requirement to replace losses of non-designated intertidal habitat due to coastal squeeze. The Exe Estuary Strategy will seek to find an acceptable solution for nature conservation at Dawlish Warren SAC in the medium-long-term and will identify both compensatory and replacement intertidal habitat creation sites. Progressive implementation of managed realignment policies would reduce the potential effects of sudden changes to water flow and geomorphology.	Any defence works should avoid obscuring the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.	Works in areas of medium/long-term managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters.	No mitigation identified. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	Where heritage assets are protected, opportunities should be sought at scheme level to improve the condition of the sites, where appropriate. The likely impacts of the preferred SMP policy option on some heritage features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation will take the form of excavation and recording.	No mitigation has been identified for losses of agricultural land.	Depending on the facilities that may be affected by flooding or erosion and the location of any managed realignment, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Undertake a study to investigate beach recharge works required to maintain Dawlish Warren and Exmouth Beach for the first epoch.

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POLICY SCENARIO AREA: HOLCOMBE TO HOPE'S NOSE												
6b25	Holcombe to Sprey Point	A, B & C	HTL	HTL	HTL	No adverse effect on Poole Bay to Lyme Bay Reefs cSAC as some caves are already exposed to coastal processes and there is no proposal to extend existing sea defences on seacaves. **HR No Adverse Effect – Poole Bay to Lyme Bay Reefs cSAC** NAI may affect some of the terrestrial habitats of the Hope's Nose to Walls Hill SSSI (biological). **ST** O **MT** O **LT** O	NAI along the majority of this coastal section would allow natural erosion to continue and would maintain the English Riviera Geopark and geological SSSIs. **ST** √ **MT** √√ **LT** √√ Holding the line between Petit Tor Point and Walls Hill would negatively affect the geological interest of the English Riviera and Babbacombe Cliffs SSSI. **ST** X **MT** XX **LT** XX One disused landfill site (Sladnor Park) potentially at risk of erosion at Maidencombe in the medium and long-term. **ST** O **MT** XXX **LT** XXX	Potential impacts on water quality due to potential medium and long-term erosion of landfill site – see soils and geology. HTL in the Teign Estuary to protect heavily populated areas could increase the frequency of tide-locking and subsequent water depth in the adjacent river waterbodies in response to climate change/sea level rise, thus potentially failing WFD objective 3. **ST** X **MT** XX **LT** XXX	Minor changes in landscape character may occur as a result of an eroding coastline where NAI is implemented and through works to hold the line at Oddicombe Beach **ST** O **MT** O **LT** O	Grade 2 listed buildings potentially at risk from flooding or erosion. **ST** X **MT** XX **LT** XXX One Protected Wreck may experience increased erosion if changes in sediment processes/tidal circulation prevail. Holding the line at Teignmouth has the potential to affect the designated wreck through a change in processes resulting from rising sea levels **ST** X **MT** XX **LT** XXX Potential loss due to erosion of the Prehistoric Field System Scheduled Monument (SM) at Walls Hill. **ST** X **MT** XX **LT** XXX	Protection of Teignmouth Harbour from flooding in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√√ Protection of the mainline Exeter to Plymouth railway at Teignmouth from potential flood-risk in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√√ Protection of the A381 in the Teign Estuary from flooding in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√√ The A379 and associated bridge would be protected from flooding/erosion in the short, medium and long term. **ST** √ **MT** √√ **LT** √√√ Grades 2, 3, 4 and 5 Agricultural land at risk of flooding/erosion in	Protection of residential and commercial properties and recreational facilities at Denn Spit to the centre of Teignmouth, along the Teign Estuary, at Newton Abbot, Torquay and in the northern parts of Shaldon from flooding/erosion in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√√ Potential loss of access to the seafront at Sprey Point **ST** X **MT** XX **LT** XX Oddicombe beach and associated tourism facilities protected from flooding/erosion in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√ Isolated properties at risk of erosion/flooding in the vicinity of Watcombe Head, Maidencombe and between Maidencombe Comb
6b26	Sprey Point	B	HTL	HTL	HTL							
6b27	Sprey Point to Teignmouth Pier	A, B & C	HTL	HTL	HTL							
6b28	Teignmouth Pier to The Point	A, B & C	HTL	HTL	HTL							
6b29	The Point	A, B & C	MR	MR	MR							
6b30	Teign Estuary - The Point to Teignmouth and Shaldon Bridge	A, B & C	HTL	HTL	HTL							
6b31	Teign Estuary - North Shore (Teignmouth and Shaldon Bridge to Passage House Hotel)	A, B & C	HTL	HTL	HTL							
6b32	Teign Estuary - Passage House Hotel to Kingsteignton Road Bridge	A & C	HTL	MR	MR							
6b33	Teign Estuary - Kingsteignton and Newton Abbot	A, B & C	HTL	HTL	HTL							
6b34	Teign Estuary - South Shore (Newton Abbot to Shaldon)	A & C	HTL	HTL	HTL							
6b35	Teign Estuary - Shaldon	A, B & C	HTL	HTL	HTL							
6b36	Shaldon (The Ness) to Maidencombe (North)	A, B & C	NAI	NAI	NAI							
6b37	Maidencombe	A & B	NAI	NAI	NAI							
6b38	Maidencombe (South) to Watcombe Head	A, B & C	NAI	NAI	NAI							

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6b39	Watcombe	A & B	NAI	NAI	NAI						some areas. ST X MT XX LT XX	and Shaldon. ST XXX MT XXX LT XXX South West Coast at Risk from flooding/erosion in some areas. ST X MT X LT X Potential risk to Watcombe beach, Anstey's Cove and Labrador Bay from flooding/erosion. ST X MT XX LT XX Impacts on golf courses unknown at this stage.
6b40	Watcombe to Petit Tor Point	A, B & C	NAI	NAI	NAI							
6b41	Petit Tor Point to Walls Hill	A, B & C	HTL	HTL	HTL							
6b42	Walls Hill	A, B & C	NAI	NAI	NAI							
6b43	Anstey's Cove	A & B	NAI	NAI	NAI							
6b44	Anstey's Cove to Hope's Nose	A, B & C	NAI	NAI	NAI							
Mitigation Measures/Environmental Opportunities						Losses of designated terrestrial habitats will be replaced wherever possible.	Further consideration of the current state of the disused landfill site will be required at project level. The hazard that the landfill site poses to people and the environment from leaching or the release of contaminated materials would need to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very expensive) may be necessary. Any defence works	See mitigation for 'earth heritage, soils and geology'. Works in areas of medium/long-term managed realignment will be implemented so as to not adversely impact on the water quality status of the coastal waters.	No mitigation required	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording.	No mitigation has been identified for losses of agricultural land. Works should be considered by Network Rail to upgrade the defences for the mainline railway to ensure adequate protection is provided in the future.	Depending on the facilities that may be affected by flooding or erosion and the location of any managed realignment, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Build in incremental adaptation to beach and defence management for

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							should avoid obscuring the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.					Teignmouth and other settlements within the Teign Estuary to manage risks from rising sea level in medium and long term. In areas where the policy is no active intervention or managed realignment, engage and work with communities to develop adaptation plans for adjusting to future coastal change.

