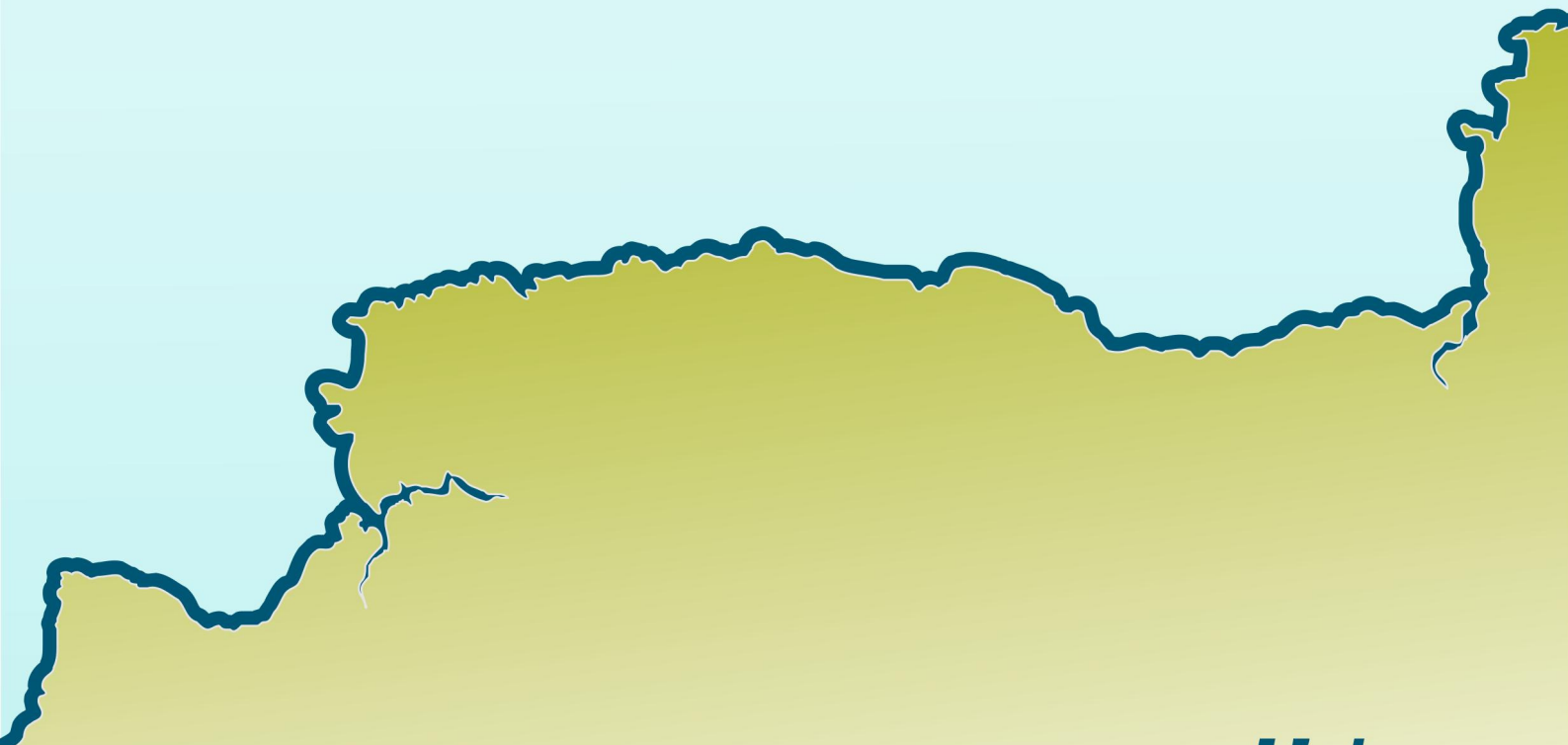


North Devon and Somerset Coastal Advisory Group (NDASCAG)

Shoreline Management Plan SMP2 Hartland Point to Anchor Head

Non-Technical Summary
October 2010



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I. Non-technical Summary

I.1 Introduction

The North Devon and Somerset Coastal Advisory Group (NDASCAG) is developing a long-term plan to set out the future management of the coastline from Hartland Point (Devon) to Anchor Point (North Somerset) – the Hartland Point to Anchor Head Shoreline Management Plan (SMP) 2. This SMP is a plan that identifies policies over a 100 year timescale to manage tidal flooding and coastal erosion risks in the plan area (Figure I.1).

