

Medway Estuary and Swale Shoreline Management Plan SMP

Appendix F – Initial Policy Appraisal & Scenario Development

Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Approved by
1	0	Consultation Draft	01/05/07	N Pontee
	1	Amendments following public consultation and QRG review	31/10/08	N Pontee
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Halcrow Group Limited

Burderop Park, Swindon, Wiltshire SN4 0QD

Tel +44 (0)1793 812479 Fax +44 (0)1793 812089

www.halcrow.com

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Appendix F: Initial Policy Appraisal and Scenario Development

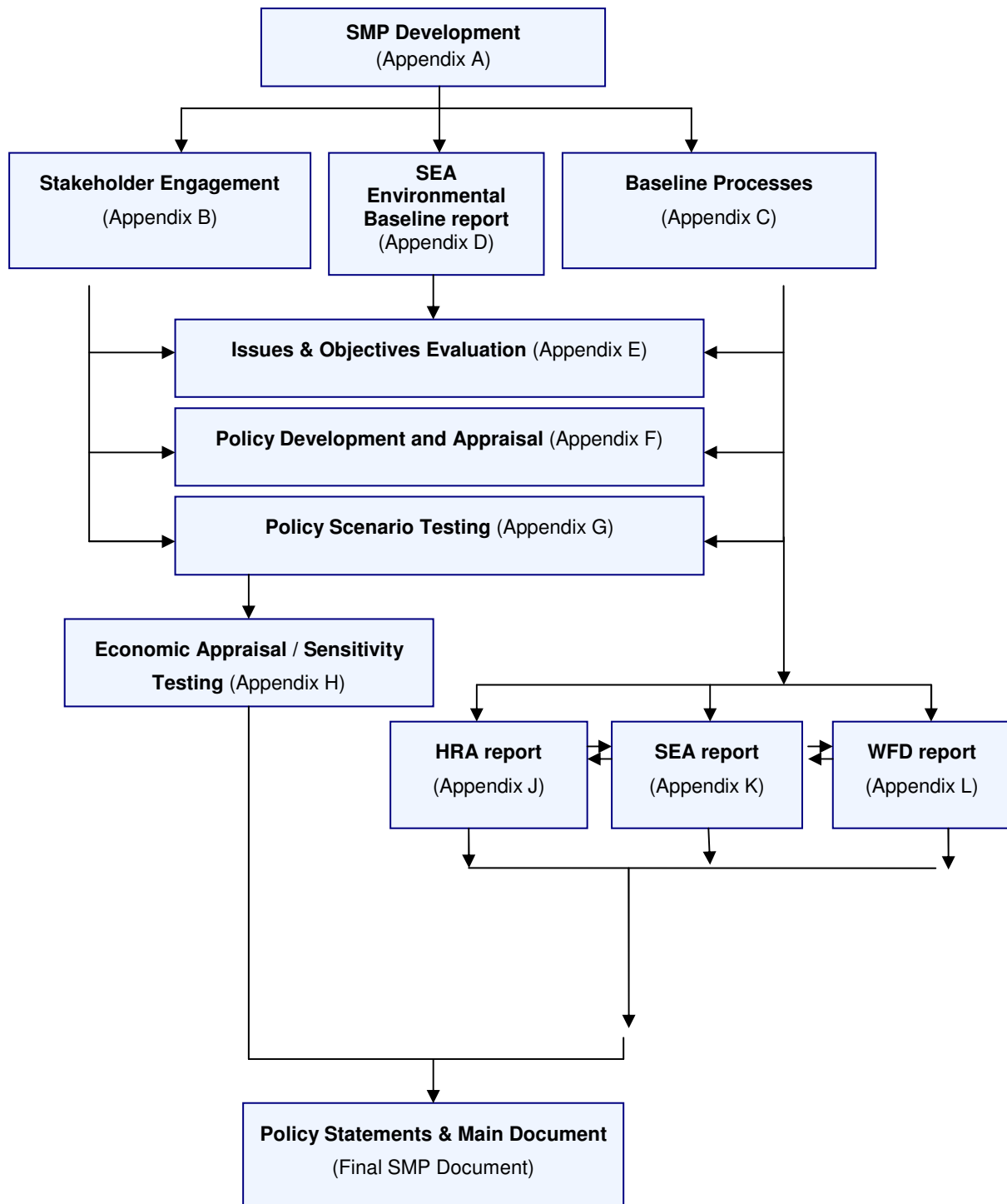
- F1 INTRODUCTION..... 1**
- F2 IDENTIFICATION OF ‘KEY POLICY DRIVERS’ 2**
- F3 IDENTIFICATION OF POTENTIAL POLICY OPTIONS 4**
- F4 POLICY APPRAISAL TABLES..... 5**
- F5 POLICY SCENARIOS FOR ASSESSMENT: METHODOLOGY..... 16**

