



## **Essex and South Suffolk Shoreline Management Plan 2**

15 October 2010  
Final version 2.4

Document title	Essex and South Suffolk Shoreline Management Plan 2
Document short title	Essex and South Suffolk SMP2
Status	Final version 2.4
Date	15 October 2010
Project name	Essex and South Suffolk SMP2

## CONTENTS

	Page	
1	Introduction	15
1.1	The Shoreline Management Plan	15
1.2	Project area	22
1.3	Developing the SMP	27
1.3.1	Organisations involved	27
1.3.2	Stakeholder involvement	31
1.3.3	Overview of SMP development process	32
1.4	Principles for shoreline management of the Essex and South Suffolk coast	34
1.5	Compliance with procedures	36
1.6	Structure of the Shoreline Management Plan	37
2	Basis for developing the plan	41
2.1	Coastal Processes and Coastal Defences	41
2.1.1	Introduction	41
2.1.2	Key processes	42
2.1.3	Geology and Geomorphology	45
2.1.4	Recent geomorphological development	47
2.1.5	Contemporary processes and geomorphology	48
2.1.6	Coastal Defences	51
2.1.7	Future External Development	55
2.2	Land Use and Environment	58
2.2.1	Introduction	58
2.2.2	Management Unit A: Stour and Orwell Estuaries	58
2.2.3	Management Unit B: Hamford Water	60
2.2.4	Management Unit C: Tendring Peninsula	62
2.2.5	Management Unit D: Colne Estuary	64
2.2.6	Management Unit E: Mersea Island	65
2.2.7	Management Unit F: Blackwater Estuary	66
2.2.8	Management Unit G: Dengie Peninsula	67
2.2.9	Management Unit H: Crouch and Roach Estuaries	68
2.2.10	Management Unit I: Foulness, Potton and Rushley Islands	69
2.2.11	Management Unit J: Southend-on-Sea	69
2.3	Role of Shoreline Management	70
2.3.1	Introduction	70
2.3.2	Background developments	71
2.3.3	With Present Management	72
2.3.4	No Active Intervention	73
2.3.5	Summary	73
2.4	Sustainable Shoreline Management: Finding the Right Balance	74
2.4.1	The 'big decisions' for the Essex and South Suffolk SMP	74

2.4.2	Moving forward to solutions	76
3	General description of the plan	78
3.1	Overview of the plan	78
3.2	Implications of the plan	81
3.3	Economic viability	89
4	Policy statements	92
4.1	Introduction	92
4.2	Management Unit A – Stour and Orwell Estuaries	96
4.3	Management Unit B – Hamford Water	117
4.4	Management Unit C – Tendring Peninsula	132
4.5	Management Unit D – Colne Estuary	146
4.6	Management Unit E – Mersea Island	162
4.7	Management Unit F – Blackwater Estuary	176
4.8	Management Unit G – Dengie Peninsula	194
4.9	Management Unit H – Crouch and Roach Estuaries	207
4.10	Management Unit I – Foulness, Potton and Rushley Islands	227
4.11	Management Unit J – PDZ J – Southend on Sea	241
	Summary of the Plan: Recommendations and Justification	241
5	Action Plan	253

### **List of appendices (provided as separate documents)**

Appendix A	SMP development
Appendix B	Stakeholder involvement
Appendix C	Baseline processes
Appendix D	Thematic review
Appendix E	Policy development and appraisal
Appendix F	Shoreline interactions and responses
Appendix G	Policy appraisal
Appendix H	Economics
Appendix I	Metadatabase and bibliographic database
Appendix J	Sustainability appraisal signposting
Appendix K	Water Framework Directive compliance assessment
Appendix L	Strategic Environmental Assessment
Appendix M	Appropriate Assessment

### **List of Tables**

Table 1-1:	Essex and South Suffolk SMP principles and criteria	34
Table 2-1	Saltmarsh erosion rates based on monitoring (from Essex CHaMPS, 2003)	50
Table 2-2	Historic flood events	54
Table 2-3	Defra (2006) sea level rise guidance	57

Table 3-1 Agricultural land affected by potential realignment throughout the SMP epochs	85
Table 4-1 Key to appraisal tables	95

