

# State of the Solent Edition 3:

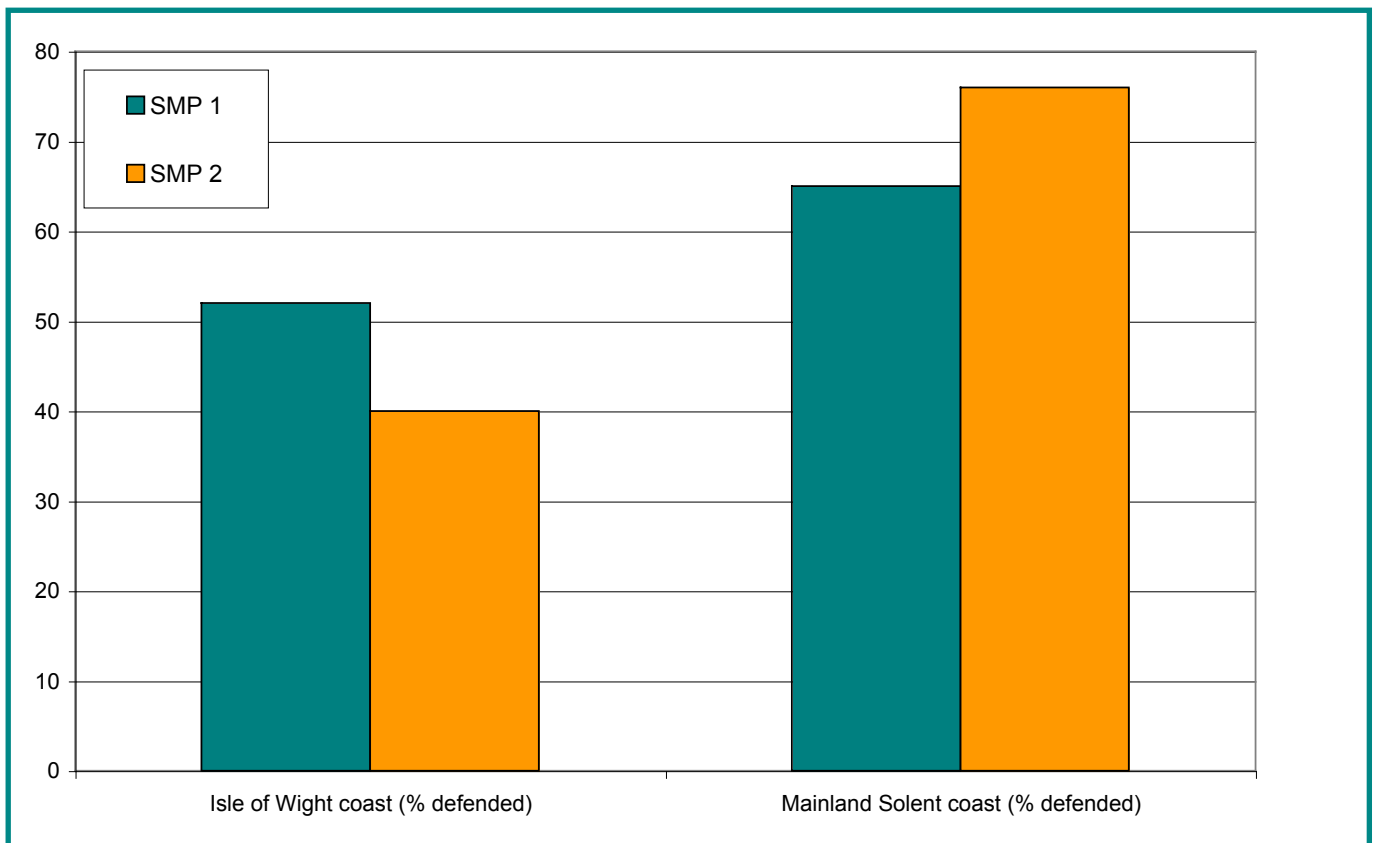
## 10. Coastal Risk Management Indicators



The Solent coastline is protected by coastal defences along most of its length, reflecting the substantial urban population living in the coastal zone, together with commercial and other properties. The historic trend in coastal defence has been for the progressive construction of walls, groynes and other 'hard' defences to prevent erosion and flooding. These have caused considerable modification to the natural systems, altering the fundamental geomorphological processes. In recent times, there has been a change in policy from that of 'holding the line' and hard sea defences to returning the coastline to its natural dynamic state and looking at strategic long term solutions.