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POLICY SCENARIO AREA: HOPE'S NOSE TO BERRY HEAD (TOR BAY)												
6b45	**Hope's Nose to Meadfoot Beach (East)**	A & B	NAI	NAI	NAI	Sea level rise may accelerate natural erosion resulting in the loss of cliff/ledge top grassland habitats at South Hams SAC and Hopes Nose to Wall's Hill SSSI. However, as this would not be a result of a change in SMP policy, it is not considered a significant effect in terms of the Habitats Regulations. **ST** O **MT** O **LT** O No adverse effect on partially submerged seacaves within Poole Bay to Lyme Bay Reefs cSAC	Continuation of natural processes is key to the integrity of the English Riviera Geopark, Daddyhole, Saltern Cove, Dyer's Quarry, Meadfoot Sea Road, New Cut Torquay and Roundham Head SSSIs therefore NAI in these areas would continue to maintain these features. **ST** √ **MT** √√ **LT** √√ However, holding the line in some areas e.g. at Meadfoot and Roundham Head has	Potential impacts on water quality due to potential medium and long-term realignment potentially affecting landfill sites – see soils and geology.	Minor changes in landscape character of South Devon AONB – *could be beneficial or adverse impact.* **ST** O **MT** O **LT** O	Protection of Princess Gardens and Royal Terrace Gardens Registered Park and Garden from flooding in short, medium and long-term. **ST** √ **MT** √√ **LT** √√ Protection of a large area of Torre Abbey and WW2 Battery Scheduled Monuments from flooding in short, medium and long-term.	Risk of flooding/ erosion to the A379 at Torquay north of the marina. **ST** X **MT** XX **LT** XXX	Protection of Torquay Harbour, Paignton (Torbay), Brixham, Brixham Harbour and associated industrial properties, and properties along the seafront in Brixham (Berryhead Road) from flooding in the short, medium and long-term. **ST** √ **MT** √√ **LT** √√√ Risk of flooding/erosion to properties along Paignton Seafront, to
6b46	**Meadfoot Beach**	A & B	HTL	HTL	HTL							
6b47	**Meadfoot Beach (West) to Beacon Cove**	A & B	NAI	NAI	NAI							
6b48	**Beacon Cove to Torre Abbey Sands (Torquay Harbour)**	A & B	HTL	HTL	HTL							
6b49	**Torre Abbey Sands**	A	HTL	HTL	HTL							
6b50	**Corbyn's Head**	A & B	NAI	NAI	NAI							
6b51	**Livermead Sands**	A & B	HTL	HTL	HTL							
6b52	**Livermead Head**	A & B	NAI	NAI	NAI							
6b53	**Hollicombe Beach**	A	HTL	HTL	HTL							
6b54	**Hollicombe Head**	A & B	NAI	NAI	NAI							

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6b55	Hollicombe Head to Roundham Head	A	HTL	HTL	HTL	as there is no requirement to extend existing defences on seacaves. **HR No Adverse Effect – Poole Bay to Lyme Bay Reefs cSAC** Holding the line (e.g. at Goodrington Sands) may result in a net change in the area of intertidal habitats at Saltern Cove SSSI, and increased risk of coastal squeeze due to the presence of a railway embankment **ST** X **MT** XX **LT** XX Some erosion of caves and sea cliffs to the east of Shoalstone Point at Berry Head to Sharkham Point SSSI and Berry Head NNR. Potential loss of some designated flora and fauna. **ST** X **MT** XX **LT** XX	the potential to adversely affect the geological features. **ST** X **MT** XX **LT** XX Two disused landfill sites protected from flooding in the short-term *(beneficial impact)* but at risk of flooding depending on location of managed realignment in the medium and long-term (*adverse impact)* **ST** √√√ **MT** XXX **LT** XXX			**ST** √√ **MT** √√√ **LT** √√√		the south of Goodrington Sands, and to some areas along the preserved Paignton to Broadsands railway in short, medium and long-term **ST** X **MT** XX **LT** XXX Loss of some tourist facilities due to erosion and flood risk. **ST** X **MT** XX **LT** XX
6b56	Goodrington Sands	B	HTL	HTL/MR	HTL							
6b57	Goodrington Sands to Broadsands	A & B	NAI	NAI	NAI							
6b58	Broadsands	B	HTL	MR	HTL							
6b59	Broadsands to Churston Cove (East)	A & B	NAI	NAI	NAI							
6b60	Churston Cove (East) to Shoalstone Point	A & B	HTL	HTL	HTL							
6b61	Shoalstone Point to Berry Head	A & B	NAI	NAI	NAI							
Mitigation Measures/Environmental Opportunities						Requirement to replace intertidal habitat lost due to coastal squeeze. Habitat creation potential within the Goodrington Sands and Broadsands units should be sought through the Regional Habitat Creation Programme to deliver benefits to the wider region. Ensure that any new defences in policy units 6b55, 6b58 and 6b60 are not extended to the	Further consideration of the current state of the disused landfill sites will be required at project level. The hazard that the landfill site poses to people and the environment from leaching or the release of contaminated materials would need to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very	See mitigation for 'earth heritage, soils and geology'. Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	No mitigation required. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	No mitigation required. Where heritage assets are protected, opportunities should be sought at scheme level to improve the condition of the sites, where appropriate.	Consideration should be given to relocating the A379 further inland.	Depending on the facilities that may be affected by flooding or erosion, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Undertake a Strategy Study for Tor Bay to determine the best

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						seacaves.	expensive) may be necessary. Any defence works should avoid obscuring the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.					approaches for delivering the policies and develop a programme of works. Build in incremental adaptation to beach and defence management for settlements around Tor Bay to manage risks from rising sea level in medium and long term.

