
3 Management objectives and Units

3.1 Introduction

This section presents the broad shoreline management objectives applicable to the East Solent SMP area and sets out the basis for strategic management of the harbours. In contrast to the open coast, the harbours are not divided into Management Units covering discrete lengths of coast. Instead each harbour is classified as a single Unit, and is then divided into sub-units according to a standardised set of seven shoreline management types.

3.2 Management objectives

The major objective for the East Solent, in common with all other parts of the coastline of England and Wales is to develop and implement sustainable coast defences in line with the Government's Flood and Coastal Defence Policy Aim, defined as:

“To reduce risks to people and the developed and natural environment from flooding and coastal erosion by the provision of technically, environmentally and economically sound and sustainable defence measures”

with the primary Policy focus on:

“The protection of life and hence of urban areas.”

The following important factors relating to the East Solent area have been considered in setting the broad management objectives:

- Large areas are below predicted extreme sea levels and are potentially at risk from flooding.
- Most of the open shoreline is subject to erosion due to the soft surface geology, a lack of available drift material to form stable beaches and a large scale, long term shoreline instability in relation to the wave and tidal climates.
- Much of the coastal area is heavily developed and contains important infrastructure and military facilities.
- Undeveloped areas and the intertidal zone contain considerable environmental assets, including substantial areas subject to protection by the European Union Habitats Directive and other international environmental legislation.
- Much of the shoreline has been protected previously, resulting in land use which is now dependant on continued protection.
- Statutory and non-statutory controls apply to operations affecting the natural environment, navigation, historic sites, high grade farmland, geological exposures and the landscape.
- The shoreline and nearshore zone is heavily used for recreation.
- Sediment transport on much of the open coast is subject to reversals of direction, sometimes lasting for several years, making predictions of the sediment budget and future beach development subject to wide confidence limits.
- The coastline is dissected by the harbour entrance channels, hence continuity of littoral transport is affected by tidal influences and the need for maintenance dredging.
- Long term climatic changes could reverse drift directions and could increase the risk of breaching, damage to shoreline structures and overtopping.
- The rate of local sea level rise is predicted at between 6mm/year and 13mm/year.

Based on these factors, the broad objectives for shoreline management are:

- To protect human life.

- To protect existing developed areas and infrastructure, subject to benefit/cost analysis, taking account of long term environmental as well as socio-economic factors.
- To ensure that management operations comply with statutory obligations with respect to the natural environment, navigation and cultural heritage.
- To implement management operations that allow for future flexibility in response to changes in physical conditions and in economic or social circumstances.
- To implement management operations that recognise the value of retaining or enhancing the quality of life, the natural environment and the landscape.
- To manage the shoreline with due consideration to potential impacts on adjacent areas.
- To restrict future property or infrastructure development except in areas:
 - already adequately protected due to existing development
 - where there is no existing or future risk from flooding or erosion
 - where development will not significantly affect the natural environment.
- To continue or expand the existing monitoring operations to ensure that future management can be based on a fuller understanding of coastal processes, flood and erosion risks, environmental development and changing social aspirations.

3.3 Management Units

Shoreline management within the harbours is not compatible with the accepted SMP approach. Unlike a length of open coast, the shorelines of the East Solent harbours are not dominated by high energy processes acting over long lengths of similar coast. Management operations along one harbour frontage will not normally have implications for coastal defence along adjacent frontages except where flood risk areas extend over large areas. Therefore the SMP approach of dividing the coast into discrete Management Units with coherent characteristics in terms of coastal processes and land assets does not provide an appropriate basis for management. The harbour shorelines are very complex in terms of nearshore bathymetry, natural protection by saltmarshes, exposure to wave attack, land use, natural habitats, recreation developments and the historical development of shoreline structures. If management units were proposed in the same manner as applied to the open coast then they would range in length from as little as tens of metres to several kilometres.

An alternative approach has been adopted for the East Solent harbours. Each of the four harbours are classified as single Management Units, which are then divided into sub-units which can be managed in a co-ordinated way. These sub-units are defined from a set of seven shoreline management types based on the existing or potential risk of flooding or erosion and the land assets affected by these risks.

Table 2 summarises the management types. Figures within each harbour plan indicate the sub-units that are subject to these management types.

Table 2 Harbour management types

Type	Risk	Land asset
1	No existing risk or minor flooding/erosion	Undeveloped areas able to tolerate occasional flooding or minor erosion, no existing protection
2	No existing risk	Developed or sensitive areas not threatened at present, no existing protection
3	Erosion	Undeveloped areas above flood levels, existing protection
4	Erosion	Developed or sensitive areas above flood levels, existing protection
5	Flooding	Undeveloped or insensitive areas, existing protection
6	Flooding	Developed or sensitive areas, existing protection
7	Not defined	Shoreline formed by jetty or other structure designed for a purpose other than shoreline defence

As with any simple classification system, there are frontages that are on the borderline between two types. The distinction between flooding and erosion is based on assumed land levels and risk, so that where erosion may lead to flooding the frontage is classed as 5 or 6 rather than 3 or 4. The distinction between undeveloped and developed risk area is clear with respect to existing major transport routes and housing within the assumed flood or erosion zone, but is more ambiguous when the development comprises commercial, agricultural or recreational assets with few, if any, permanent homes. The distinction between sensitive and insensitive undeveloped areas is also subjective, with clear definition only applicable to land fill sites containing contaminated material. The sensitivity of agricultural land, recreational areas and areas of recognised environmental importance is open to conflicting views.

The implications of the seven management types are discussed in detail later. Standard preferred options are applied to each management type for frontages where there is little question of the preferred approach. Frontages subject to ambiguous sensitivities or uncertain risk are identified and discussed individually, giving consideration to the views expressed in the Consultation process.