The Supporting Appendices

This appendix and the accompanying documents provide all of the information required to support the Shoreline Management Plan. They ensure that there is clarity in the decision-making process and that the rationale behind the policies being promoted is both transparent and auditable. The appendices are:

A: SMP Development	This reports the history of development of the SMP, describing more fully the plan and policy decision-making process.
B: Stakeholder Engagement	All communications from the stakeholder process are provided here, together with information arising from the consultation process.
C: Baseline Process Understanding	Includes baseline process report, defence assessment, NAI and WPM assessments and summarises data used in assessments.
D: SEA Environmental Baseline Report (Theme Review)	This report identifies and evaluates the environmental features (natural environment, landscape character, historic environment, land use, infrastructure and material assets, and population and human health).
E: Issues & Objective Evaluation	Provides information on the issues and objectives identified as part of the Plan development, including appraisal of their importance.
F: Initial Policy Appraisal & Scenario Development	Presents the consideration of generic policy options for each frontage, identifying possible acceptable policies, and their combination into 'scenarios' for testing.
G: Scenario Testing	Presents the policy assessment and appraisal of objective achievement towards definition of the Preferred Plan (as presented in the Shoreline Management Plan document).
H: Economic Appraisal and Sensitivity Testing	Presents the economic analysis undertaken in support of the Preferred Plan.
I: Metadatabase and Bibliographic database	All supporting information used to develop the SMP is referenced for future examination and retrieval.
J: Habitat Regulations Assessment	Presents an assessment of the effect the plan will have on European sites.
K: Strategic Environmental Assessment	Presents the Strategic Environmental Assessment of the Plan.
L: Water Framework Compliance	Presents a retrospective Water Framework Directive Assessment.

Within each appendix cross-referencing highlights the documents where related appraisals are presented. The broad relationships between the appendices are as below:



F1 Introduction

This Appendix outlines the key steps undertaken in the development and definition of policies. Policy scenarios have then been taken forward and appraised and the results of this appraisal are presented in **Appendix G**.

The recommended approach (Defra Guidance) for development of a sustainable final plan is through the assessment of policy scenarios, rather than considering locations in isolation. The aim of this stage has therefore been to identify the appropriate combinations of policies to be appraised for the whole SMP frontage. This has involved the following activities:

- Identification of 'key policy drivers' (**Section F2**);
- Identification of potential policy options through the broad-level appraisal of the four generic Defra policy descriptors (**Section F3**); and,
- Development of policy scenarios for assessment (**Section F4 / F5**).

It should be noted that the first two tasks have looked at individual locations in relative isolation, but wider-scale impacts of policies have been assessed during the policy scenario appraisal stage which has looked at the likely shoreline response and evolution both locally and along the SMP coast as a whole (**Appendix G**).

F2 Identification of 'key policy drivers'

F2.1 DEFINITION

A 'key policy driver' can be defined as a feature that has sufficient importance in terms of the benefits it provides that it potentially has an overriding influence upon policy selection at the wider SMP scale. This may be through either promoting a policy, or discarding a policy, for a particular location or locations.

There are no specific criteria which define a key policy driver, rather it is dependant upon the specific nature of coastline and associated objectives and is slightly intuitive.

Examples of a key driver may include:

- A power station which must be maintained, due to its national significance (possibly only for a certain period of time if the facility is to be closed/decommissioned); or,
- An internationally important habitat which relies on constant sediment feed, driving policy for the up-drift shoreline.