The aim in the Solent Forum's 'Strategic Guidance for the Solent' for coastal defence is 'to achieve a long term approach to the management of the Solent's shorelines, which will promote conservation of the natural system in balance with the proper protection of human life and property'.

### Indicator 10.1: Length of protected and defended coastline in the Solent

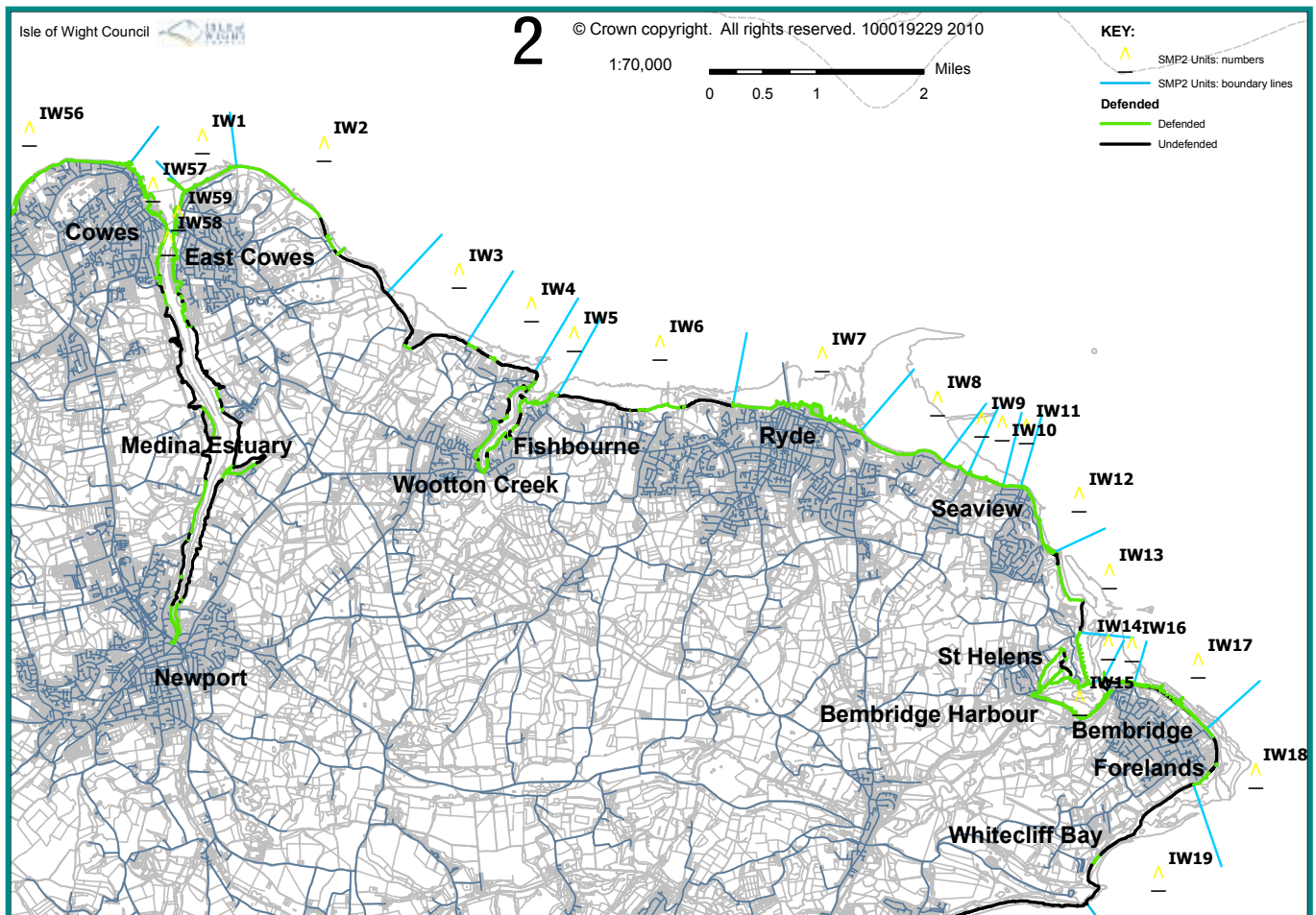
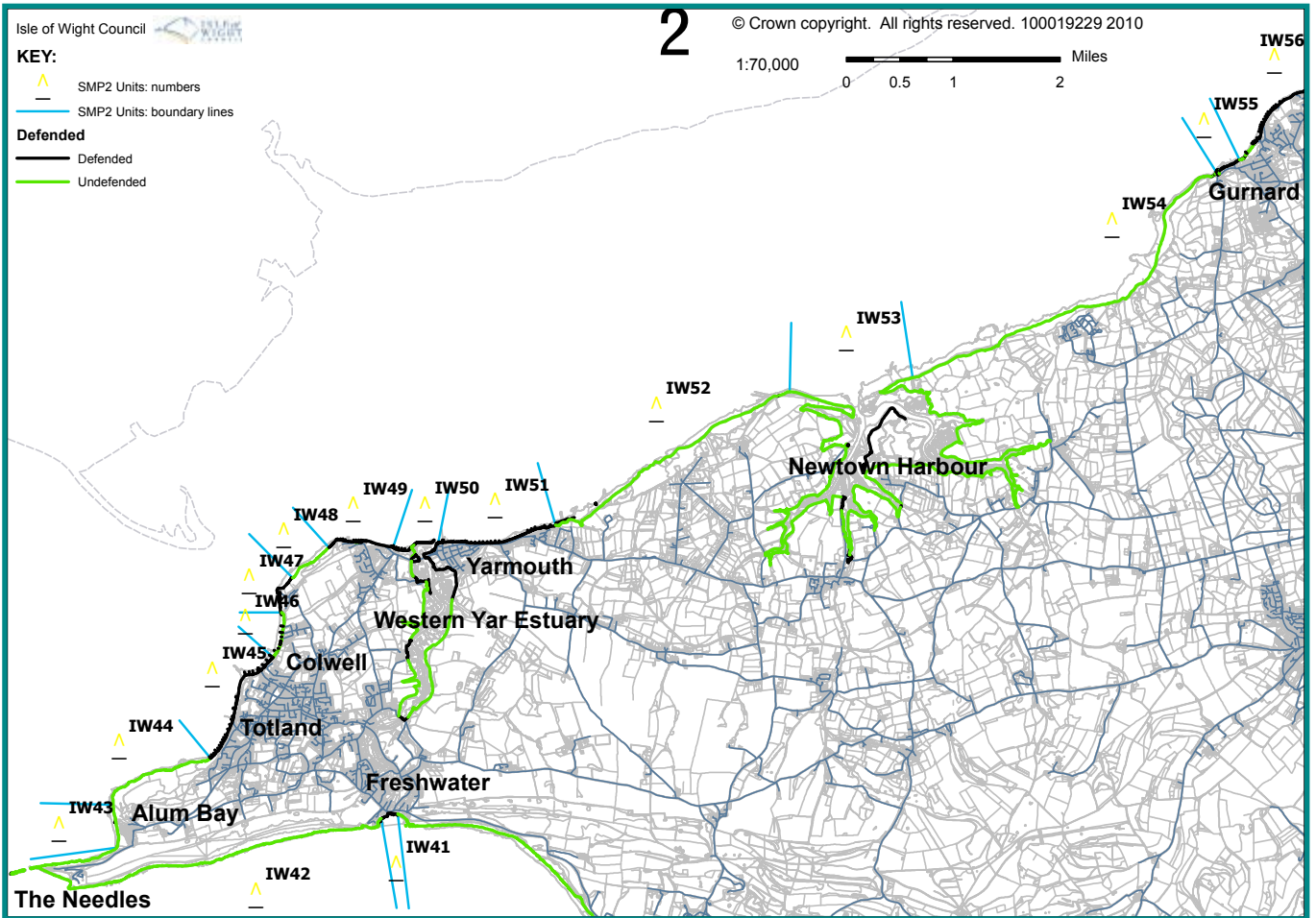