## List of Figures

Figure 1-1 Management units of Essex and South Suffolk SMP	16
Figure 1-2 Role of SMPs within the wider planning framework	19
Figure 1-3 Felixstowe Port - northern boundary	22
Figure 1-4 Two Tree Island – southern boundary	23
Figure 1-5: Essex and South Suffolk SMP2 area	25
Figure 1-6: Essex and South Suffolk SMP2 tidal boundaries	26
Figure 1-8 Structure of the SMP	38
Figure 2-1 Coastal defences along the Tendring peninsula	42
Figure 2-2 Old Hall Marsh, Blackwater estuary	44
Figure 2-3 London Clay formations, the Naze	46
Figure 2-4 Saltmarsh and mudflat formations, Blackwater estuary	48
Figure 2-5 Intertidal habitats in Wallasea, Crouch and Roach estuaries	51
Figure 2-6 Flood defence and coast protection in the Essex and South Suffolk SMP area	53
Figure 2-7 Recorded Sea Level Rise (Proudman Oceanographic Laboratory)	56
Figure 2-8 Stour and Orwell estuary mouth – view from the Naze	59
Figure 2-9 Hamford Water	61
Figure 2-10 Holland-on-Sea towards Clacton Pier	63
Figure 2-11 Mersea Island (courtesy of ECC)	66
Figure 2-12 Maldon, inner Blackwater estuary (courtesy of ECC)	66
Figure 2-13 Southend Seafront Pier	70
Figure 3-1 Area of agricultural land affected by potential managed realignments	84
Figure 4-1 Management Unit A, Present Day	109
Figure 4-2 Management Unit A, epoch 1	111
Figure 4-3 Management Unit A, epoch 2	113
Figure 4-4 Management Unit A, epoch 3	115
Figure 4-5 Management Unit B, , Present Day	124
Figure 4-6 Management Unit B, epoch 1	126
Figure 4-7 Management Unit B, epoch 2	128
Figure 4-8 Management Unit B, epoch 3	130
Figure 4-9 Management Unit C, Present Day	138
Figure 4-10 Management Unit C, epoch 1	140
Figure 4-11 Management Unit C, epoch 2	142
Figure 4-12 Management Unit C, epoch 3	144
Figure 4-13 Management Unit D, Present Day	154
Figure 4-14 Management Unit D, epoch 1	156
Figure 4-15 Management Unit D, epoch 2	158
Figure 4-16 Management Unit D, epoch 3	160
Figure 4-17 Management Unit E, Present Day	168
Figure 4-18 Management Unit E, epoch 1	170

Figure 4-19 Management Unit E, epoch 2	172
Figure 4-20 Management Unit E, epoch 3	174
Figure 4-21 Management Unit F, Present Day	186
Figure 4-22 Management Unit F, epoch 1	188
Figure 4-23 Management Unit F, epoch 2	190
Figure 4-24 Management Unit F, epoch 3	192
Figure 4-25 Management Unit G, Present Day	199
Figure 4-26 Management Unit G, epoch 1	201
Figure 4-27 Management Unit G, epoch 2	203
Figure 4-28 Management Unit G, epoch 3	205
Figure 4-29 Management Unit H, Present Day	219
Figure 4-30 Management Unit H, epoch 1	221
Figure 4-31 Management Unit H, epoch 2	223
Figure 4-32 Management Unit H, epoch 3	225
Figure 4-33 Management Unit I, Present Day	233
Figure 4-34 Management Unit I, epoch 1	235
Figure 4-35 Management Unit I, epoch 2	237
Figure 4-36 Management Unit I, epoch 3	239
Figure 4-37 Management Unit J, Present Day	246
Figure 4-38 Management Unit J, epoch 1	247
Figure 4-39 Management Unit J, epoch 2	249
Figure 4-40 Management Unit J, epoch 3	251

## **PUBLIC CONSULTATION**

The Essex and South Suffolk SMP went out for public consultation from 15<sup>th</sup> March to 28<sup>th</sup> June. We produced three summary documents covering the Stour, Orwell and Tendring frontage, the Colne Blackwater and Mersea Island frontage and the last one covering the Dengie, Roach, Crouch and Southend frontage so that everyone with an interest in the plan could easily see which policies we are proposing for each part of the coast. The summary documents contained a CD with the full draft SMP and all appendices, for those who would like to see the information we have used to select the draft policies.

The documents were available for viewing at some of the District/Borough Council Offices and a number of libraries within the plan area.

All the comments received can be found in the consultation register in Appendix B in Annex Ba.