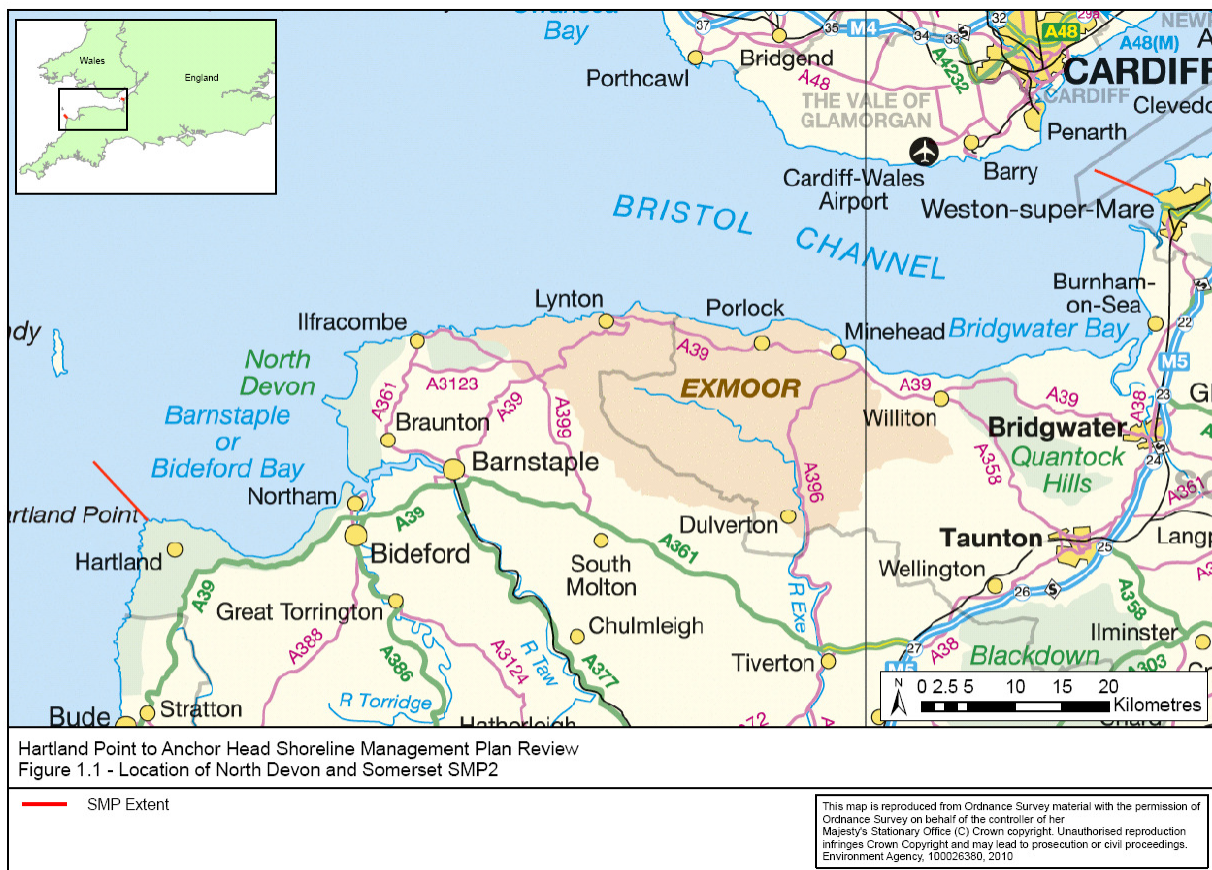


Figure I.1 North Devon and Somerset SMP area

The plan includes a Strategic Environmental Assessment (SEA) to ensure that the recommendations of the final plan are environmentally appropriate and potential opportunities for enhancement are identified. SEA is the appraisal of the potential environmental consequences of high level decision-making, to help protect the environment and to help ensure environmental considerations are integrated into the preparation and adoption of plans and programmes.