F2.2 METHODOLOGY

The Issues and Objectives Table (**Appendix E**) was used to initially identify key policy drivers for the coast (Filter 1). Proposed key policy drivers were presented to the Client Steering Group (CSG) at a workshop in August 2006. The key policy drivers proposed, by the consultant, were:

- Grain Power Station (identified as a nationally important commercial asset);
- Former oil Refinery Site at Grain (identified as a nationally important commercial and regeneration area);
- Thames Port (identified as an internationally important commercial asset);
- Kingsnorth Power Station (identified as a nationally important commercial asset);
- Frindsbury and Strood (identified as important residential, commercial and economic assets);
- Rochester, Chatham and St Mary's Island (identified as important residential, commercial, and economic assets);
- Chatham Dock (identified as internationally important infrastructure and commercial asset);
- Chatham Historic Dockyard (recognised for its international heritage importance);
- Gillingham Waterfront (identified as an important residential and recreational asset and regeneration area);
- Queenborough and Rushenden (identified as regionally important residential, commercial and national heritage assets); and,
- Sheerness Port and Sheerness (identified as internationally important commercial assets and infrastructure and important residential and commercial assets).

F2.3 KEY POLICY DRIVERS

At the August 2006 workshop the CSG decided that there was insufficient justification to not investigate other policy options over the 100 year SMP time frame. As such no key policy drivers were agreed upon. Key policy drivers were discounted for the following reasons:

- Grain Power Station: discounted by the CSG because there may be uncertainty relating to its future in later epochs, i.e. it may be decommissioned at some point in the future;
- Former Oil Refinery Site: discounted by the CSG because there may be uncertainty relating to the importance of the site in later epochs;
- Thames Port: discounted because the CSG wanted to test advance the line;
- Kingsnorth Power Station: discounted by the CSG because there may be uncertainty relating to its future in later epochs, i.e. it may be decommissioned at some point in the future;
- Frindsbury and Strood: discounted because the CSG wanted to test advance the line;
- Rochester, Chatham and St Mary's Island: discounted because the CSG wanted to test advance the line;
- Chatham Dock: discounted by the CSG because there may be uncertainty relating to the importance of the site in later epochs;
- Chatham Historic Dockyard: discounted because the CSG wanted to test advance the line;
- Gillingham Waterfront: discounted because the CSG wanted to test advance the line;
- Queenborough and Rushenden: discounted because the CSG want a number of options to be tested; and,
- Sheerness Port and Sheerness: discounted because the CSG wanted to test advance the line.

F3 Identification of potential policy options

F3.1 METHODOLOGY

During the August 2006 workshop, having agreed there were no key policy drivers, the CSG split into two groups; the 'open coast' (Whitstable Town to South Foreland) and the 'estuaries group' (Medway and Swale estuaries and the open coast on north Grain and north Sheppey), to identify potential policy options (Filter 2's), for appraisal.

The potential policy option process is essentially a 'screening procedure' for those areas where no key policy drivers have been agreed. There are four generic Defra policy options to choose from and they are:

- **Hold the line** - maintain the existing defence line;
- **Advance the line** - build new defences seaward of the existing defence line;
- **Managed realignment** - allow the shoreline to change with management to control or limit movement; and
- **No active intervention** - a decision not to invest in providing or maintaining defences.

To assign potential policy options the shorelines were sub-divided into a number of frontages, each of which can be considered discrete from adjacent frontages. For each of these frontages the CSG discussed and agreed policy options they would like the consultant to test. The CSG were asked to:

- Provide a practical vision for the coastline over the short (0-20 years), medium (20-20 years) and long term (50-100 years);
- Consider the relative importance of their issues against those of others; and,
- Where there might be a conflict of interest, consider possible areas for compromise or acceptable change, especially where the relative importance of a particular issue might alter over time.

F4 Policy Appraisal Tables

Generic criteria were devised at the August 2006 CSG workshop to facilitate the selection of policies at specific frontages. The criteria were as follows:

- Advance the line should be tested for ports and harbours;
- Managed realignment should be considered where there is potential for retreat; and,
- Where there are settlements, options other than hold the line should be tested after Year 20.

The following tables summarise the policies selected for appraisal for each policy unit, resulting from the workshop. The justification for appraising the policies is also included in the tables.

Note:

Some changes to the unit boundaries were suggested by the CSG and the tables reflect these changes.

At some locations (e.g. Shell Ness to Kingsferry Bridge), a change in policy to managed realignment or no active intervention, in the long-term, may potentially offer technical and/or environmental benefits. However its implementation would involve the loss of important environmental or anthropogenic assets (land, properties, infrastructure etc). In these locations and under these circumstances, consideration of the long-term policy is the overall objective.