### **Overview of SMP development process**

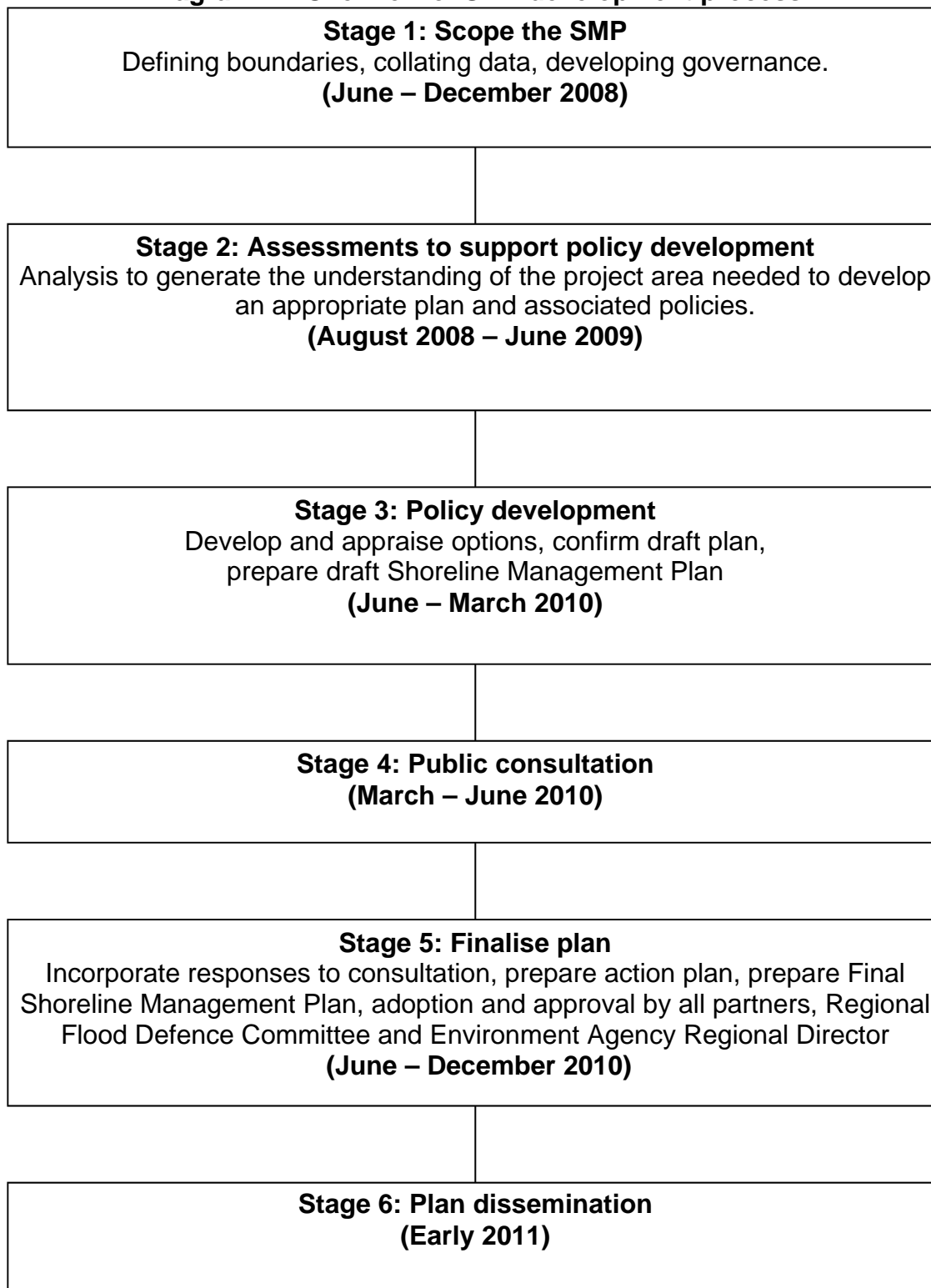
The development of SMPs follows the principles and processes set out in the Shoreline Management Plan guidance issued by Defra in March 2006. The Defra SMP guidance identifies six stages in which the SMP is drafted (Stages 1 to 3), consulted upon (Stage 4) and finalised (Stages 5 and 6). Diagram A illustrates this process with the timelines for the Essex and South Suffolk SMP.