Source: Shoreline Management Plans

### 10.1 Reason for indicator selection

As the coastline of the Solent has been developed, sea defences have followed to ensure that property and infrastructure is protected from the risk of flooding. This develop and defend cycle is unsustainable. Shoreline Management Plans (SMPs) are produced for all areas around the coast of England. They provide a large scale assessment of the risks associated with coastal processes and present a long term policy framework to reduce these risks to people and the developed, historic and natural environment in a sustainable manner. The first generation of SMPs for the Solent were produced in 1988. The second generation were published in 2010.

# 10.1 Coastal areas defended on the north coast of the Isle of Wight



In recent years, as understanding of coastal process has increased, there has been a change in thinking and hold-the-line is no longer the default policy. There are increasing policies of 'no active intervention' and managed retreat. As these policies are implemented and there is a change in the coastline to a more dynamic natural state, the percentage defended will change.

## 10.1 Where does the data come from?

The data is from the first and second round of shoreline management plans.

## 10.1 What the indicator shows

For the mainland Solent coast the amount of coastline defended has increased about ten percent with approximately seventy eight percent of the mainland coastline now defended. This is not a surprising figure considering the level of development around the Solent. For the north coast of the Isle of Wight, the amount of coastline defended has decreased by just over ten percent, with forty percent of the Solent coast of the Isle of Wight being defended. It should be noted that while the SMP2 included estuaries, these were not included in the first generation SMPs. The inclusion of these areas may have altered the figures between the two plans. The changes could also be due to policy revisions, and the percentage of coastline defended should be considered with the supplementary information on changes in policy between the plans.

## 10.1 What are the implications for coastal planning and management

The SMP provides realistic and achievable policies for coastal defence that are in accordance with current legislation and constraints. The policies are technically sustainable, environmentally acceptable and economically viable. The information within the SMPs must be used and incorporated within the land-use planning system in the Solent.

### Supplementary information: change in coastal management policies over time

To supplement indicator 10.1 (length of protected and defended coastline) details on the change in policies used in the shoreline management plans over time has been included. See charts 1 and 2 below.

