

**PART 4 : GUIDE TO AREAS AND MANAGEMENT UNITS**

**(USE OF THE PLAN)**

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**1 INTRODUCTION**

This Part describes the key elements of the Plan format with respect to presentation of the recommended strategies as detailed in Part 5 of this document. Key definitions of terms used throughout this document in the description of Areas and Management Units are included. Particular focus is given to the way in which strategies have been evolved and presented. The nature of data contained on the maps prepared for each Management Unit is also described.

**2 AREA STATEMENTS**

Part 5 of this document contains the developed strategy for management of the Plan shoreline. This assessment and development of management strategies is presented in Area Statements which encompass Management Unit Statements, with accompanying Maps. The sub-division of each Statement is clarified by different colour pages (Area Statements are presented on yellow paper and the appended Management Unit Statements are presented on blue pages).

The Area Statements produced for this coastline provide a synopsis of the main characteristics for the area covered by each Area, summarising the details discussed in greater length in Volume 2 and mapped in Volume 3. The key strategic issues relating to each Area are identified and the sub-division of the coast presented. A final summary of the key features of the individual frontages, within each Area, and the recommended strategy for their defence, is then presented.

The Area Statements contain descriptions of the characteristics of the coastline providing a summary of the factors which are to be considered in the development of any strategy. More comprehensive statements of the existing characteristics would result in overly long sections of text and detract from the main elements of this document, ie the developed strategy. A more detailed description of the various issues can be found in Volume 2 if required. The sections in Volume 2 where such detailed information may be referenced are indicated against the headers of the outlines given below.

**2.1 "GENERAL DESCRIPTION"**

This gives an overview for each Area, identifying it's defining characteristics. These include features such as the morphology of the coastline along with levels of human use, and environmental and historic interest.

**2.2 "ADMINISTRATIVE AUTHORITIES"**

Identifies those Local Authorities with responsibilities in the Area.

**2.3 "COASTAL PROCESSES (Vol 2: Part 1)"**

This summarises the key physical features of the Area as they relate to shoreline management. This basically includes potential sources of beach sediments, the processes of sediment transportation, and the implications of these for future shoreline evolution.

**2.4 "COASTAL DEFENCES (Vol 2: Part 3)"**

This identifies the locations, within the Area, where there are existing coastal defence structures.

**2.5 "NATURAL ENVIRONMENT AND CONSERVATION (Vol 2: Part 3)"**

**2.5.1 "Interaction between Coastal Dynamics and Natural Environment"**

This describes the features of the physical environment of the Area which are integral to the formation and maintenance of it's key environmental features.

**2.5.2 "Opportunities for Enhancement"**

This identifies those features of the natural environment of the Area which may, in some way, be improved through tailored shoreline/coastal management techniques.

**2.6 "DEVELOPED ENVIRONMENT (Vol 2: Part 3)"**

This identifies the land use, human environment and development features of the Area. Features such as population, employment, economy, tourism, recreation and archaeological interest are reviewed in relation to shoreline management.

**2.7 "PLANNING (Vol 2: Part 5)"**

This section identifies a table of the planning policies of relevance to the coastline of the Area. These are presented under the headings Coastal Defence Policies; Coastal Development Policies; Conservation and Environmental Policies; and, Sand Extraction, Dredging and Disposal Policies.

**2.8 "MANAGEMENT STRATEGY"**

The shoreline of each Area is subdivided into a number of frontages, each of which has its own distinct management requirements. Details of the key aspects of each frontage, and the preferred strategy for its future management, are described in this section. Where developments or issues exist which may present a conflict of interests, and the need to assess active defence options, more detailed Management Unit Statements have been prepared. These are appended to the Area Statement.

For the estuarine frontages a Management Statement has been prepared, and this is presented at the appropriate position within the Area Strategy. The statements set out a framework for the sustainable management of each estuary, with which the individual coastal defence strategies should comply.

It should be noted that the preferred strategy for much of the coastline is *do nothing*, with primary reasons stated for each frontage. This does not necessarily mean that minor, localised, defence works would not be permitted, nor that such works where they already exist cannot be maintained by their owners. Any such works must, however, not be detrimental to other interests and will need to be agreed with the relevant bodies. Where such works are not permitted, these sites have been identified as *non-intervention* lengths. In some locations dune management is recommended alongside do nothing. In these cases, such management is not necessary for coastal defence but is proposed for other reasons such as environmental and amenity benefits.

### 3 MANAGEMENT UNIT STATEMENTS

Appended to each Area Statement are individual Management Unit Statements. These provide more detailed information on specific characteristics related to that Unit and detail the strategy assessments that have been carried out, leading to the recommended preferred options.