GRAIN TOWER TO COLEMOUTH CREEK			
Summary description: A number of important commercial operations (power station, container port) and major infrastructure are located on the Isle of Grain. The village of Grain is located on high land. The natural environment consists of London Clay cliffs and a shingle foreshore at Grain. Intertidal areas of are of nature conservation importance.			
Position of 'the line': Existing defences (e.g. flood embankments, concrete sea walls, revetments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic assets and infrastructure along the frontage and low lying areas.		
Advance the Line	To be appraised. Will increase protection to the Isle of Grain. Will enhance the economic assets.		
Managed Retreat	No benefits in the short term given that important economic assets and infrastructure are located on the shoreline.	To be appraised for long-term technical and environmental benefits. Change managed in a controlled manner.	
No Active Intervention	No benefits. Uncontrolled loss of important economic assets and infrastructure to flooding and erosion.		
<i>Note: To include HTL (0-20 years) followed by MR (20-100 years)</i>			

COLEMOUTH CREEK TO BEE NESS JETTY (Stoke Marshes)			
Summary description: Sparsely populated section of coastline. Major infrastructure is located along this frontage. Intertidal areas of saltmarsh, coastal grazing marsh and mudflat are of nature conservation importance.			
Position of 'the line': Existing defences (e.g. flood embankments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the infrastructure along the frontage and low lying flood risk areas.		
Advance the Line	To be appraised for technical benefits. Will increase flood protection to infrastructure.		
Managed Retreat	To be appraised for long-term technical and environmental benefits, will protect infrastructure. Change managed in a controlled manner.		
No Active Intervention	To be appraised for environmental benefits.		

BEE NESS JETTY TO HOO MARINA			
Summary description: Major economic asset is located along this frontage. Sparsely populated area of shoreline, with small pockets of recreational development. Intertidal areas of saltmarsh, coastal grazing marsh and mudflat are of nature conservation importance.			
Position of 'the line': Existing defences (e.g. flood embankments, concrete seawall, steel sheet piling, rock revetments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic assets of the frontage and backing flood risk areas.		
Advance the Line	To be appraised. Will increase flood and erosion protection. Will enhance the economic assets.		
Managed Retreat	To be appraised for long-term environmental benefits, will protect residential assets. Change managed in a controlled manner.		
No Active Intervention	No benefits. Uncontrolled loss of important economic assets and infrastructure to flooding and erosion.	To be appraised for environmental benefits.	

HOO MARINA TO LOWER UPNOR			
Summary description: Sparsely populated area of shoreline. Heritage feature is located on the shoreline (SM). Natural environment consists of low lying agricultural and marsh land. A small section of clay cliffs lies landward of a shingle beach and fronting mudflat at Cockham Wood. Intertidal areas and coastal grazing marshes are of nature conservation importance. Hoo Saltmarsh Island (with heritage feature SM) has been included within this unit. Island is undeveloped and its intertidal areas of saltmarsh and mudflat are of nature conservation interest.			
Position of 'the line': Back of beach at Cockham Wood, otherwise existing defences (earth embankments, sea walls, rock revetments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised (heritage features and Hoo Saltmarsh Island ONLY). Will protect the heritage assets of the frontage.		
Advance the Line	No benefits. Potential detrimental environmental and technical impacts.		
Managed Retreat	To be appraised for potential of saltmarsh habitat creation.		
No Active Intervention	To be appraised for long-term environmental and process benefits.		

LOWER UPNOR TO MEDWAY (M2) BRIDGE			
Summary description: Predominantly dense urban, industrial and commercial development with small pockets of recreational development and public open space. Important infrastructure along this frontage. Heritage feature forms part of the Upnor Building Conservation Area. Channel begins to narrow.			
Position of 'the line': Existing defences (sea walls, earth embankments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic assets of the frontage and backing flood and erosion risk areas.		
Advance the Line	To be appraised. Will increase flood and erosion protection to assets.		
Managed Retreat	To be appraised (Whitehall Creek ONLY) for environmental benefits. Will protect assets. Change managed in a controlled manner.		
No Active Intervention	No benefits. Uncontrolled loss of anthropogenic assets to flooding and erosion.		