### **Structure of the Shoreline Management Plan Document**

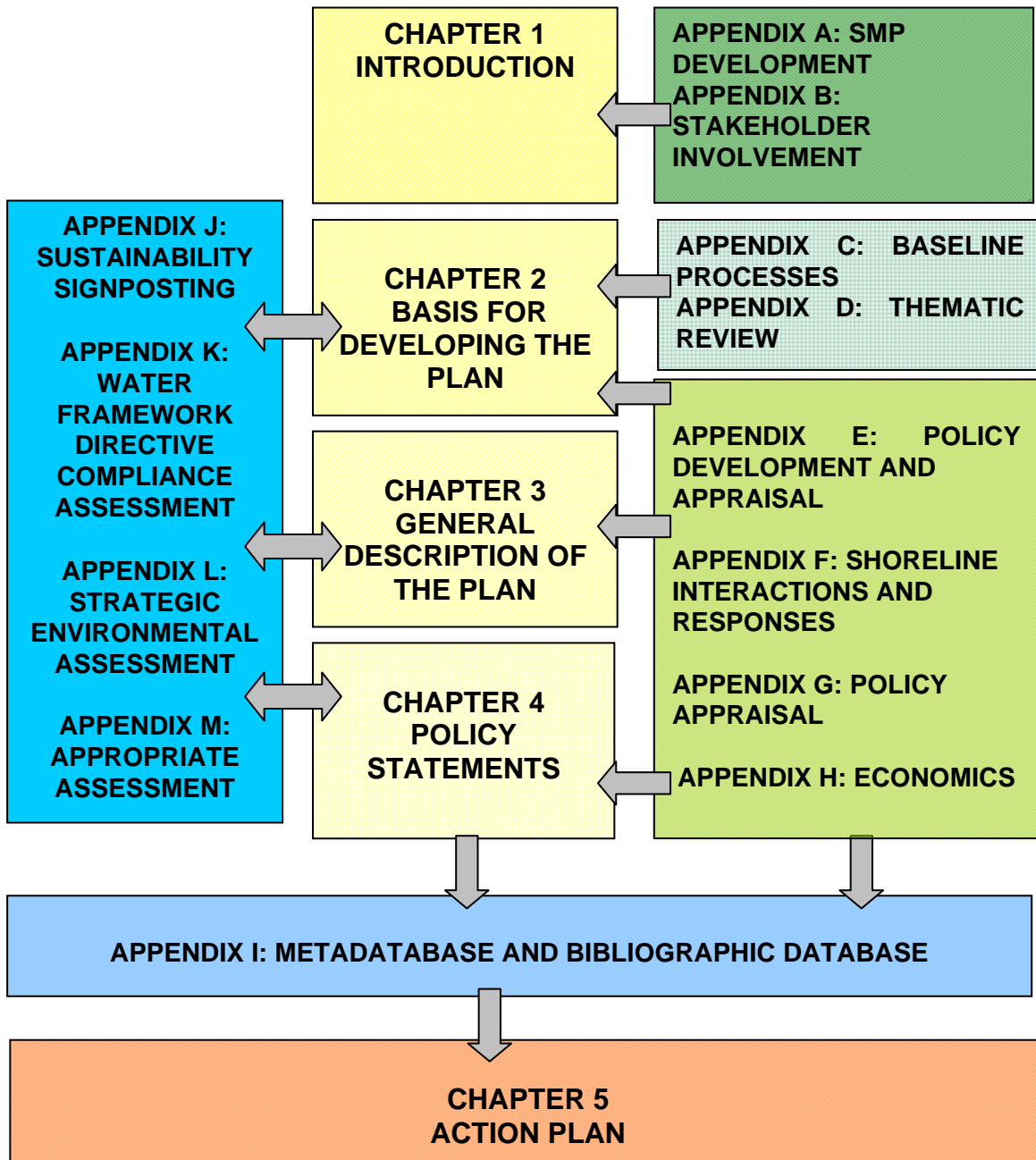
The Shoreline Management Plan consists of a plan document and a set of accompanying Appendices. The plan document is aimed at a wide audience, such as an elected member of a relevant authority or interested member of the general public. The plan document is intended to be as concise as possible, without missing out important details. The aim of the plan document is to justify the policies and to identify their implications. Information about alternative policies that were considered is included in the appendices.

The structure of the plan document including the Appendices is illustrated in Diagram B. More detail regarding the information held in each appendix can be found in section 1.6.

