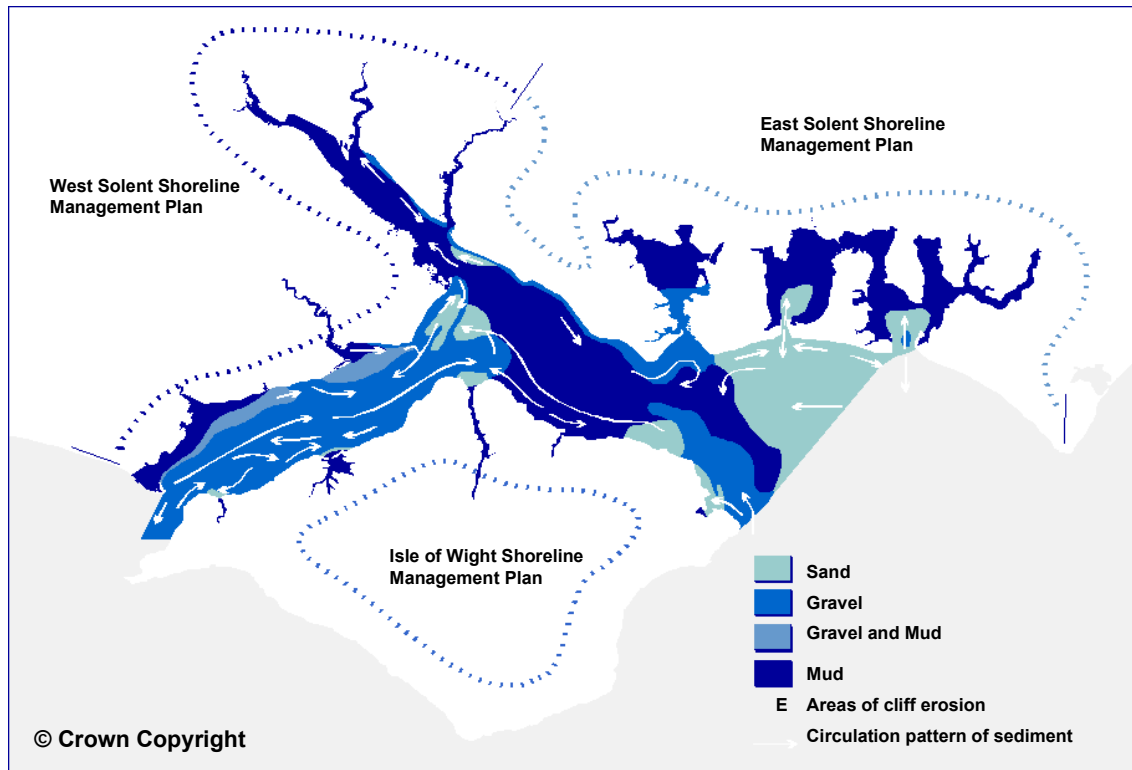


COAST PROTECTION AND SEA DEFENCE

Long-term aim: 'to achieve a long term approach to the management of the Solent's shorelines, which will promote conservation of natural systems in balance with the proper protection of human life and property'.



KEY FACTS:

- More than half of the Solent coastline is defended from erosion or flooding.
- The best guess is that sea-level will rise by 32cm in the next 50 years.

The Position

Responsibilities for defending the coast from the effects of the sea are split into coast protection (preventing coastal erosion), which lies with the district and unitary councils, and sea defence (protection from flooding) which lies with the Environment Agency. The responsible department within the government is the Ministry of Agriculture Fisheries and Food (MAFF), who co-ordinate overall policy and have a major role in funding works.

The Solent coastline is defended along most of its length, reflecting the substantial urban population living within the coastal zone, together with the number of commercial and other properties. The historical trend in coastal defence has been for the progressive construction of walls, groynes and other works to prevent erosion and flooding. These have caused considerable modifications to the natural systems by altering their fundamental geomorphological processes.

There has been increased acknowledgement of long-term problems being created by uncoordinated coastal defence policies, and the need to seek solutions which work with natural processes. In recognition of this issue, the Standing Conference on Problems Associated with the Coastline (SCOPAC) was established in 1986. It provides a forum for co-ordinating coastal defence policy in Dorset, Hampshire, Isle of Wight and West Sussex, and represents one of the earliest initiatives towards coastal zone management in the country. SCOPAC meets three times annually, and co-ordinates a research programme.

More recently MAFF have promoted the production of (non-statutory) Shoreline Management Plans based on sediment sub-cells which will propose long-term policies, and provide a basis for future priorities. There should be three SMPs completed within the Solent by the end of 1997, representing complete coverage of the region's coastline. The areas covered are as follows:

- West Solent (Hurst Spit - River Hamble)
- East Solent (River Hamble - Selsey)
- Isle of Wight

The most significant trend affecting future shoreline management is progressive sea-level rise, as demonstrated by reference to geomorphological and archaeological data. This is a long-term natural feature of the region, however, the rate of change is expected to increase as a result of predicted climate change. MAFF estimate a mean sea level in the Solent of 6mm per year resulting in a rise of c.32cm by 2050. Climate change is also predicted to affect the incidence of storms and extreme water levels.

One of the greatest effects of sea-level rise on defended coasts is the loss of intertidal habitats as they are squeezed against the sea wall. The recorded rates of erosion in parts of the system are measured at 6 metres per year, but the full causes and the means of responding are not well understood.