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POLICY SCENARIO AREA: BERRY HEAD (TOR BAY) TO BLACKSTONE POINT												
6b62	**Berry Head to Sharkham Point**	A	NAI	NAI	NAI	Sea level rise may accelerate natural erosion resulting in the loss of cliff/ledge top grassland habitats at South Hams SAC and Froward Point SSSI. However, as this would not be a result of a change in SMP policy, it is not considered a significant effect in terms of the Habitats Regulations. **ST** O **MT** O **LT** O Continued erosion of caves and sea cliffs at Berry Head to Sharkham Point SSSI and Berry Head (Southern Redoubt) ASP. **ST** X	Continuation of natural processes is key to the integrity of the English Riviera Geopark therefore NAI between Berry Head and Sharkham Point would continue to maintain these features. **ST** √√√ **MT** √√√ **LT** √√√ Waterhead Creek disused landfill site at risk of flooding and Sharkham Point tip at risk of erosion in the medium and long-term. **ST** O **MT** XX **LT** XXX	Potential impacts on water quality due to a no active intervention policy potentially affecting landfill sites – see soils and geology. HTL in the Dart Estuary to protect heavily populated areas could increase the frequency of tide-locking and subsequent water depth in the adjacent river waterbodies in response to climate change/sea level rise, thus potentially failing WFD objective 3 **ST** X **MT** XX **LT** XXX	Minor changes in landscape character of South Devon. **ST** O **MT** O **LT** O	No loss of Scheduled Monuments or Registered Parks and Gardens. **ST** √√√ **MT** √√√ **LT** √√√	Protection of Kingswear Station, and the B3205 transport connections from flooding. **ST** √ **MT** √√ **LT** √√√ Limited loss of Grades 3 and 4 agricultural land from flooding/ erosion. **ST** X **MT** X **LT** X	Protection of South West Coast path from risk of flooding/erosion south of Sharkham Point. **ST** √ **MT** √ **LT** √ Protection of majority of Brixham from erosion. **ST** √ **MT** √√ **LT** √√√ Protection of people & properties in Dartmouth (including residential, commercial properties & Yacht Club), bordering the River Dart at
6b63	**Sharkham Point to Kingswear (South)**	A	NAI	NAI	NAI							
6b64	**Dart Estuary - Kingswear (South) to Waterhead Creek**	A	HTL	HTL	HTL							
6b65	**Dart Estuary - Waterhead Creek to Greenway Viaduct**	A	HTL/NAI	HTL/NAI	HTL/NAI							
6b66	**Dart Estuary - Greenway Viaduct to Totnes South (east bank)**	A	HTL/NAI	HTL/NAI	HTL/NAI							
6b67	**Dart Estuary - Totnes**	A	HTL	HTL	HTL							
6b68	**Dart Estuary - Totnes South (west bank) to Dartmouth (North)**	A	HTL/NAI	HTL/NAI	HTL/NAI							

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6b69	**Dart Estuary - Dartmouth (North) to Halftide Rock**	A	HTL	HTL	HTL	**MT** XX **LT** XX						Dittisham and of farms on the River Dart near Cornworthy from flooding. **ST** √ **MT** √√ **LT** √√√
6b70	**Dart Estuary - Halftide Rock to Blackstone Point**	A	HTL/NAI	HTL/NAI	HTL/NAI							Protection to people and property in Kingswear and at Crabbrock Point and Man Sands from flooding/erosion **ST** √√√ **MT** √√√ **LT** √√√ Potential loss of some properties due to erosion at St Marys Bay in medium to long-term. **ST** O **MT** XXX **LT** XXX Risk of flooding/erosion to cliff top properties at the western bank of the entrance to the River Dart Estuary. **ST** XXX **MT** XXX **LT** XXX
Mitigation Measures/Environmental Opportunities						Habitat losses and gains will be quantified at strategy level and, replacement habitat sought as appropriate.	Further consideration of the current state of the disused landfill site would be required at project level. The hazard that the landfill site poses to people and the environment from leaching or the release of contaminated materials would need	See mitigation for 'earth heritage, soils and geology'. Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the	No mitigation required. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	No mitigation required	No mitigation has been identified for losses of agricultural land.	There may be no provision for compensating or mitigating the loss of private properties. Engage organisations and general public to inform them of the potential future risks of flood and coastal

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						to be explored. Where necessary, protection in situ or excavation and removal of material (which is potentially very expensive) may be necessary.	coastal waters.				erosion as a result of SMP policies and work with them to develop plans for adapting to the changing risk.

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POLICY SCENARIO AREA: BLACKSTONE POINT TO START POINT												
6b71	**Blackstone Point to Stoke Fleming**	A & B	NAI	NAI	NAI	Sea level rise may accelerate natural erosion resulting in the loss of vegetated sea cliffs at South Devon Shore Dock SAC in short, medium and long-term. However, as this would be a result of natural coastal processes, it is not considered a significant effect in terms of the Habitats Regulations. **ST** O **MT** O **LT** O Protection of freshwater habitats at Widdicombe Ley CWS in the short-term *but* net area of freshwater habitat may be reduced in medium to long-term. **ST** √ **MT** X **LT** X Managing the realignment	Holding the line in the short to medium-term in some areas has the potential to adversely affect the geological features of Hallsands to Beesands SSSI (geological) and GCRs. Continuation of natural processes is key to the integrity of the SSSIs and GCRs, therefore NAI in the long-term along the coast (except at Blackpool Sands) would continue to maintain these features. **ST** XX **MT** XX **LT** √√	No known impacts on water quality. **ST** O **MT** O **LT** O	Change in landscape character of South Devon AONB. NAI may conflict with some of the AONB management actions (e.g. at Beesands) where there is a project target to construct a coast defence enhancement scheme at the southern end of the village. However, generally a policy of NAI complements the AONB Management Policies e.g. at Slapton Ley NNR where there is an action to develop a strategy for adapting the reserve to predicted climate and coastal change. **ST** O **MT** O	Grade 2 listed buildings at risk of erosion/flooding in some areas (e.g. Beesands) but those in Torcross protected in the short-and medium term. **ST** X **MT** XX **LT** XX Hallsands 'lost village' at risk of further erosion. **ST** X **MT** XX **LT** XXX Managed realignment in the long-term between Strete and Limpet has the potential to impact on Slapton prehistoric deposits	A379 between Torcross and Slapton Sands protected from flooding/erosion in short-term but at risk from flooding/ erosion in long-term. **ST** √√√ **MT** XX **LT** XXX Small areas of Grade 3 and 5 agricultural land at risk due to flooding/ erosion between Blackstone point and Stoke Fleming and Bee Sands and Start point- **ST** XX **MT** XX **LT** XX There is likely to be some slip ways and mooring vulnerable to flooding and erosion. **ST** X	People and properties in Torcross along the A379 protected from flooding/erosion in short and medium but at risk from flooding/ erosion in long-term. **ST** √√√ **MT** √√√ **LT** XXX People and properties in Slapton Sands in the centre of Slapton village protected from flooding/erosion in the short-term but at risk from flooding/ erosion in long-term. **ST** √√√ **MT** XX **LT** XXX Protection of people and property on the sea front at Beesands from flooding in the
6b72	**Stoke Fleming to Blackpool Sands**	A & B	NAI	NAI	NAI							
6b73	**Blackpool Sands**	Variation	NAI	NAI	NAI							
6b74	**Blackpool Sands to Strete**	A & B	NAI	NAI	NAI							
6b75	**Strete to Torcross North (Slapton Sands)**	A	MR	MR/NAI	MR/NAI							
6b76	**Torcross North to Limpet Rocks**	A	HTL	HTL	MR							
6b77	**Limpet Rocks to Beesands (North)**	A	NAI	NAI	NAI							
6b78	**Beesands**	A & B	HTL	HTL/MR	HTL/MR							
6b79	**Beesands (South) to Start Point**		NAI	NAI	NAI							