MEDWAY (M2) BRIDGE TO NORTH HALLING (WEST BANK)			
Summary description: Important infrastructure close to the river channel along this frontage. Channel narrow.			
Position of 'the line': Natural channel banks and existing defences (flood embankments, concrete walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the infrastructure along the frontage and backing flood risk areas.		
Advance the Line	No benefits. Potential environmental and technical impacts would result from seaward movement of defences.		
Managed Retreat	To be appraised (where no railway ONLY) for potential long-term environmental benefits.	To be appraised for potential long-term environmental benefits, will protect assets. Change managed in a controlled manner.	
No Active Intervention	To be appraised (where no railway ONLY) for potential long-term environmental benefits.	To be appraised for potential long-term environmental benefits.	
<i>Note: To include HTL (0-20 years) followed by MR (20-100 years) and HTL (0-20 years) followed by NAI (20-100 years)</i>			

NORTH HALLING TO SNODLAND (WEST BANK)			
Summary description: Grazing marsh and meadow interspersed with villages. Channel narrow.			
Position of 'the line': Natural channel banks and existing defences (flood embankments, concrete walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic and residential assets of the frontage and backing flood risk areas. Will protect freshwater habitats.		
Advance the Line	No benefits. Potential environmental and technical impacts would result from seaward movement of defences.		
Managed Retreat	To be appraised for potential long-term environmental benefits and protection of residential assets. Change managed in a controlled manner.		
No Active Intervention	To be appraised for potential long-term environmental benefits. Secondary defences exist at Halling Marshes therefore flooding will be confined, elsewhere potential for uncontrolled flooding of residential assets.		

LEYBOURNE LAKES (WEST BANK)			
Summary description: An area of freshwater lakes. Channel narrow.			
Position of 'the line': Existing defences (earth and natural embankments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the freshwater habitats assets and backing flood risk areas.		
Advance the Line	No benefits. Potential environmental and technical impacts would result from seaward movement of defences.		
Managed Retreat	To be appraised for potential long-term environmental benefits and protection of residential assets. Change managed in a controlled manner.		
No Active Intervention	To be appraised for potential long-term environmental benefits.		

NEW HYTHE TO ALLINGTON LOCK (WEST BANK)			
Summary description: The frontage is increasingly urban / industrial towards Allington Lock. Frontage forms part of the Aylesford Conservation Area. Channel narrow.			
Position of 'the line': Existing defences (earth and natural embankments, concrete / timber / sheet piling walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic and residential assets of the frontage and backing flood risk areas.		
Advance the Line	No benefits. Potential environmental and technical impacts would result from seaward movement of defences.		
Managed Retreat	No benefits in the short term, given that important economic and residential assets and infrastructure are located on the shoreline.	To be appraised for environmental benefits and protection of assets. Change managed in a controlled manner.	
No Active Intervention	No benefits. Uncontrolled loss of anthropogenic assets to flooding and erosion.		
<i>Note: To include HTL (0-20 years) followed by MR (20-100 years)</i>			

ALLINGTON LOCK TO MILLHALL (EAST BANK)			
Summary description: Urban and commercial areas towards Allington. Frontage forms part of the Aylesford Conservation Area. Channel narrow.			
Position of 'the line': Natural channel banks and existing defences (flood embankments, concrete walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic and residential assets along the frontage and backing flood risk areas.		
Advance the Line	No benefits. Potential environmental and technical impacts would result from seaward movement of defences		
Managed Retreat	To be appraised (for discrete areas upstream ONLY) for environmental benefits.	To be appraised for environmental benefits and protection of assets. Change managed in a controlled manner.	
No Active Intervention	No benefits. Uncontrolled loss of anthropogenic assets to flooding and erosion.		
<i>Note: To include HTL (0-20 years) followed by MR (20-100 years)</i>			

MILLHALL TO MEDWAY BRIDGE (EAST BANK)			
Summary description: The frontage predominantly comprises freshwater grazing marsh, grazing and agricultural land interspersed with villages. A section of this frontage forms part of the Kent Downs AONB. Channel narrow.			
Position of 'the line': Natural channel banks and existing defences (flood embankments, concrete walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic and residential assets of the frontage and backing flood risk areas. Will protect freshwater habitats.		
Advance the Line	No benefits. Potential environmental and technical impacts would result from seaward movement of defences.		
Managed Retreat	To be appraised for potential long-term environmental benefits and protection of residential assets. Change managed in a controlled manner.		
No Active Intervention	To be appraised for potential long-term environmental benefits.		