## Diagram A - Overview of SMP development process



**Diagram B - Structure of the Shoreline Management Plan Document**



## Glossary of terms

Term	Definition
Adaptation	A change in the way that a feature, such as a community or a habitat, functions to fit a changed environment.
Advance the line (AtL)	Building new defences seaward of the existing defence line. This policy should be limited to those stretches of coastline where significant land reclamation is considered.
Agricultural land classification	GIS dataset that provides an assessment of the quality of agricultural land as a Grade from 1 (best quality) to 5 (poorest quality). The dataset used in this Shoreline Management Plan has been produced by the Ministry of Agriculture, Fisheries and Food in 1988.
Appropriate Assessment (or Habitats Regulations Assessment) (AA)	Appropriate Assessment is the process to support a decision by the 'Competent Authority' as to whether the proposed plan or project would have an adverse effect on the integrity of any European site (designated under the EU Habitats or Birds Directives. Appropriate Assessment is required for a plan or project, which either alone or in combination with other plans or projects, is likely to have a significant effect on a European site and is not directly connected with or necessary for the management of the site.
Area of Outstanding Natural Beauty (AONB)	A precious landscape whose distinctive character and natural beauty are so outstanding that it is in the nation's interest to safeguard them. AONBs were created by the legislation of the National Parks and Access to the Countryside Act of 1949.
Baseline scenarios	Concept used in developing a SMP to illustrate the role of shoreline management by assessing the effect of two extreme management approaches: no active intervention and with present management, for all frontages and all epochs.
Bathymetry	Bed level topography of a water body
Beach nourishment	Artificial process of replenishing a beach with material from another source.
Benefit cost ratio	The ratio between the value of the benefits that a section of defence protects and the cost of maintaining that defence over the period of the SMP. This is used to assess the economic viability of a proposed policy.
UK Biodiversity Action Plan (BAP)	This sets out a programme for conserving the UK's biodiversity through targets for a range of specific habitats with the aim of reducing loss of biodiversity.
Brackish water	Freshwater mixed with seawater.

Term	Definition
Breaker zone	Area in the sea where the waves break.
Chart Datum (CD)	Reference water level for navigation, generally a low tidal level.
Climate change	Long-term change in the patterns of average weather. Its relevance to shoreline management concerns its effect on sea levels, current patterns and storminess.
Coastal squeeze	The reduction in habitat area that can arise if the natural landward migration of a habitat due to sea level rise is prevented by the fixing of the high water mark, for example a sea wall.
Competent Authority	For the purposes of the Habitat Regulations the expression "competent authority" includes any Ministry, government department, public or statutory undertaker, public body of any description or person holding a public office. The expression also includes any person exercising any function of a competent authority in the United Kingdom.
Condition grade (CG)	Indicator based on visual inspection of flood defence condition, ranging from condition grade 1 (very good) to 5 (very poor).
Department for Food, Environment and Rural Affairs (Defra)	Government department responsible for flood management policy in England and Wales. Incorporates the former Ministry of Agriculture, Fisheries and Food.
Defra procedural guidance	Guidance produced by Defra to provide a nationally consistent structure for producing future generation Shoreline Management Plans.
Downdrift	In the direction of longshore movement of beach materials.
Dwellings	A house, flat or other place of residence. In the terminology of the SMP and its economic viability calculations, this excludes temporary accommodation such as caravan parks.
Ebb dominance	Estuaries or channel reaches that display an ebbing tide (seaward movement of water) that is faster in velocity and short in duration than the flooding tide. Ebb dominant estuaries tend to flush sediment seawards from their entrance channels.
Ecosystem	Organisation of the biological community and the physical environment in a specific geographical area.
Environmental impact assessment (EIA)	Detailed studies that predict the effects of a development project on the environment. They also provide plans for mitigating any significant adverse effects.

Term	Definition
EU Bathing Water directive	The aim of this directive is to protect public health and the environment from fecal pollution at bathing waters. It sets a number of microbiological and physio-chemical standards that bathing waters must either comply with ('mandatory' standards) or endeavour to meet ('guideline' standards).
EU Habitats directive	European legislation on the conservation of habitats.
Facies	Specific characteristics of a body of rock.
Feature	Something tangible that provides a service to society in one form or another or, more simply, benefits certain aspects of society by its very existence and is usually found in a specific place.
Fetch	Area of water over which waves are generated by the wind.
Flood dominance	Estuaries or channel reaches that display a flooding tide (landwards movement of water from the sea) that is faster in velocity and shorter in duration than the ebbing tide. Flood dominant estuaries tend to infill their entrance channels by continually pushing coastal sediment landward.
Foreshore	Zone between the high water and low water marks.
Gabion	A cage filled with rock used to stabilise the shoreline against erosion.
Geomorphology/ Morphology	The branch of physical geography/geology that deals with the form of the Earth, the general configuration of its surface, the distribution of the land, water, etc.
Groyne	Shore protection structure built perpendicular to the shore and designed to trap sediment.
Habitats Regulations Assessment (HRA)	Habitat Regulations Assessment is the process to support a decision by the 'Competent Authority' as to whether the proposed plan or project would have an adverse effect on the integrity of any International site. Habitats Regulations Assessment is required for a plan or project, which either alone or in combination with other plans or projects, is likely to have a significant effect on a European site and is not directly connected with or necessary for the management of the site.
Heritage asset	A building, monument, site or landscape of historic, archaeological, architectural or artistic interest whether designated or not. Designated assets may be World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks or Gardens, Registered Battlefields and Conservation Areas.
Hinterland	Area landward of the shoreline.