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						of Slapton Sands may result in some changes to the designated habitats at Slapton Ley SSSI/NNR but will protect the extent of the freshwater lagoons. In the long-term, likely changes to the salinity of the Slapton Ley lagoons through a NAI policy. Potential breach of shingle barrier beach at Slapton Sands resulting in a change to the lake system from freshwater to a tidal lagoon – *adverse impact on freshwater components of lagoon.* The timescales of these events depend on prediction scenarios for wave energy and sea level changes and storm return periods **ST** O **MT** O **LT** XX Potential for change in cliff top vegetation through erosion at Prawle Point and Start Point SSSI – **ST** O **MT** O **LT** O			**LT** O	and WWII sites. **ST** X **MT** XX **LT** XX The submerged forest at Blackpool Sands will remain submerged through a NAI policy. **ST** O **MT** O **LT** O Possible impact on the palaeo-environmental deposits through NAI at Blackpool Sands. **ST** X **MT** X **LT** X	**MT** X **LT** X	short-term but at risk from flooding/ erosion in medium to long-term. **ST** √√√ **MT** XXX **LT** XXX Potential flooding of promenade at Beesands in short, medium and long-term. **ST** X **MT** XX **LT** XX Isolated properties in Strete at risk due to erosion in medium and long-term **ST** O **MT** XXX **LT** XXX South West Coast Path south of Beesands at risk due to erosion/ flooding in medium and long-term **ST** O **MT** X **LT** X Potential for loss of tourist facilities and car parks at a number of small beach and cove access points e.g. Near Strete Gate and the A379 between Slapton and Strete in medium and long-term. **ST** O **MT** XX

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												LT XX
Mitigation Measures/Environmental Opportunities						The potential to realign the Prawle Point and Start Point SSSI boundary landward should be explored. The replacement of freshwater habitat lost due to saline inundation will be sought as appropriate.	Any defence works should avoid obscuring the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.	Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	No mitigation required. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording..	No mitigation has been identified for losses of agricultural land. Consider relocating part of the A379 further inland.	Depending on the facilities that may be affected by flooding or erosion, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Review/develop asset and Beach Management Plans for Torcross and Beesands to guide maintenance of defences and beaches along these frontages to ensure that they continue to provide adequate defence. Engage organisations and general public to inform them of the potential future risks of flood and coastal erosion as a result of SMP policies and work with them to develop plans for adapting to the changing risk.

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POLICY SCENARIO AREA: START POINT TO BOLT HEAD												
6c01	**Start Point to Prawle Point**	A, B & C	NAI	NAI	NAI	Sea level rise may accelerate natural erosion	Continuation of natural processes is key to the	No known impacts	Change in landscape character of South	Grade 2 and 3 listed buildings at risk of	Grade 3 and 4 agricultural land at risk	Isolated properties at risk from

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6c02	Prawle Point to Limebury Point	A, B & C	NAI	NAI	NAI	resulting in the loss of vegetated sea cliffs at South Devon Shore Dock SAC in short, medium and long-term. However, as this would be a result of natural coastal processes, it is not considered a significant effect in terms of the Habitats Regulations. **ST** O **MT** O **LT** O Continuation of natural processes is key to the integrity of the Prawle Point and Start Point SSSI (biological). NAI would continue to maintain the biological interest features and enhance the lower cliff vegetation above the intertidal zone **ST** √ **MT** √√ **LT** √√ However, there is potential for negative effects where erosion is a result of HTL updrift in any of the policy units. **ST** X **MT** X **LT** XX Increase in intertidal habitat (if not squeezed against manmade structures) at Salcombe to Kingsbridge Estuary SSSI (biological) and LNR **ST** √ **MT** √√	integrity of Prawle Point and Start Point SSSI. NAI along the coast would continue to maintain and enhance the geological interest features. **ST** √ **MT** √√ **LT** √√	on water quality. **ST** O **MT** O **LT** O	Devon AONB and Heritage Coast. **ST** O **MT** O **LT** O	flooding throughout the section; predominantly Salcombe and Kingsbridge. **ST** X **MT** XX **LT** XXX Loss of up to 1 Scheduled Monument (SM): Coaxial Field System SM. **ST** X **MT** XX **LT** XXX A small area of Overbecks Registered Park and Garden at risk of flooding/erosion in short, medium and long-term. **ST** X **MT** XX **LT** XX Potential for impact on anti-aircraft batteries between Salcombe and Splat Cove **ST** X **MT** XX **LT** XX	of flooding/ erosion. **ST** X **MT** XX **LT** XX Section of the A38 and B3204 (Cliff Road) protected from flooding/erosion. **ST** √ **MT** √√ **LT** √√√	flooding/erosion: in short, medium and long-term - Lannacombe beach - West of Lannacombe Beach **ST** XXX **MT** XXX **LT** XXX Risk of flooding to some community and recreational amenities. **ST** X **MT** XX **LT** XX People and properties in the centre of Kingsbridge and Salcombe (predominantly along Cliff Road and Island street) protected from flooding. **ST** √√√ **MT** √√√ **LT** √√√
6c03	Salcombe Harbour (Limebury Point to Kingsbridge Estuary - Scoble Point)	A & C	NAI/HTL	NAI/HTL	NAI/HTL							
6c04	Kingsbridge Estuary East (Scoble Point to Kingsbridge)	A & C	NAI/HTL	NAI/HTL	NAI/HTL							
6c05	Kingsbridge Estuary - Kingsbridge	A, B & C	NAI/HTL	NAI/HTL	NAI/HTL							
6c06	Kingsbridge Estuary West (Kingsbridge to Snapes Point)	A & C	NAI/HTL	NAI/HTL	NAI/HTL							
6c07	Salcombe (Snapes Point to Splat Cove Point)	A & C	NAI/HTL	NAI/HTL	NAI/HTL							
6c08	Splat Cove Point to Bolt Head	A, B & C	NAI	NAI	NAI							

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						LT √√ Loss of freshwater habitat in hinterland at Salcombe to Kingsbridge Estuary SSSI (biological) and LNR due to saline intrusion to the south of Limebury Point. Loss of intertidal habitat due to coastal squeeze in Kingsbridge Estuary, particularly on western edge*s* **ST** X **MT** XX **LT** XX Change in net area of cliff top grassland and heathland habitats at Bolt Head to Bolt Tail SSSI may be reduced **ST** O **MT** O **LT** O						
Mitigation Measures/Environmental Opportunities						Habitat losses and gains will be quantified at strategy level and, replacement intertidal and freshwater habitat sought through the RHCP.	No mitigation required.	Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	No mitigation required. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording.	No mitigation has been identified for losses of agricultural land.	There may be no provision for compensating or mitigating the loss of private properties. Engage organisations and general public to inform them of the potential future risks of flood and coastal erosion as a result of SMP policies and work with them to develop plans for adapting to the changing risk.