MEDWAY (M2) BRIDGE TO WEST OF ST MARY'S ISLAND			
Summary description: Dense urban development, small pockets of recreational and commercial development along this frontage. Important area for heritage features, forms part of the Star Hill to Sun Pier and Chatham Historic Dockyard Conservation Areas and potential World Heritage Site. There are no nature designations along this frontage. Channel constrained.			
Position of 'the line': Existing defences (sea walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic and residential assets of the frontage and backing flood and erosion risk areas.		
Advance the Line	To be appraised. Will increase flood and erosion protection to assets.		
Managed Retreat	No benefits given that development extends to shoreline.		
No Active Intervention	No benefits given that development extends to shoreline, uncontrolled loss of anthropogenic assets to flooding and erosion.		

ST MARY'S ISLAND TO THE STRAND			
Summary description: Dense urban and recreational development along the frontage.			
Position of 'the line': Existing defences (sea walls, stone revetted banks)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic assets of the frontage and backing flood and erosion risk areas.		
Advance the Line	To be appraised. Will increase flood and erosion protection to assets.		
Managed Retreat	No benefits in the short / medium term, given that residential and recreational are located on the shoreline.	To be appraised for long-term environmental and technical benefits (assumes relocation of assets in the previous epochs).	
No Active Intervention	No benefits given that development extends to shoreline, uncontrolled loss of anthropogenic assets to flooding and erosion.		
<i>Note: To include HTL (0-50 years) followed by MR (50-100 years)</i>			

THE STRAND TO WEST OF MOTNEY HILL			
Summary description: Rural environment consisting of villages and recreational development interspersed with undeveloped grazing marsh and agricultural areas. Intertidal grazing marsh, saltmarsh and mudflat are of nature conservation importance.			
Position of 'the line': Existing defences (sea walls, stone revetted banks)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the recreational assets of the frontage and backing flood risk areas.		
Advance the Line	To be appraised for technical benefits. Will also increase flood and erosion protection to assets.		
Managed Retreat	To be appraised for environmental benefits, will protect residential assets. Change managed in a controlled manner.		
No Active Intervention	To be appraised for environmental benefits.		

MOTNEY HILL TO KINGSFERRY BRIDGE			
Summary description: Sparsely populated area consisting predominantly of low lying agricultural and marsh land, fronted by areas of saltmarsh and mudflat. Intertidal areas are of nature conservation importance. A small section of frontage forms part of the Lower Halstow Conservation Area.			
Position of 'the line': Existing defences (stone revetted banks)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect residential assets, freshwater habitats and backing flood risk areas.		
Advance the Line	To be appraised for technical benefits. Will also increase flood and erosion protection to assets. Will protect freshwater habitats.		
Managed Retreat	To be appraised for environmental benefits. Change managed in a controlled manner.		
No Active Intervention	Limited short term potential due to uncontrolled loss of freshwater habitats, agricultural land and inundation of residential assets.	To be appraised for long-term environmental benefits.	
<i>Note: To include HTL (0-50 years) followed by NAI (50-100 years) and MR (0-50 years) followed by NAI (50-100 years)</i>			

KINGSFERRY BRIDGE TO MILTON CREEK (SOUTH BANK)			
Summary description: Relatively undeveloped section of shoreline, however, small areas of industrial/commercial development/docks at Kemsley and along Milton Creek. Along rural frontages, agricultural and freshwater grazing marsh land fronts intertidal saltmarsh and mudflat. Intertidal areas and freshwater grazing marsh near Kingsferry Bridge are of nature conservation interest.			
Position of 'the line': Existing defences (earth embankments with revetment)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect commercial assets, freshwater habitats and backing flood risk areas.		
Advance the Line	To be appraised. Will increase flood and erosion protection to assets. Will protect freshwater habitats.		
Managed Retreat	To be appraised for environmental and technical benefits, will protect commercial assets. Change managed in a controlled manner.		
No Active Intervention	No benefits. Uncontrolled loss of freshwater habitats and inundation of commercial assets.	To be appraised for environmental benefits.	

MILTON CREEK TO FAVERSHAM CREEK (SOUTH BANK)			
Summary description: Relatively undeveloped section of shoreline, however, small areas of industrial/commercial development along Milton Creek, OareCreek and Faversham Creek. Along rural frontages, agricultural and freshwater grazing marsh land fronts intertidal saltmarsh and mudflat. Intertidal areas and freshwater grazing marsh are of nature conservation interest.			
Position of 'the line': Existing defences (earth embankments with revetment)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the freshwater habitats and industrial/commercial assets of the frontage and backing flood risk area.		
Advance the Line	To be appraised. Will increase flood and erosion protection to assets. Will protect freshwater habitats.		
Managed Retreat	To be appraised for environmental benefits, will protect some of the industrial/commercial assets from flooding. Change managed in a controlled manner.		
No Active Intervention	Limited short term potential due to an uncontrolled flooding of assets and freshwater habitat.		To be appraised for potential long-term environmental benefits.
<i>Note: To include HTL (0-50 years) followed by NAI (50-100 years) and MR (0-50 years) followed by NAI (50-100)</i>			