What do we need to do?

1. Complete the initial programme of Shoreline Management Plans, confirm their status, and how they will be implemented

The initiative to produce Shoreline Management Plans (SMPs) in order to guide future coastal defence policies is welcome. It should enable a better overview to be taken of issues than in the past, and assist in the establishment of long-term policies. The plans still need to be finalised and the mechanisms for implementation remain to be clarified. Issues which require resolution as the plans mature include the following:

- the status of the plans with regard to grant applications for coastal defence remains unclear. The Ministry of Agriculture, Fisheries and Food should provide a clear statement of the way in which it intends to use the SMPs in reaching decisions on funding;

- the role of so called strategy plans in developing the proposals of the SMPs further into agreed schemes needs to be clarified. The areas of coastline which require Strategy Plans will need to be compatible with the management units identified in the SMPs.

LEAD ROLE: MAFF.

Local authorities (responsible for coast protection) and the Environment Agency, as the sponsors of the SMPs will need to:

- formally adopt the SMP's if the plans are to have any status as technical documents which support and inform the statutory planning process;
- ensure that proper consultation with the different interests affected by the SMPs is carried out, and that the overall strategy and proposals within the plans are open to challenge. SMP consultation should complement public consultation which will take place over individual schemes in the future, and over planning policies;
- clarify the status of the plans with regard to their policies for both future coastal defence schemes to be proposed, and the future planning policies. The formal adoption of SMPs by local authorities should be considered;
- ensure that the SMPs consider strategic coastal defence issues, and that consistency between adjacent plans is achieved;
- consider the value of establishing coastal zone management plans as a mechanism for integrating the policies and prescriptions of the SMPs with other concerns.

LEAD ROLE: Local authorities and the Environment Agency.

2. Put in place land-use planning policies to support effective long-term management of the shoreline

There are strategic and local land-use planning implications for the town and country planning system which are arising from the SMPs, particularly with regard to the response to sea level rise and climate change. These need to be identified and considered by the local authority planning departments in agreeing future policies. It would be helpful for the SMPs to identify specific land-use planning issues to be considered within revisions of local and structure plans.

LEAD ROLE: Local authorities and the Environment Agency.

Planning policies for the Solent should ensure that development does not take place which will increase the need for further coastal defence works within the system. Significant intensification or extension of development within areas at risk from erosion or flooding should not be permitted in line with Government planning guidance. Additionally, continued and improved information on the location of these areas is required. Development at the coast should incorporate suitable access to the shoreline to allow maintenance of defences. Policies should also seek to prevent the development of new sea defences where these might prejudice future options for response to sea-level rise.

LEAD ROLE: Environment Agency for flood risk, District and Unitary Councils for erosion.

3. Develop a co-ordinated long-term response to sea level rise and climate change

Stage one is to evaluate what impact sea level rise will have on the natural systems of the Solent such as, inter-tidal areas, low lying unprotected land, unprotected soft cliffs, ground water levels and salinity. To carry out this work co-operation is needed from a number of organisations with the impetus coming from either MAFF or the DETR.

LEAD ROLE: SCOPAC as recognised regional coastal defence group, Solent Forum as a regional lobbying body, MAFF and DETR.

Global warming, and the resulting sea-level rise and increased storminess pose a major challenge for implementation of sustainable coast defence policies in the medium term. It appears inevitable that unless managed setback of the coastal defence line is seriously considered in some locations, there will be significant loss of internationally important habitats and wildlife from the Solent. Equally there will be increased needs for recharge and recycling of sediments within 'soft engineering' defence solutions, including the beneficial re-use of maintenance dredgings within the sediment systems. A marshalled and focussed agenda is required in response to this issue. It will need to achieve all of the following objectives within a 10-15 year target timescale:

- clarification of the extent of sea-level rise and the predicted losses of habitat, and timescales;

- confirmation of the technical feasibility of responses, including setback of defences, and recharging of intertidal areas;
- establishment of new land-use policies which protect future options for an effective, sustainable response to be made;
- confirmation of the costs of response, and means of meeting them, including mechanisms to compensate private landowners where affected;
- public and political awareness of the reality of sea level rise, and the need for a response to it to include setback of a defence line;
- consideration of the implications of different response options on the existing wildlife resource, including important sites protected by sea walls, and the provision of habitat compensation to maintain coastal wildlife resources;
- a national policy regime which permits an effective response to sea-level rise to be put into practice.

LEAD ROLE: This is a critical issue for the Solent which should be given a particularly high priority. SCOPAC has a key role to play in promoting a co-ordinated approach. The Environment Agency and English Nature should consider taking a lead on investigating the technical feasibility and implications of the different response options.

KEY ORGANISATIONS: COAST PROTECTION AND SEA DEFENCE

Lead organisations

MAFF
 Environment Agency
 Southampton City Council
 Portsmouth City Council
 Isle of Wight Council
 Chichester District Council
 New Forest District Council
 Eastleigh Borough Council
 Gosport Borough Council

Fareham Borough Council
 Havant Borough Council
 SCOPAC

Other key organisations

English Nature
 Southern Sea Fisheries District
 Hampshire County Council
 West Sussex County Council
 Chichester Harbour Conservancy
 Langstone Harbour Board