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POLICY SCENARIO AREA: BOLT HEAD TO WEMBURY POINT												
6c09	**Bolt Head to Bolt Tail**	A, B & C	NAI	NAI	NAI	Although there is potential to increase the intertidal habitat in some areas of the Plymouth Sound and Estuaries SAC, HTL may result in the net loss of intertidal habitat (where present) within the site as a result of coastal squeeze. **HR Potential Adverse Effect – Plymouth Sound and Estuaries SAC** Although largely beneficial, MR has the potential to affect reefs within Prawle Point to Plymouth Sound and Eddystone cSAC through changes in geomorphological processes, resulting in a change to sediment supply. However, such effects are likely to be localised and sediment turbidity, dispersion and deposition is unlikely to change significantly from background levels **HR No adverse effect – Prawle Point to Plymouth Sound and Eddystone cSAC** Continuation of natural processes is beneficial to the integrity of Blackstone Point SAC and SSSI and any constraints to natural processes arising from sea level rise are not a result of SMP policy. This effect is therefore not considered to be significant in terms of the Habitats Regulations. **ST** O	Continuation of natural processes is key to the integrity of Wheal Emily SSSI and Wembury Point SSSI (geological), therefore NAI would continue to maintain these features **ST** √ **MT** √√ **LT** √√	No known impacts on water quality. **ST** O **MT** O **LT** O	Change in landscape character of South Devon AONB. It is possible that NAI may conflict with some of the management objectives of the AONB Management Plan, particularly those relating to improvement works at Challaborough **ST** O (X Challaborough) **MT** O(X Challaborough) **LT** O(X Challaborough)	Grade 1, 2 and 3 listed buildings potentially at risk from flooding particularly in Yealmpton and Newton Ferrers. **ST** X **MT** XX **LT** XXX Up to 5 Scheduled Monument (SMs) at risk: - Field Systems, Hut Circles and Four Beacons SM, Medieval Farmstead & Field System at Warren Barn SM, Five Round Barrows SM, Iron Age Cliff Castle SM and Roman Settlement Site SM at Bantham Ham. **ST** X **MT** XX **LT** XXX Registered Parks and Gardens: - Langdon Court Hotel at risk of flooding - Flete at risk of flooding, Erme Estuary and Erme Ingot protected wrecks at risk from erosion. **ST** X **MT** XX **LT** XXX	Risk of flooding to the A379 (along the Erme Estuary, at Aveton Gifford, Yealmpton and Brixton) and A3121 along the Erme Estuary in the short, medium and long-term. **ST** X **MT** XX **LT** XXX Risk of flooding to industrial assets at Steer point, and hotel south of A379 near Brixton. **ST** X **MT** XX **LT** XXX Grades 3 , 4 and 5 Agricultural land at risk of flooding/ erosion in short, medium and long-term **ST** X **MT** XX **LT** XX	Risk of erosion & flooding to a hotel near Southdown and Thurlestone Rock and properties at Outer and Inner Hope in short, medium and long-term. **ST** XXX **MT** XXX **LT** XXX Risk to people and properties at Stoke Beach at Bigbury-on-Sea and Burgh island from erosion in medium and long-term **ST** O **MT** XXX **LT** XXX Risk of flooding to people and properties at Aveton Gifford, Bridge end in the Avon Estuary, Clying Mill, Yealmpton and the village of Yealm, along the waterfront at Newton Ferrers, properties near the junction of the A379 and A3121, and Goutsford BR, and a single property Efford Ho on the Erme Estuary **ST** XXX **MT** XXX **LT** XXX Potential risk to the South West Coast Path from erosion.
6c10	**Bolt Tail to Thurlestone Rock**	A, B & C	NAI	NAI	NAI							
6c11	**Thurlestone Rock to Warren Point**	B	NAI	NAI	NAI							
6c12	**Warren Point to Avon Estuary (East)**	A, B & C	NAI	NAI	NAI							
6c13	**Avon Estuary (East Bank – Mouth to Stadbury Farm)**	A, B & C	NAI	NAI	NAI							
6c14	**Avon Estuary (Upstream section – Stadbury Farm to Stakes Hill)**	A, B & C	MR	MR	MR							
6c15	**Avon Estuary (West Bank – Stakes Hill to Warren Point (Bigbury-on-Sea))**	A, B & C	NAI	NAI	NAI							
6c16	**Warren Point (Bigbury-on-Sea) to Challaborough (West)**	Variation	NAI	NAI	NAI							
6c17	**Challaborough (West) to Erme Estuary (East)**	A, B & C	NAI	NAI	NAI							
6c18	**Erme Estuary (East Bank – Mouth to Orcheton Wood)**	A, B & C	NAI	NAI	NAI							
6c19	**Erme Estuary (Upstream section – Orcheton Wood to Pamflete Wood)**	A, B & C	NAI	NAI	NAI							
6c20	**Erme Estuary (West Bank – Pamflete Wood to Mouth)**	A, B & C	NAI	NAI	NAI							
6c21	**Erme Estuary (West) to Yealm Estuary (East)**	A, B & C	NAI	NAI	NAI							
6c22	**Yealm Estuary (East Bank – Mouth to Passage House)**	A, B & C	NAI	NAI	NAI							
6c23	**Yealm Estuary (East Bank – Passage House to Newton Ferrers**	A, B & C	HTL	HTL	HTL							