Term	Definition
Historic Environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and deliberately planted or managed flora.
Hold the Line (HtL)	Hold the existing defence line by maintaining or changing the standard of protection.
Hydrodynamic	The study of liquids in motion. In the context of the SMP: caused by water in motion.
Indicators	Used to support the appraisal of policies against criteria.
Infrastructure	The basic physical and organisational structures and facilities (e.g. buildings, roads, power stations) needed for the operation of a society
Integrated	An approach that tries to takes all issues and interests into account.
Geographical Information System (GIS)	A database of information which is geographical orientated, usually associate with an associated visual system. A system that integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.
Listed Building	A building or other structure officially designated as being of special architectural, historical or cultural significance.
Local Development Framework (LDF)	A collection of local development documents that outlines how a local authority will manage planning in their area.
Local Nature Reserves	A statutory designation for sites established by local authorities in consultation with Natural England (formerly English Nature). These sites are generally of local significance and also provide important opportunities for public enjoyment, recreation and interpretation.
Longshore	Current moving parallel and close to the coastline
Managed Realignment (MR)	Allowing or enabling the shoreline to move, with associated management to control or limit the effect on land use and environment. This can take various forms, depending on the nature of the shoreline and the intent of management to be achieved.
Mean sea level	Average height of the sea surface over a 19-year period.
Mean high water	The average of all high waters observed over a sufficiently long period (approximately 19 years).
Mean low water	The average of all low waters observed over a sufficiently long period (approximately 19 years).

Term	Definition
Mitigation	<p>Practical measures taken to offset the impact of a policy on physical assets. The term mitigation has a specific meaning for particular types of physical asset:</p> <ul style="list-style-type: none"> <li>• For wildlife, mitigation may be any process or activity designed to avoid, reduce or remedy adverse environmental impacts of the plan.</li> <li>• For the historic environment, mitigation may be 'preservation by investigation' for archaeological features, or 'preservation by recording' followed by stage abandonment, demolition or re-location for Listed Buildings. There is no effective mitigation for the loss of historic landscapes.</li> </ul>
Mudflat	Low-lying muddy land that is covered at high tide and exposed at low tide
Natura 2000	An ecological network of protected areas in the EU (SPAs under the Birds directive and SACs under the Habitats directive).
Natural Processes	Those processes over which people have no significant control (such as wind and waves).
National Flood and Coastal Defence Database (NFCDD)	National database for managing flood risk management asset data. This database has been provided by the Environment Agency.
National property dataset	GIS dataset that provides information on the location and type of properties in England and Wales. This includes the value of properties based on 2005 values.
National Nature Reserves (NNR)	A statutory designation by Natural England (formerly English Nature). These represent some of the most important natural and semi-natural ecosystems in Great Britain and are managed to protect the conservation value of the habitats that occur on these sites.
No Active Intervention (NAI)	No investment in coastal defences or operations. It can apply to unprotected cliff frontages and to areas where investment cannot be justified, potentially resulting in natural or unmanaged realignment of the shoreline.
No-regret policies	Policies that don't have irreversible negative implications.
Objective	A desired state to be achieved in the future. An objective is set, through consultation with key parties, to encourage the resolution of an issue or range of issues.