### Supplementary information: What the data shows

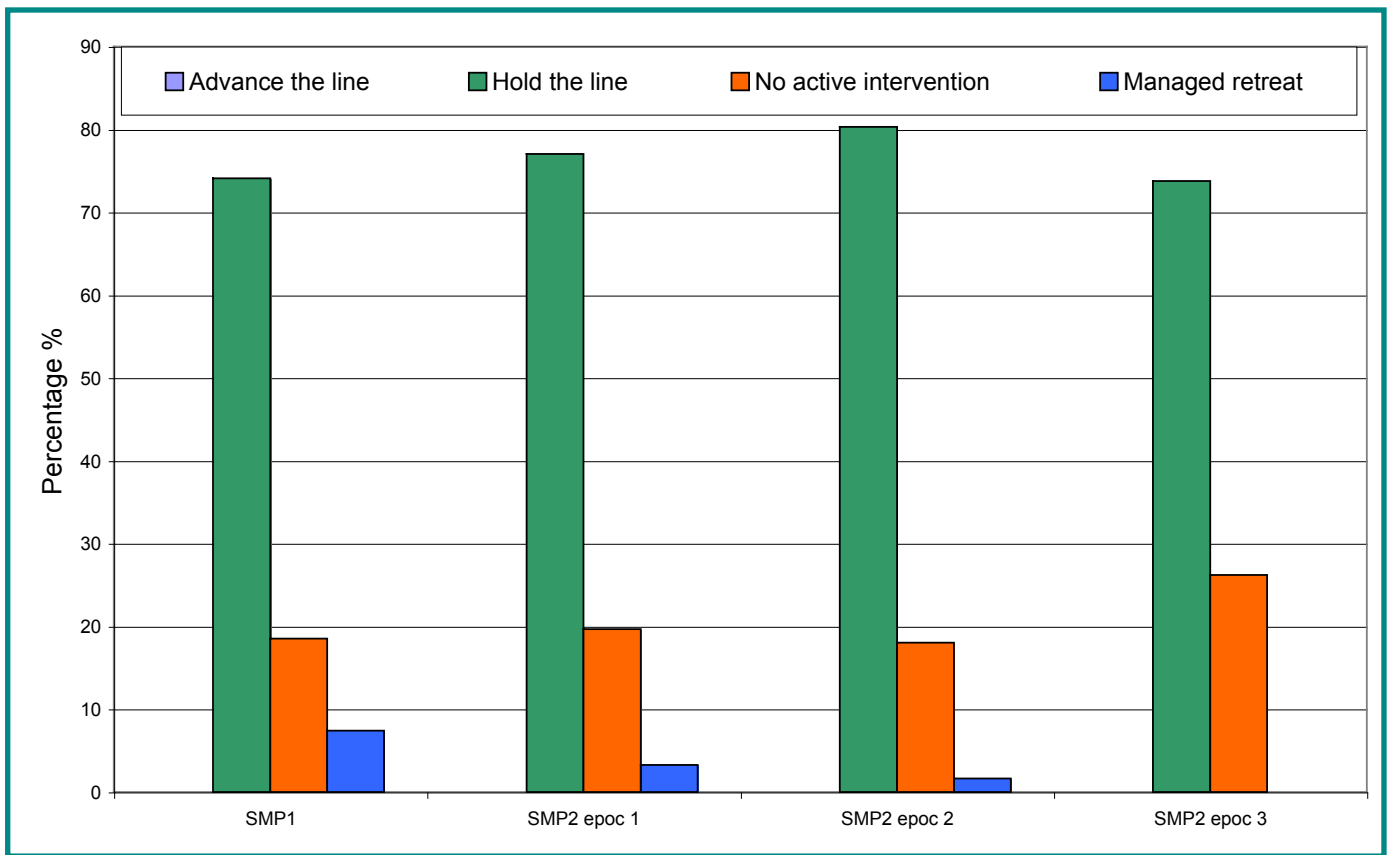
For the mainland Solent coast the policy used the most is that of 'hold-the-line'. That is to defend the coastline. This policy increases in percentage from the SMP1 to the SMP2 but then drops slightly in the third epoch (50 to 100 years) of the SMP2. For the Solent coast of the Isle of Wight, the main policy (fifty seven percent) in the SMP 1 was also that of 'hold-the-line'. However in the SMP2 and looking to 50 to 100 years in the future, this percentage drops to thirty eight percent. In fact the main SMP2 policy for the third epoch is that of 'no active intervention'. For both the Isle of Wight and mainland coast of the Solent, there is a gradual increase in the policy of 'no active intervention' and a decrease of hold-the-line.

### Future work

A possible future indicator would be Coastal Change Management Areas (CCMA) which will be identified by local planning authorities. These are areas where no active intervention will occur. The number and location of these areas could be used as the measure for the indicator.