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	North)					**MT** O **LT** O Change in net area of cliff top grassland, heathland and scrub habitats at Bolt Head to Bolt Tail SSSI. There is potential for negative effects where erosion is a result of HTL updrift in any of the policy units. **ST** X **MT** X **LT** XX Potential loss of the net area of some of the interest features of Erme Estuary, Yealm Estuary and South Milton Ley SSSIs due to flooding and erosion, but natural coastal processes. **ST** O **MT** O **LT** O Potential for intertidal habitat creation in many areas including on the Yealm Estuary SSSI. **ST** √ **MT** √√ **LT** √√ Potential for loss of reedbed habitat at South Milton Ley SSSI due to coastal flooding, but natural coastal processes. **ST** O **MT** O **LT** O Potential for the net loss				Continued erosion of early medieval settlement at Meadowsfoot Beach as a result of NAI, Possible loss of pillbox at Challaborough Beach **ST** X **MT** XX **LT** XX		**ST** X **MT** X **LT** X Protection of Golf Course and Coast Path at Thurlestone in short-term but net loss due to erosion in medium and long-term. **ST** √ **MT** X **LT** X Potential loss of access to isolated coves and loss of parking/ tourist amenities in medium and long-term **ST** X **MT** XX **LT** XX Sailing club at Wembury at risk of flooding **ST** X **MT** XX **LT** XX
6c24	Yealm Estuary (East Bank – Newton Ferrers North to Fish House Plantation)	A, B & C	NAI	NAI	NAI							
6c25	Yealm Estuary (West Bank – Fish House Plantation to Season Point)	A, B & C	NAI	NAI	NAI							
6c26	Season Point to Wembury Point	A, B & C	NAI	NAI	NAI							

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						of one or more features of the Wembury Voluntary Marine Conservation area due to erosion. **ST** X **MT** XX **LT** XX						
Mitigation Measures/Environmental Opportunities						Designated habitat losses and gains will be quantified at strategy level and, compensatory habitat sought through the RHCP for intertidal habitat losses within the Plymouth Sound and Estuaries SAC. Replacement intertidal and reedbed habitat will be sought as appropriate.	No mitigation required.	Works in areas selected for managed realignment should be implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	Ensure that any works at Challaborough are sympathetically designed to avoid conflicting with the AONB Management Plan objectives and that Natural England are consulted during the development of a scheme. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	The likely impacts of the preferred SMP policy option on these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation may take the form of excavation and recording.	No mitigation has been identified for losses of agricultural land. Consider relocating industrial assets further inland.	Depending on the facilities that may be affected by flooding or erosion, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Engage organisations and general public to inform them of the potential future risks of flood and coastal erosion as a result of SMP policies and work with them to develop plans for adapting to the changing risk.

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POLICY SCENARIO AREA: WEMBURY POINT TO DEVIL'S POINT												
6c27	**Wembury Point to Mount Batten Breakwater**	A	NAI	NAI	NAI	Potential loss of intertidal habitat in the Plymouth Sound and Estuaries SAC/Plymouth Sound Shores and Cliffs SSSI (biological) due to coastal squeeze against the cliff as	Continuation of natural processes is key to the integrity of the Wallsend Industrial Estate, Faraday Road, Lockridge Mine, Mount Rise, Rochmond Walk,	HTL will prevent contamination of the Plym Estuary but in the long-term, will lead to narrowing and loss of intertidal areas in the upper	Change in landscape character of South Devon AONB. **ST** O **MT** O **LT** O	Protection of Grade 1, 2 and 3 listed buildings from flooding or erosion. Protection of Registered Parks and	The A347 and A38 protected from flooding in the short, medium and long-term **ST** √ **MT** √√	Properties at Wembury Point, Bovisand Bay and Staddon Point at risk from erosion in the short, medium and
6c28	**Plym Estuary - Mount Batten Breakwater to Marsh Mills**	A	HTL	HTL	HTL							

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6c29	Plym Estuary - Marsh Mills to Coxside	A	HTL	HTL	HTL	sea levels rise and against hard defences to the west of Mount Batten Breakwater. **HR Potential Adverse Effect (intertidal habitat) – Plymouth Sound and Estuaries SAC.** It is anticipated that adverse effects can be avoided by mitigation on the 'sandbanks slightly covered by seawater all of the time' within this European site.	Wembury point, Western King SSSIs (geological), therefore NAI between Wembury Point to Mount Batten Breakwater would continue to maintain these features. **ST** √ **MT** √√ **LT** √√	part of the estuary, as they are prevented from adapting naturally, leading to failure of WFD objectives 2 and 3. **ST** X **MT** XX **LT** XXX		Gardens and five Scheduled Monuments. **ST** √ **MT** √√ **LT** √√√	**LT** √√√ Grades 2, 3 and 4 agricultural land at risk from flooding or erosion in the short, medium and long-term **ST** X **MT** XX **LT** XX	long-term. **ST** XXX **MT** XXX **LT** XXX People and properties protected from flooding in Plymouth Dockyards, Cattedown, along the A347 adjacent to the River Plym, Industrial area near Crabtree and along the Plymouth Road in Plympton in the short, medium and long-term **ST** √√√ **MT** √√√ **LT** √√√ Risk of erosion and loss of net area of some tourist amenities e.g. South West Coast Path at risk from erosion and potential loss in some areas in medium and long-term **ST** O **MT** X **LT** X
6c30	Coxside to Devil's Point	A	HTL	HTL	HTL							

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Mitigation Measures/Environmental Opportunities					Designated habitat losses and gains will be quantified at strategy level and, compensatory habitat sought through the RHCP for intertidal habitat losses within the Plymouth Sound and Estuaries SAC. Any new defences between Coxside and Devil's Point should be designed to reduce their reflectivity to avoid adverse effects on the 'sandbanks slightly covered by seawater all of the time' of Plymouth Sound and Estuaries SAC and minimise the potential scouring of this qualifying feature.	No mitigation required.	Works in areas selected for holding the line should be implemented so as to not adversely impact on the water quality status of the coastal waters.	No mitigation required. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	No mitigation required. Where heritage assets are protected, opportunities should be sought at scheme level to improve the condition of the sites, where appropriate.	No mitigation has been identified for losses of agricultural land.	Depending on the facilities that may be affected by flooding or erosion, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Undertake a study to investigate the importance of the Plymouth Sound Breakwater in terms of reducing wave action on shoreline defences. Review/develop Asset Management Plans for Plymouth (including the Plym Estuary) to guide maintenance of defences and develop a programme of works along these frontages to ensure that they continue to provide adequate defence.