The statement provides a detailed description of the Management Unit frontage identifying the key issues to be considered in the assessment of management strategies, the assessment itself, and implementation guidance. This is presented as follows:

#### 3.1 "KEY CHARACTERISTICS"

##### 3.1.1 "Location"

This describes the limits of the Management Unit, along with the key features which define it.

##### 3.1.2 "Administrative Authority"

Identifies the Local Authority areas within which the unit is located.

##### 3.1.3 "Nature of Existing Defences"

Gives a brief summary of the nature of any coastal defence structures in the unit, and what they protect.

##### 3.1.4 "Description of Beach"

This section gives a series of statements describing the natural defence fronting the unit. Beach form and beach sediments are reviewed, along with long-shore and cross-shore variations. Also included is a statement of the relative proportions of quartz, lithic (rock) and shell material in the sand portion of the beach sediments, with the levels stated as percentages. In addition to geographic positions (eg E for East), two key abbreviations used in the descriptions are as follow :

UFS	Upper foreshore
LFS	Lower foreshore

##### 3.1.5 "Key Processes"

The primary intention of this section is to explain the sources of beach material for the unit, and establish whether these are contemporary processes, considering also the affects of existing defence provision.

##### 3.1.6 "Development at Risk"

The human assets considered to be at risk from either erosion or flooding, in the long term, are identified here. This assumes a 'were no defences present' scenario, in order to provide a baseline against which the benefits of coastal defence provision can be assessed.

**3.1.7 "Natural Environment/Conservation"**

This section identifies the valuable habitats, species, geology and landscape features of the frontage, along with any relevant designations.

**3.1.8 "Human Environment"**

Within this section the key aspects of human use of the shoreline, both past and present, are identified. The historic features of the frontage are presented, along with contemporary uses such as recreational, tourist and industrial industries and any particular features, such as slipway access, which these are reliant upon.

**3.2 "STRATEGIC OPTIONS"**

**3.2.1 "Implementation Lengths"**

In order to achieve the coastal defence objectives for the Management Unit, it will often be necessary to implement a range of coastal defence options over discrete lengths. These Implementation Lengths are sub-divisions mainly relating to local changes in land use, assets, or risk (ie flooding, erosion), and are defined as:

*"a length of shoreline that requires a specific coastal defence option for the future to meet the overall strategic requirements of the Management Unit"*

This section identifies the division of the unit into Implementation Lengths, numbering them sequentially along the unit, and giving brief details of the nature of the frontage.

**3.2.2 "Options Considered"**

One of the main objectives of the SMP is to assess a range of strategic coastal defence options and determine a preferred approach for each Management Unit, which in this Plan usually consists a series of linked Implementation Length strategies. The selection of the preferred strategy is undertaken in three stages. In this, first, section the suitability of the four generic options to the Implementation Length are initially reviewed. The assessment seeks to identify those strategic options which may be 'acceptable' for the management of an individual length. It is usually obvious that certain management approaches are not suitable on a length of coast. The options deemed unacceptable are discarded from the evaluation at this stage, without further detailed assessment. For example where a length has substantial development to the very edge of the shoreline 'do nothing' will clearly be inappropriate. Also, an 'advance the existing defence line' strategy is not generally an option for serious consideration on a cliffed coast, particularly where there are no development pressures.

**3.2.3 "Assessment Matrix"**

The next stage in the assessment is to test those options remaining, ie those considered possibly acceptable, against the coastal defence objectives for that frontage. Within the matrix the applicable options (those disregarded options are identified by an n/a at the top of their column) are considered in relation to their impacts, both positive and negative, upon the various factors which are influenced by, or influential upon, the condition of the coastline.

The options are reviewed on the basis of their compatibility with the local issues which reflect the core shoreline management objectives (Part 2, Section 4). The aspects tested are as follows: Coastal Processes (core objective 1), including alongshore and local impacts; Natural Environment (objective 3); Landscape (objective 4); Land at Risk (objective 6) identifying those human assets which would be considered 'at risk' from flooding or erosion; and, Human Environment (objectives 5, 7 and 8) reviewing impacts on human use of the coast.

Both the short and long term impacts are considered, where appropriate, with an 'Implement' box identifying either the relevant Implementation Length or, where necessary, the generic method of implementation of that option, as this will often have a bearing on the viability of an option. Within the estuaries a further 'Compliance' box is added, referring to compliance with the Estuary Management Statement (as described in 2.8 above).