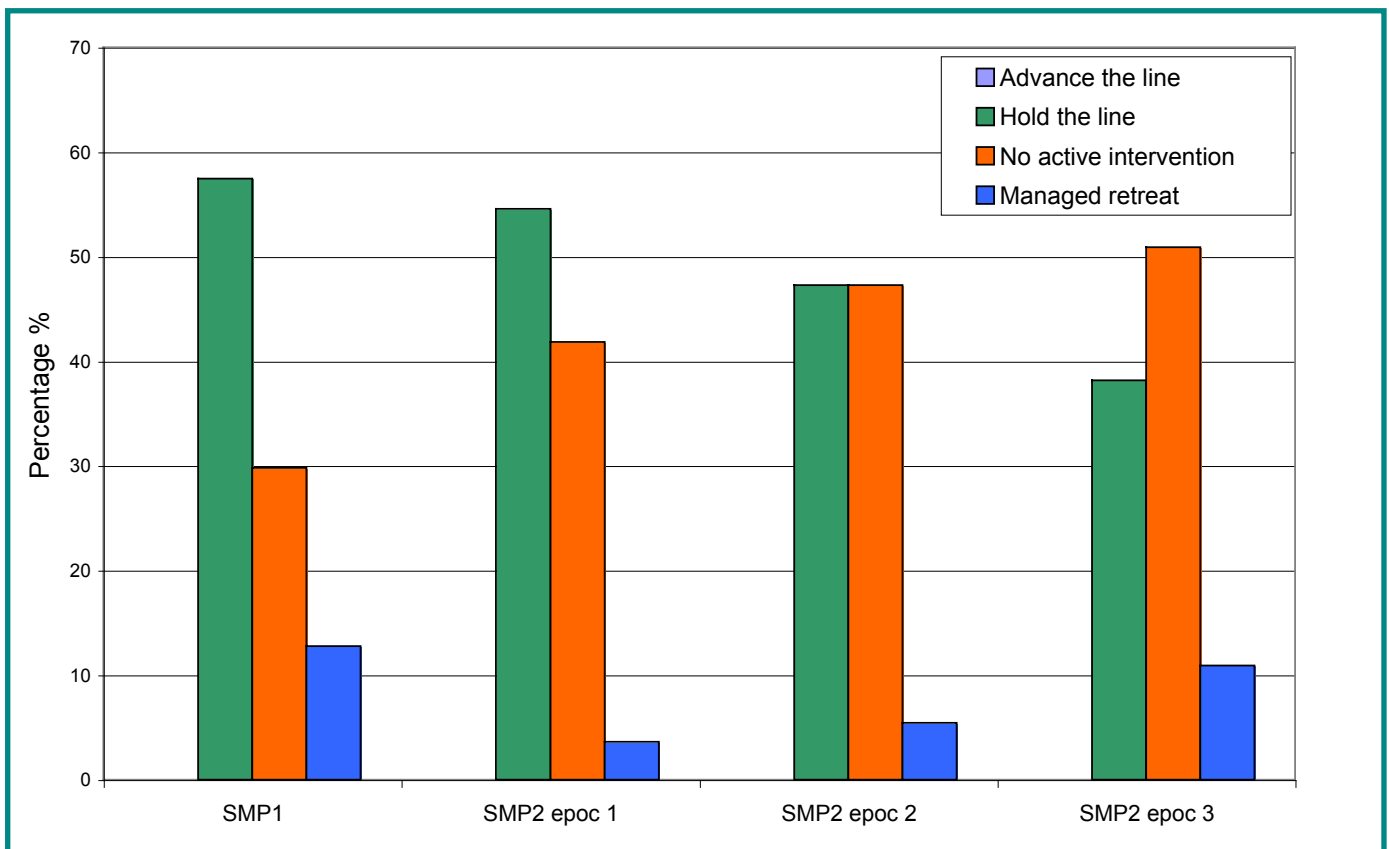
## Supplementary information: changes in coastal management policy

### Chart 1: Mainland



Source: Shoreline Management Plan

### Chart 2: Isle of Wight



Source: Shoreline Management Plan



## Links

- Isle of Wight Shoreline Management Plan: [www.coastalwight.gov.uk/smp/](http://www.coastalwight.gov.uk/smp/).
- North Solent Shoreline Management Plan: [www.northsolentsmp.co.uk](http://www.northsolentsmp.co.uk).
- Coastal Change Management Areas: [www.communities.gov.uk/documents/planningandbuilding/pdf/1498576.pdf](http://www.communities.gov.uk/documents/planningandbuilding/pdf/1498576.pdf).

## Footnotes:

<sup>1</sup>The 'No Active Intervention' (NAI) policy scenario assumes there is no expenditure on maintaining or improving existing coastal and flood defences throughout the North Solent SMP area. Therefore defences will fail at a time dependent upon their residual life and the condition of the fronting beaches and inter-tidal areas.