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POLICY SCENARIO AREA: TAMAR ESTUARY												
6c31	Tamar Estuary - Devil's Point to Tamerton Lake		HTL	HTL	HTL	HTL may result in the loss of intertidal habitat within the Plymouth Sound and Estuaries SAC (including Plymouth Sound Shores and Cliffs SSSI) due to coastal squeeze. It is anticipated that adverse effects can be avoided on the 'sandbanks slightly covered by seawater all of the time' within this European site. **HR Potential Adverse Effect – Plymouth Sound and Estuaries SAC** HTL may adversely affect internationally important bird populations resulting from the loss of intertidal habitat within the Tamar Estuaries Complex SPA (and Tamar-Tavy Estuary SSSI) due to coastal squeeze **HR Potential Adverse Effect – Tamar Estuaries Complex SPA** Where NAI or managed realignment, natural processes will prove beneficial to the European sites. **ST** √ **MT** √√ **LT** √√√ Managed realignment between Tamerton Lake and Saltash North (upper Tamar Estuary West) is likely to increase the extent of wetland habitat adjacent to the River Tavy and River Tamar. **ST** √	All disused landfill sites protected from flooding. **ST** √ **MT** √√ **LT** √√√	HTL will result in the gradual loss of intertidal areas in the Tamar Estuary as they are restricted from adapting by the ongoing presence of defences at Plymouth, thus potentially failing WFD objectives 2 and 3. **ST** X **MT** XX **LT** XXX	Change in landscape character of South Devon/Cornwall and Tamar Valley AONB and Heritage Coast. **ST** O **MT** O **LT** O	Cornwall and West Devon mining World Heritage Site adjacent to the River Tamar protected from flooding. **ST** √ **MT** √√ **LT** √√√ Grade 1, 2 and 3 listed buildings protected from flooding. **ST** √ **MT** √√ **LT** √√√ Registered Parks and Gardens (e.g. Antony pleasure grounds and Cotehele) protected from flooding. **ST** √ **MT** √√ **LT** √√ Scheduled Monuments protected from flooding including - No 1 Basin And No 1 Dock, South Yard, Devonport Dockyard at risk of flooding - Slip No 1 (The Covered Slip), South Yard, Devonport Dockyard at risk from flooding	A38 near the junction with New Road protected from flooding. **ST** √ **MT** √√ **LT** √√√ A347 and A38 protected from flooding. **ST** √ **MT** √√ **LT** √√√ Some areas of Grade 2, 3 and 4 agricultural land at risk from flooding or erosion **ST** X **MT** XX **LT** XX	Limited impacts on isolated properties. People and properties protected from flooding in Plymouth Dockyards, Cattedown, along the A347 adjacent to the River Plym, Industrial area near Crabtree and along the Plymouth Road in Plympton **ST** √√√ **MT** √√√ **LT** √√√ People and properties around the Tamar Bridge and along the edge of the town's limits at Burraton Coombe protected from flooding. **ST** √√√ **MT** √√√ **LT** √√√ South West Coast Path at risk from managed realignment in some areas. **ST** X **MT** X **LT** X
6c32	Tamar Estuary - Tamerton Lake to Gunnislake (upper Tamar Estuary East)		NAI/MR/HTL	NAI/MR/HTL	NAI/MR/HTL							
6c33	Tamar Estuary - Gunnislake to Saltash North (upper Tamar Estuary West)		NAI/MR/HTL	NAI/MR/HTL	NAI/MR/HTL							
6c34	Tamar Estuary - Saltash		HTL	HTL	HTL							
6c35	Tamar Estuary - River Lynher (Saltash South to Torpoint North (Jupiter Point))		HTL/NAI	HTL/NAI	HTL/NAI							
6c36	Tamar Estuary - Torpoint North (Jupiter Point) to Torpoint South (Landing Stage)		HTL	HTL	HTL							
6c37	Tamar Estuary - St John's Lake (Torpoint South (Landing Stage) to Millbrook (Mill Farm))		HTL/NAI	HTL/NAI	HTL/NAI							
6c38	Tamar Estuary - St John's Lake (Millbrook (Mill Farm) to Millbrook (Hancock's Lake))		HTL/NAI	HTL/NAI	HTL/NAI							
6c39	Tamar Estuary - St John's Lake (Millbrook (Hancock's Lake) to Palmer Point		HTL/NAI	HTL/NAI	HTL/NAI							
6c40	Tamar Estuary - Palmer Point to Mount Edgcumbe (Cremyll))		HTL/NAI	HTL/NAI	HTL/NAI							

Policy Unit (Number and Description)		Scenario	Preferred Policy			SEA Appraisal of Preferred Policy Scenarios (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	Earth Heritage, Soils and Geology	Water	Landscape Character and Visual Amenity	Historic Environment (Cultural Heritage)	Land Use, Infrastructure and Material Assets	Population and Human Health
						MT √√ **LT** √√ Potential loss of the net area of intertidal habitat at St John's Lake SSSI through coastal squeeze due to holding the line. **ST** X **MT** XX **LT** XX				- Bohetherick Lime Kiln With Adjacent Quay And Ancillary Buildings, 140m South East Of Cotehele Bridge at risk from flooding - Gawton Arsenic Mine And Flue at risk from flooding - Okeltor 19th Century Arsenic, Copper And Tin Mine at risk from flooding **ST** √ **MT** √√ **LT** √√√		
Mitigation Measures/Environmental Opportunities						Designated habitat losses and gains will be quantified at strategy level and, compensatory habitat sought through the RHCP for intertidal habitat losses within the Plymouth Sound and Estuaries SAC and Tamar Estuaries Complex SPA. Any new defences in the Tamar Estuary should be designed to reduce their reflectivity to avoid adverse effects on the sandbanks of Plymouth Sound and Estuaries SAC and minimise the potential scouring of this qualifying feature.	No mitigation required.	Works in areas selected for holding the line should be implemented so as to not adversely impact on the water quality status of the coastal waters.	No mitigation required. Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	No mitigation required. Where heritage assets are protected, opportunities should be sought at scheme level to improve the condition of the sites, where appropriate.	No mitigation has been identified for losses of agricultural land.	Depending on the facilities that may be affected by flooding or erosion, mitigation may take the form of relocating the assets further inland (e.g. the South West Coast Path). Undertake a detailed study of the Tamar Estuary to investigate managed realignment opportunities and future flood defence needs to develop a programme of works and further study.