Term	Definition
Offshore zone	Extends from the low water mark to a water depth of about 15 metres (49 feet) and is permanently covered with water.
Ordnance Datum (OD)	Elevation used on ordnance survey maps for deriving height. In the UK this is mean sea level in Newlyn, Cornwall measured between 1915 and 1921.
Outfall Structure	Man-made object designed to control the outlet of a river, drain or sewer where it discharges into a body of water.
Policy	In this context, “policy” refers to the generic shoreline management options (no active intervention, hold the line, managed realignment and advance the existing line of defence).
Policy development zone (PDZ)	A length of coastline defined to assess all issues and interactions to examine and develop management scenarios. These zones are only used to develop policy.
Policy scenario	A combination of policies selected against the various feature/benefit objectives for the whole SMP frontage.
Present value (PV)	The value of a stream of benefits or costs when discounted back to the present day. For this SMP the discount factors used are the latest provided by Defra for assessing schemes, that is 3.5 per cent for years 0-30, 3.0 per cent for years 31-75 and 2.5 per cent thereafter.
Principle	High level statement agreed by partner authorities and used to develop the SMP.
Prograding	When the shoreline is developing and building seaward by accumulation or deposition.
Ramsar site	Designated under the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971. The objective of this designation is to prevent the progressive encroachment into, and the loss of, wetlands.
Registered parks and gardens	Parks and gardens registered for their historic value so they are considered in the planning process. Local planning authorities must consult English Heritage where planning applications may affect these sites.
Rapid Coastal Zone Assessment Survey (RCZAS)	Surveys of the heritage assets on England’s coast that were initiated by English Heritage to improve knowledge and understanding.
Regulated Tidal Exchange	A form of saltmarsh creation that allows the controlled inundation of previously defended land with saline water, using a combination of pipes and sluices.
Residual life	Period of time until a defence has deteriorated to a state in which it no longer performs its function.

Term	Definition
Special Area of Conservation (SAC)	This designation aims to protect habitats or species of European importance and can include Marine Areas. SACs are designated under the EU Habitats directive (92/43/EEC) and will form part of the Natura 2000 site network. All SACs are also protected as SSSIs, except those in the marine environment below mean low water (MLW).
Scheduled Ancient monument	A statutory designation under the Ancient Monuments and Archaeological Areas Act 1979. This act, building on legislation dating back to 1882, provides for nationally important archaeological sites to be statutorily protected as scheduled monuments.
Setback	Prescribed distance landward of a coastal feature (for example the line of existing defences).
Shellfish Waters directive	Aims to protect or improve shellfish waters in order to support shellfish life and growth. It sets physical, chemical and microbiological water quality requirements that designated shellfish waters must either comply with ('mandatory' standards) or endeavour to meet ('guideline' standards).
Shoreline Management Plan	A non-statutory plan that provides a large-scale assessment of the risks associated with coastal processes and presents a policy framework to reduce these risks to people and the developed, historic and natural environment in a sustainable manner over a 100 year time period.
Special Protection Area (SPA)	A statutory designation for internationally important sites, set up to establish a network of protected areas of birds. SPAs are designated under the EU Birds directive (79/409/EEC)
Special Site of Scientific Interest (SSSI)	A statutory designation under the Wildlife and Countryside Act 1981. Notified by Natural England (formerly English Nature), representing some of the best examples of Britain's natural features including flora, fauna, and geology.
Standard of Protection (SoP)	The level of protection that a flood or erosion defence provides. This is typically expressed as the frequency of the storm that the defence is expected to withstand. For example, a defence can have a standard of protection of 1 per cent per year.
Storm surge	A rise in the sea surface on an open coast resulting from meteorological forcing (wind, high or low barometric pressure) during a storm.

Term	Definition
Strategic Environmental Assessment (SEA)	SEA provides a systematic appraisal of the potential environmental consequences of high-level decision-making (i.e. plans, policies and programmes). By addressing strategic level issues, SEA aids the selection of the draft options, directs individual schemes towards the most appropriate solutions and locations and helps to ensure that resulting schemes comply with legislation and other environmental requirements.
Sustainability Appraisal (SA)	A Sustainability Appraisal is as a systematic and iterative appraisal process, incorporating the requirements of the Strategic Environmental Assessment. The purpose of the Sustainability Appraisal is to appraise the social, environmental and economic effects of the strategies and policies in a Local Development Document from the outset of the preparation process.
Swell	Waves that have travelled out of the area in which they were generated.
Tidal prism (or tidal diamond)	The volume of water within an estuary between the level of high and low tide, typically taken for mean spring tides.
Tide	Periodic rising and falling of large bodies of water resulting from the gravitational attraction of the moon and sun acting on the rotating earth.
Topography	Configuration of a surface including its relief and the position of its natural and man-made features.
Transgression	The landward movement of the shoreline in response to a rise in relative sea level.
Water table	The upper surface of groundwater. Below this level, the soil is saturated with water.
Wave direction	Direction from which a wave approaches.
Water Framework Directive (WFD)	A European Directive that aims to establish a framework for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater.
Wave refraction	Process by which the direction of approach of a wave changes as it moves into shallow water.
With Present Management (WPM)	Policy scenario in which the present management of the whole shoreline is continued for the coming 100 years. Used in early stages of SMP development alongside a No Active Intervention scenario to analyse the role of shoreline management.