This document is a non-technical summary of the SEA process for the Hartland Point to Anchor Head SMP2. This summary describes the background and purpose of both the SEA and the SMP and sets out the recommended strategic management options for the coastline. The SEA Report describes the environmental characteristics of the plan area and identifies a set of proposed environmental objectives for the study based on the identified key environmental issues.

1.2 Baseline Environment

The current state of the environment is described in a report called 'SEA Environmental Baseline (Theme Review)', which is appended to the main SMP. The key environmental issues identified within the Theme Review are summarised below:

- **Flora, Fauna and Biodiversity** – the importance of the plan area for wildlife is reflected in the designation of international, national and local nature conservation sites. The study area supports a variety of habitats including sea cliffs, mudflats, saltmarsh, estuaries, sand dunes, marshland, woodland, heathland, grassland and lagoons. Opportunities exist to create intertidal and wetland habitat in low-lying parts of the study area.
- **Soils and Geology** – The coastline is of considerable geological importance, and is nationally designated for its earth heritage value. There are a number of Site of Special Scientific Interest designated for their geological interest and exposed rock sequences. The geomorphology of the SMP area is varied and includes shingle banks, sand dunes and salt marshes. Potential areas of contamination and known landfills are also present.
- **Air and Climatic Factors** – The long term effects of rising sea levels expected due to climate change could have significant implications for future flood risks to the natural, historic and built environment across large areas of low-lying land in the SMP area.
- **Water** – Within the SMP area, there are numerous surface and ground water bodies, and a number of award winning bathing beaches. These all have the potential to be affected by SMP policies.
- **Landscape** – The high value of the landscape in the SMP area is recognised by the designation of large parts of the North Devon and Somerset coast being designated as Areas of Outstanding Natural Beauty (AONB), four Heritage Coasts and Exmoor National Park. These are national designations to conserve natural beauty.
- **Cultural Heritage, including architectural and archaeological heritage** – The SMP area contains designated assets such as Scheduled Monuments, Listed Buildings, Registered Parks and Gardens and built Conservation Areas as well as non-scheduled or unknown archaeological assets.
- **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, commercial and industrial areas, 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 is a priority; population and properties are concentrated in Appledore, Barnstaple, Bideford, Braunton, Bridgwater, Burnham-on-Sea, Ilfracombe, Lynmouth, Minehead, Watchet, Weston-super-Mare, Westward Ho!, Woolacombe and other smaller towns/villages. Recreation and tourism in the study area is largely centred on the coastline. The North Devon coast has seen a revival in recent years with the popularity of water based recreational activities such as surfing, windsurfing, kite surfing etc. Land based activities generally rely on the natural environment and comprise swimming, walking, fishing, bird watching and rock climbing.

1.3 SEA Objectives

Environmental objectives were identified for the SMP to appraise the preferred policy options during the assessment process. These objectives were developed following identification of key environmental features or assets along the coastline, and through a review of aerial photography, maps and consultation with stakeholders:

- To avoid loss of property due to erosion and/or manage risk of flooding to people and property.
- To avoid loss due to erosion of, and manage risk of flooding to, key community, recreational and amenity facilities.
- To avoid loss due to erosion of, and manage risk of flooding to, industrial, commercial and economic assets and activities.
- To minimise the impact of policies on marine operations and activities.
- To ensure critical road and rail linkages are maintained.
- To ensure critical services remain operational.
- To allow natural processes and maintain visibility of geological exposures throughout geological Sites of Special Scientific Interest.
- To maintain the integrity of internationally designated sites.
- To avoid adverse impacts on, conserve and, where practical, enhance the designated interest of nationally designated nature conservation sites.
- To avoid adverse impacts on, conserve and, where practical, enhance the designated interest of locally designated conservation sites.
- To prevent pollution from contaminated sources.
- To avoid adverse impacts on scheduled and other nationally, regionally and locally important cultural heritage sites.
- To avoid conflict with Areas of Outstanding Natural Beauty management plan, heritage coast and coastal preservation area objectives.
- To avoid loss due to erosion of and/or manage risk of flooding to agricultural land.
- To achieve compliance with Water Framework Directive objectives.

1.4 Alternative SMP Policy Options

Four generic options were considered as part of the policy plan and these are listed in Table 1.1. The shoreline management policies considered are those defined by Defra (2006).