Policy Unit (Number and Description)		Scenario	Preferred Policy			SEA Appraisal of Preferred Policy Scenarios (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
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POLICY SCENARIO AREA: MOUNT EDGCUMBE TO RAME HEAD												
6c41	**Mount Edgcumbe to Picklecombe Point**		NAI	NAI	NAI	HTL may result in the loss of intertidal habitat within the Plymouth Sound and Estuaries SAC due to coastal squeeze **HR Potential Adverse Effect – Plymouth Sound and Estuaries SAC** It is anticipated that adverse effects can be avoided on the 'sandbanks slightly covered by seawater all of the time' within this European site.	Continuation of natural processes is key to the integrity of the Kingsand to Sandway Point SSSI and, therefore NAI in the northern section of this SSSI would continue to maintain the exposures. **ST** √ **MT** √√ **LT** √√ Holding the line in the southern section of the SSSI between Kingsand and Cawsand has the potential to negatively impact this feature. **ST** X **MT** XX **LT** XX Continuation of natural processes is key to the integrity of Rame Head and Whitsand Bay SSSI, therefore the preferred policy would continue to maintain the interest features of the SSSI. **ST** √ **MT** √√ **LT** √√	No known impacts on water quality. **ST** O **MT** O **LT** O	Change in landscape character of Cornwall and Tamar Valley Areas of Outstanding Natural Beauty and Heritage Coasts. **ST** O **MT** O **LT** O	Some Grade 1, 2 and 3 listed buildings at risk from flooding or erosion in the short, medium and long-term including clusters of listed buildings located in around Mount Edgcumbe Country Park Potential loss of parts of Mount Edgcumbe Registered Parks and Gardens from erosion in the short, medium and long-term. **ST** X **MT** XX **LT** XXX Potential loss of Promontory Fort and St Michael's Chapel, Rame Head SM due to erosion. **ST** X **MT** XX **LT** XXX Protection of Cawsand Fort Scheduled Monument in medium and long-term. **ST** O **MT** √√ **LT** √√√	Protection of Plymouth Ferry Dock facilities from flooding **ST** √ **MT** √√ **LT** √√√ Some areas of Grades 2, 3 and 4 agricultural land at risk from flooding or erosion in the short, medium and long-term **ST** X **MT** XX **LT** XX Penlee Point Fog Signal Station at risk from erosion in the short, medium and long-term **ST** X **MT** XX **LT** XXX	Isolated properties, farmsteads and coastal hamlets at risk from erosion between Mount Edgcumbe and Kingsand. **ST** XXX **MT** XXX **LT** XXX Holding the line will sustain features at Kingsand and protect people and properties from erosion at Cawsand on sea front **ST** √√√ **MT** √√√ **LT** √√√ Potential loss of a small area of Mount Edgcumbe Country Park. **ST** X **MT** XX **LT** XX South West Coast Path at risk from erosion and potential loss between Mount Edgcumbe and Picklecombe Point, Picklecombe Point and Kingsand and between Cawsand and Rame Head. **ST** X **MT** X **LT** X
6c42	**Fort Picklecombe**		HTL	HTL	HTL							
6c43	**Picklecombe Point to Kingsand**		NAI	NAI	NAI							
6c44	**Kingsand/Cawsand**		HTL	HTL	HTL							
6c45	**Cawsand to Rame Head**		NAI	NAI	NAI							
Mitigation Measures/Environmental Opportunities						Designated habitat losses and gains will be quantified at strategy level and,	Any defence works at Kingsand/Cawsand should avoid obscuring	Works in areas selected for holding the line should be	No mitigation required.	The likely impacts of the preferred SMP policy option on	No mitigation has been identified for losses of agricultural	Depending on the facilities that may be affected by flooding or

Policy Unit (Number and Description)	Scenario	Preferred Policy			SEA Appraisal of Preferred Policy Scenarios (refer to Appendix D for SEA Environmental Baseline – Theme Review)						
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					compensatory habitat sought through the RHCP for intertidal habitat losses within the Plymouth Sound and Estuaries SAC. Any new defences at Kingsand/Cawsand should be designed to reduce their reflectivity to avoid adverse effects on the sandbanks of Plymouth Sound and Estuaries SAC and minimise the potential scouring of this qualifying feature.	the cliff face and be sympathetically designed to minimise adverse effects on the geological features of the earth heritage sites.	implemented so as to not adversely impact on the water quality status of the coastal waters, and does not compromise the achievement of WFD water quality targets.	Consider opportunities to improve landscape character in AONB/Heritage Coast Management Plans.	these historic features will be investigated further at strategy or scheme level. Where avoidance of the features from flooding/erosion is not possible and where they cannot be preserved in situ, mitigation will take the form of excavation and recording. Where heritage assets are protected, opportunities should be sought at scheme level to improve the condition of the sites, where appropriate.	land. Consider relocating the fog signal station back from the coastal edge as the coast erodes.	erosion, mitigation may take the form of relocating the assets further inland. There may be no provision for compensating or mitigating the loss of private properties. Review/develop Asset Management Plans for Kingsand/ Cawsand to guide maintenance of defences and develop a programme of works along these frontages to ensure that they continue to provide adequate defence. Engage organisations and general public to inform them of the potential future risks of flood and coastal erosion as a result of SMP policies and work with these to develop plans for adapting to the changing risk.

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 realign naturally. In these areas the SEA objectives relating to population and human health are unlikely to be met fully. 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.
	To avoid loss due to erosion of and manage risk of flooding to key community, recreational and amenity facilities (Population and human health)	
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 been achieved.
	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. However, the objective to ensure critical road and rail linkages are maintained will become increasingly difficult to achieve in the long-term as holding the line in some areas becomes less acceptable due to economics, technical sustainability and environmental acceptability. Consequently, it may be necessary to re-route some of the major infrastructure in the longer term under this SMP.
	To ensure critical services remain operational (Material assets)	For much of the South Devon and Dorset 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	***To support- natural processes and maintain visibility of geological exposures throughout internationally and nationally designated Earth Heritage sites*** (Geology and Soils)	The proposed SMP policies seek to support natural processes and maintain the visibility of geological exposures wherever possible. In most areas, the SMP policies are compatible with the Jurassic Coast World Heritage Site objectives e.g. to conserve the geology and geomorphology of the site. 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.
	To support natural processes and maintain the integrity of internationally designated nature conservation sites and the favourable condition of their interest features (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 processes and maintaining designated sites (e.g. where the natural roll-back of the designated Chesil Beach would result in coastal squeeze of the designated Fleet lagoon). In such areas, this objective could not be fully achieved by any particular shoreline management response. However, the SMP policies have been developed so that they enable careful management of the shoreline between Durlston Head and Rame 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.
	To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites. (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 (e.g. at Portland Harbour Shore) against either fixed defences or the cliffs and in other areas, will result in the protection of some designated grassland habitats. 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 Durlston Head and Rame 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.
	To avoid adverse impacts on, conserve and where practical enhance the designated interest of locally designated conservation sites (Flora, fauna and biodiversity, geology)	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 while in other areas, it may result in habitat creation (e.g. at The Maer LNR). Careful management of the shoreline between Durlston Head and Rame 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.
	To prevent pollution from contaminated sources (Geology and soils, water)	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.

	Objective	Fulfilment of SEA Objectives by Preferred SMP Policies
		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. 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.
	To avoid loss of scheduled and other internationally and nationally important heritage assets and features. (Cultural heritage)	Many more of the heritage sites 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 internationally and nationally important heritage assets and features.
	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. (Landscape)	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. Generally, the SMP policies therefore achieve the SEA objective to conserve and enhance AONBs and avoid conflicts with AONB Management Plan or Heritage Coast objectives though in some areas, the loss of coastal properties, to which AONB designations refer, may affect the quality of the landscape.
	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
	To ensure MoD ranges remain operational. (Population, material assets)	The MoD ranges lie generally within undeveloped stretches of coastline and therefore the preferred SMP policies may result in the erosion of small areas of ranges in the short to long-term. The ranges will however remain operational and therefore the SEA objective is likely to be fulfilled by the preferred SMP policies.