SHELL NESS TO KINGSFERRY BRIDGE (NORTH BANK)			
Summary description: An undeveloped section of shoreline which is of nature conservation value. Freshwater grazing marsh, intertidal marsh and mudflat are of nature conservation interest.			
Position of 'the line': High ground, elsewhere existing defences (earth embankments, stone / rock revetments)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the freshwater habitat, anthropogenic assets and backing flood risk area.		
Advance the Line	To be appraised. Will increase flood and erosion protection to assets. Will protect freshwater habitats.		
Managed Retreat	To be appraised for environmental and technical benefits, will protect some of the anthropogenic assets from flooding. Change managed in a controlled manner.		
No Active Intervention	Limited short term potential due to an uncontrolled loss of assets and freshwater habitat to marine inundation.		To be appraised for potential long-term environmental and technical benefits.
<i>Note: To include HTL (0-50 years) followed by NAI (50-100 years) and MR (0-50 years) followed by NAI (50-100 years)</i>			

KINGSFERRY BRIDGE TO RUSHENDEN			
Summary description: Undeveloped section of shoreline. Intertidal, coastal grazing marsh and reedbeds areas are of nature conservation interest.			
Position of 'the line': Existing defences (earth embankments, quay walls, sea walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the freshwater habitat and backing flood risk area.		
Advance the Line	To be appraised. Will increase flood and erosion protection to freshwater habitats.		
Managed Retreat	To be appraised for environmental and technical benefits, will protect assets at Rushenden from flooding. Change managed in a controlled manner.		
No Active Intervention	Limited short term potential due to an uncontrolled inundation of freshwater habitat.	To be appraised for potential long-term environmental and technical benefits.	
<i>Note: To include HTL (0-50 years) followed by NAI (50-100 years) and MR (0-50 years) followed by NAI (50-100 years)</i>			

RUSHENDEN TO SHEERNESS			
Summary description: Undeveloped section of shoreline south of Sheerness, otherwise urban areas and docks. Important heritage features are located along this frontage, a section of which forms part of the Queenborough Conservation Area. Intertidal, coastal grazing marsh and reedbeds are of nature conservation interest.			
Position of 'the line': Existing defences (earth embankments, quay walls, sea walls)			
Policy	0-20 years (2025)	20-50 years(2055)	50-100 years (2105)
Hold the Line	To be appraised. Will protect the economic and heritage assets along the frontage and backing flood risk areas.		
Advance the Line	To be appraised. Will increase flood and erosion protection to economic and heritage assets. Will enhance the economic assets and improve infrastructure links.		
Managed Retreat	Limited benefits given that the developments extend to the shoreline.	To be appraised (discrete area immediately north of Queenborough ONLY) for environmental and technical benefits.	
No Active Intervention	Limited potential process benefits and uncontrolled loss of significant area of urban development to flooding and erosion.		
<i>Note: To include HTL (0-20 years) followed by MR (20-100 years)</i>			

F5 Policy scenarios for assessment: methodology

F5.1 INTRODUCTION

Due to sediment linkages and interdependencies along the shorelines of the two estuaries, it is appropriate to assess the shorelines as a whole, rather than a number of discrete sections. Tables in **Section F4** highlight the option(s) agreed by the CSG to be reviewed, from which the proposed preferred policy will be ascertained.

F5.2 POLICY SCENARIOS TO APPRAISE AT FILTER 2

The potential policy option selection process involves consideration of the objectives met, technical feasibility, and likely economic justification:

- The possible benefits and opportunities arising from each policy option in relation to the objectives for a frontage are identified in the Issues and Objectives Table, for each policy, in each of the three epochs (**Appendix G**);
- Technical feasibility is investigated in the shoreline interaction and response statements (**Appendix G**); and,
- To determine the latter, a broad assessment was made of assets potentially at risk using the baseline scenario 'No Active Intervention' (NAI). To facilitate this, the assessment used the NAI mapping produced as part of the baseline scenario assessment (**Appendix C**).