### **3.3 "STRATEGY"**

#### **3.3.1 "Preferred Strategic Options"**

The final stage in the assessment is selection of the preferred strategic options. This builds on the impacts matrix assessment to identify the overall acceptability of the options, reviewing also technical soundness and sustainability. Based on this assessment a recommendation is made as to the preferred strategic coastal defence option. This is presented in a table which, for each Implementation Length, identifies both the preferred strategy and any others which might be acceptable.

#### **3.3.2 "Implementation and Monitoring Guidance"**

This section provides guidance on the nature of works and monitoring that should be undertaken to implement the preferred strategy. This primarily concentrates on the short term requirements, although longer term needs have been considered in making the recommendations here.

The first assessment made is a comparison of the standard of service provided by existing defences, with the indicative standard of service which is related to assets at risk. The latter has been derived from MAFF guidance (PAG3, 1998 draft), as presented in Volume 2 : Part 2. The existing standard of service is presently an estimate based upon broad estimates of overtopping damage potential, reported condition and residual life (see Volume 2 : Part 2 and Volume 3 : Part 7). It should be noted that at this stage it was not possible to analyse all defences due to some details not currently being available.

To examine the potential for grant aid eligibility, a broad assessment has been undertaken for individual implementation lengths, in line with current MAFF guidance (Guidance for the Development of a Prioritisation Score, 1997), also presented in Volume 2 : Part 2. This scoring system considers priority, urgency, and economics. Where no works are expected to be required within the next 5 years, a zero has been applied to urgency and a score of 10 assumed for economics (on the basis of a very low cost required for maintenance against the value of the assets protected). It should be noted that grant aid is not available for works which form part of an authorities maintenance regime, or work arising from lack of maintenance and repair.

Based on this scoring, recommendations have been made regarding the possibility of receiving MAFF grant aid (although this in no way suggests that there is any right to grant aid or that MAFF will support a scheme or proposal in any way).

Notwithstanding the general monitoring requirements presented in Part 3 of this volume, any specific monitoring requirements for the unit are also identified here. This will relate to monitoring or assessments required in order to establish either the best long term approach or most appropriate implementation method. Any integrated studies required, relating to coastal defence provision, are also presented.

## 4 MAPS

Maps have been produced for each Management Unit, principally to highlight the issues that have influenced the recommended strategy. These are created at 1:10,000 scale, which enables detailed mapping of a variety of features. Each map, where appropriate, contains the following:

### 4.1 Management Unit and Implementation Lengths

The limits of the defined Management Unit and its component Implementation Lengths are indicated on each map in red. These divisions of the Management Unit are established as described in Section 2 of Part 2 of this document. The number of each Implementation Length is also given.

### 4.2 Land Use

To illustrate both the implications of the strategic proposals and the factors dictating their choice, land use has been indicated on the maps. This has been presented in eight classifications which are generally self-explanatory, although some clarification is useful.

<i>Developed Land</i>	Predominantly residential buildings and associated gardens
<i>Port/Industrial</i>	Industrial buildings; including factories and associated warehouses/storage areas, and harbour/wharf areas/facilities and related infrastructure;
<i>Commercial Centre</i>	Main commercial area of the major developments along the coast, including shops, banks, restaurants, etc.
<i>Agricultural</i>	All land in agricultural use, includes agricultural buildings
<i>Tourist</i>	Holiday camps/parks, caravan/camp sites, etc
<i>Undeveloped Land</i>	Land not modified for human use
<i>Derelict Land</i>	Previously utilised land, no longer actively exploited, includes former mine workings, disused tips, disused quarries, etc
<i>Recreational</i>	Playing fields, golf courses, tennis courts, swimming pools, sailing clubs, etc (including informal recreation areas)

### 4.3 Conservation Designations

The extent of designated nature conservation areas is highlighted. The nature of the designations is not identified on the maps, as this is identified in the Management Unit Statement text, with more detailed mapping presented in Volume 3 : Part 3, and designation sheets appended to Volume 2 : Part 4.

### 4.4 Archaeological Sites

All Scheduled Ancient Monuments and identified Wreck Sites present within the study area are illustrated. Those that are specifically linked to the Management Unit featured are considered in the text. Fuller archaeological details are presented in Volume 2 : Part 3.

**4.5 Coastal Defences**

The location of any existing defences are identified as a linear coastal feature.

**4.6 Flood Protection Zone**

Those areas of low lying land, which are potentially at risk from flooding, were no flood defences to be present, are illustrated. The landward boundary of this area approximates to the five metre contour. This data was generated for the 1991 Sea Defence Survey, but is today recognised as being somewhat unreliable and will in due course be replaced by the Environment Agencies ongoing Section 105 survey coastal flood area mapping.