Table I.1 SMP Policy Options

SMP Policy	Description
Hold the line	Maintain or change the level of protection provided by defences in their present location.
Advance the line	Build new defences on the seaward side of the existing defence line to reclaim land.
Managed realignment	Allowing the shoreline position to move backwards (or forwards) 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.

1.5 Consultation

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 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 Plan.

The consultation process has been active from the inception stage and has continued throughout the development of the SMP.

The public were provided with the opportunity to comment on the draft SMP and SEA via the distribution of a summary leaflet and the SMP and SEA document was made available for viewing.

The SMP was then finalised based on all the comments received and disseminated to stakeholders and the public.

1.6 Environmental Impacts of the SMP

Biodiversity, Flora and Fauna: The SMP seeks to support natural processes and maintain wildlife (including the condition of designated sites) along the coastline. The SMP recommends the preferred policies of no active intervention or managed realignment where it would be possible to enhance and/or create new areas of wetland habitat within or adjacent to designated conservation sites, which would have beneficial impacts.

However, in some locations, holding the line is essential to protect cities or towns. In some of these locations, intertidal habitats may be adversely affected (e.g. at Weston-super-Mare) or lost in the long term due to expected future sea level rise as they may become squeezed against fixed defences or cliffs. In other areas, where defences will continue to be maintained, some designated freshwater or terrestrial habitats may benefit from holding the line and be protected from coastal flooding.

Where impacts on international conservation sites are possible, further assessment (a Habitats Regulations Assessment) has been undertaken. A total of ten sites designated as Special Protection Area (SPA), Special

Area of Conservation (SAC) or Ramsar Site were identified that have the potential to be affected by the policies of the SMP. The assessment has concluded that in the absence of mitigation there is the potential that interest features, and hence the site integrity, may be adversely affected for the Severn Estuary SPA, SAC and Ramsar Site, and the Somerset Levels and Moors SPA and Ramsar Site.

The predicted adverse effects will be as a result of coastal squeeze, causing the progressive loss of habitats and their associated species through sea level rise against coastal defences. In order for the SMP to be progressed it will be necessary to demonstrate that no alternative solutions exist and that the plan is necessary due to imperative reasons of overriding public interest ('IROPI'). Through this process, it will also be necessary to demonstrate that appropriate compensation measures can be put in place to offset any habitat losses. New estuarine/intertidal habitat can be created through managed realignment and this will be achieved through the *Severn Estuary Flood Risk Management Strategy Habitat Delivery Plan*, which is currently being developed by the Environment Agency. The Coastal Group will be committed to ensuring that such measures are implemented to ensure that there are no net adverse effects on integrity of European sites as a result of SMP policy. The IROPI case will be combined with that for the Severn Estuary SMP2, as similar effects are predicted for both SMPs. There will also be the requirement to undertake further assessment for individual schemes as they are progressed, to ensure that no effects on international sites will occur.

There are often conflicts between allowing the coastline to evolve naturally (benefiting marine or intertidal habitats) and maintaining designated terrestrial/freshwater sites on the land. In such areas, any SMP policy will result in some loss of habitat. Careful management of the shoreline between Hartland Point and Anchor Head will therefore be necessary to manage the designated habitats in place wherever possible, while managing and adapting to changes due the impact of future sea level rise. Some habitat losses will occur due to sea level rise as the frontage reacts to increasing pressure. Where habitats are constrained by natural features, such as hard cliffs, there may be a loss of intertidal area. However, often this will not be a result of SMP policy but would occur due to natural change with or without the SMP.

Earth Heritage, Soils and Geology: The proposed SMP seeks to support natural processes and maintain the visibility of and accessibility to geological features, as well as the conservation value of the nationally important earth heritage sites wherever possible. There are, however, some areas where continued protection of towns or villages is required and in some of these areas the SMP policies may damage geology or earth heritage features. In general, the SMP is not recommending the construction of new defences to maintain economic assets in areas where none are currently present.

Air and Climate: No impacts on air and climate are anticipated as a result of the preferred SMP.

Water: In most areas along the coastal frontage, the preferred SMP policy provides protection from flooding or erosion to the majority of potentially polluting sites such as landfills. However, there are a few areas where flooding or erosion of landfills may be experienced and will therefore require further study at project level if a policy of no active intervention is adopted.

Landscape Character and Visual Amenity: The proposed 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 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 Heritage Coast. However, it is recognised that loss of some coastal properties, 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. Measures may be needed to remove such structures, particularly if they also pose a health and safety risk.