## List of abbreviations and acronyms

### Organisations directly involved in SMP

BDC	Babergh District Council
CBC	Chelmsford Borough Council
CBC	Colchester Borough Council
EA	Environment Agency
ECC	Essex County Council
EH	English Heritage
IBC	Ipswich Borough Council
MDC	Maldon District Council
NE	Natural England
RDC	Rochford District Council
RFDC	Regional Flood Defence Committee
SBC	Southend-on-Sea Borough Council
SCC	Suffolk County Council
SCDC	Suffolk Coastal District Council
TDC	Tendring District Council

### External/Other organisations

AW	Anglian Water
BASC	British Association for Shooting and Conservation
BE	British Energy
ASM	Asset Systems Management (EA)
CAF	Corporate Affairs (EA)
CLA	Country Landowners and Business Association
CLG	Department for Communities and Local Government
CSO	Catchment Sensitive Officers (EA)
S&DP	Strategic & Development Planning (EA)
Defra	Department for Environment, Food and Rural Affairs
EDF	EDF Energy
EERA	East of England Regional Assembly
EU	European Union
EWT	Essex Wildlife Trust
FRB	Fisheries, Recreation and Biodiversity (EA)
FCRM	Flood and Coastal Risk Management (EA)
Ops Del.	Operations Delivery (EA)
FWAG	Farming and Wildlife Advisory Group
HHA	Harwich Haven Authority
IDB	Internal Drainage Board
LSP	Local Strategic Partnership
MCC	Managing Coastal Change
NEAS	National Environmental Assessment Service
NFU	National Farmers' Union

NT	National Trust
OS	Ordnance Survey
QRG	Quality Review Group
RHCP	Regional Habitat Creation Programme (EA)
RSPB	Royal Society for the Protection of Birds
RYA	Royal Yacht Association
SWT	Suffolk Wildlife Trust
WT	Wildlife Trust

---

### **SMP Groups (Consultation)**

CSG	Client Steering Group
EMF	Elected Members Forum
KSG	Key Stakeholder Group

---

### **Plans/Strategies/Studies & Assessments**

AA	Appropriate Assessment
CFMP	Catchment Flood Management Plan
CHaMP	Coastal Habitat Management Plan
ICZM	Integrated Coastal Zone Management
LDF	Local Development Framework
MSfW	Making Space for Water
NI 188	National Indicator 188 (Climate change)
NI 189	National Indicator 189 (Flood Risk)
PPG	Planning Policy Guidance
PPS25	Planning Policy Statement 25
RBMP	River Basin Management Plan
RCZAS	Rapid Coastal Zone Assessment Survey
RFRA	Regional Flood Risk Appraisal
RSS	Regional Spatial Strategy
SA	Sustainability Appraisal
SAMP	System Asset Management Plans
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SMP	Shoreline Management Plan
SNS2	Southern North Sea Sediment Transport Study
TE2100	Thames Estuary 2100
UKCP	United Kingdom Climate Programme (formally UKCIP, United Kingdom Climate Impact Programme)
WFD	Water Framework Directive
WLMP	Water Level Management Plan

---

### **Special interest sites**

AONB	Area of Outstanding Natural Beauty
LNR	Local Nature Reserve

NNR	National Nature Reserve
SAC	Special Areas of Conservation
SM	Scheduled monument
SPA	Special Protection Area
SSSI	Site of Special Scientific interest

---

### Technical terms

AOD	Above Ordnance Datum
AtL	Advance the line
BAP	Biodiversity Action Plan
BCR / B - C Ratio	Benefit cost ratio
FWD	Flood Warnings Direct
GIS	Geographical Information System
HtL	Hold the Line
HWM	High water mark
IROPI	Imperative reasons of overriding public interest
LiDAR	Light detection and ranging
MR	Managed realignment
NAI	No active intervention
NFCDD	National flood and coastal defence database
NPD	National property dataset
OA	Operating authority
ODN	Ordnance Datum Newlyn
OWF	Offshore wind farms
PDZ	Policy Development Zone
PV	Present value
SAR	Synthetic aperture radar
SOP	Standard of protection
WPM	With present management