A hold the line policy involving pro-active management of the existing beaches and defences is still required in some areas to protect urban areas and this can result in changes to landscape character and negative effects on views for people living, working or visiting the area.

Generally, the SMP policies conserve nationally designated landscapes and avoid conflicts with AONB Management Plan or Heritage Coast objectives, though localised changes in landscape (e.g. landscape changes resulting from the potential loss of coastal features) will need to be considered further at a more detailed level when approaches to delivering policy are determined.

Historic Environment 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. Where heritage assets would be protected through implementation of the SMP, opportunities will be sought at scheme level to improve the condition of heritage sites and features, where appropriate.

However, along some stretches of coastline where changes in management policy are proposed, 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 Gallantry Bower, Windbury Head, Marison Castle and Brazen Ward;
- Small areas of Registered Parks and Gardens e.g. Tapeley Park and St Audries Bay,;
- Grades I and II Listed Buildings;
- Conservation Areas e.g. Dunster and Dunster Castle, Bossington, Woolacombe and Bucks Mill;
- Potentially nationally important non-designated archaeological assets; and
- Other archaeological features that would require consideration at the scheme level including regionally and locally non-designated archaeological assets and HER features, historic landscapes and palaeo-environmental deposits.

Land Use, Infrastructure and Material Assets: For much of the coastline, the SMP policies will not affect critical infrastructure such as the mainline railway and the M5. However, it will become increasingly difficult to minimise the risk to infrastructure and material assets in some areas in the long-term as sea level rise causes holding the line to become less acceptable due to economics, technical sustainability and environmental acceptability.

The proposed SMP policies are generally beneficial to industrial and commercial premises and/or activities, by protecting areas of significant development from flooding or erosion, including harbour infrastructure at Minehead. However, some isolated industrial or commercial facilities may be affected, as policies leading to a more 'natural' and sustainable shoreline in the long-term are implemented.

As the South West Coast Path (and the similar coastal trails in the South West) lies close to the edge of the cliff or coastal area, the preferred SMP policies may result in the erosion to this asset. These losses are likely to be offset by the re-routing of the path

Under the preferred policies there could be loss or damage to approximately 14800 hectares of agricultural land (Grades 1-5), which will remain at risk of flooding, even where low-level defences are present, by year 2105.

Population and Human Health: For much of the coastline, the preferred SMP policies will maintain protection where cost-effective to do so 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. The proposed SMP policies will protect many residential properties in large urban areas that would be at long term risk of loss. However, there are some areas where isolated properties, caravan sites, holiday centres and urban areas exist (e.g. at Brean, parts of the Parrett Estuary, Steart Peninsula, Lilstock, Doniford, Blue Anchor Bay, Porlock Weir, Lee Bay, Putsborough and Vention, Croyde Bay, parts of the Taw-Torridge Estuary and Bucks Mills) but may experience losses in the future as a result of flooding or erosion through allowing the coastline to retreat naturally.

For the preferred policies, the total loss of housing to coastal erosion within the SMP area over the 100 year planning horizon covered by the plan, is approximately 19 residential and commercial properties. This compares to the no active intervention scenario when potential erosion losses of up to 325 residential and commercial properties could occur over the same period. The preferred policies therefore deliver coastal erosion protection to over 300 'at risk' residential and commercial properties over the next 100 years. As significant parts of the SMP frontage are very low lying, overtopping, overflowing or breaching of defences, even where flood defences are maintained, could lead to wide-spread flooding, with over 26,900 residential properties and over 3,700 businesses at risk from flood damage.

Under the preferred long-term policies, the key centres of tourism and recreation (e.g. Clovelly, Westward Ho!, Ilfracombe, Combe Martin, Lynmouth, Minehead, Burnham-on-Sea and Weston-super-Mare) will continue to be protected. There may still be a detrimental impact on tourism through loss of beaches, where it will become increasingly technically difficult to retain beaches as sea levels rise causing beaches to narrow. Therefore any areas where future defences can be implemented in a way that retains beach resource are likely to become increasingly important as tourism assets for the wider region.

1.7 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 and erosion 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 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. Details of the steps to be taken in advance of the next SMP review are set out in the SMP Action Plan.