

## 6 ACTION PLAN

### 6.1 Objectives

The objectives of the Medway Estuary and Swale Action Plan are to:

- facilitate implementation of the Shoreline Management Plan (SMP) policies;
- identify when and where works are expected;
- identify and/or promote studies to further or improve understanding where this is required to resolve policy and/or implementation;
- develop a prioritised programme of strategy plan development and outline plan of possible schemes;
- establish actions required to deal with the consequences of the plan;
- establish actions required to resolve uncertainties;
- promote use of the SMP recommendations in spatial planning;
- establish a process for informing stakeholders of progress;
- identify procedures for the management of the SMP until its next review; and,
- establish a framework to monitor progress against the action plan and initiate future SMP review.

The Action Plan will be implemented by the Lead Authority in partnership with others as necessary. For each Estuary Wide or Policy Unit level action, the SMP proposes lead authorities although final work allocation will be determined by the South East Coastal Group. Action plan progress will be monitored and reviewed by the South East Coastal Group and reported in line with National Indicator 189 (or similar).

The following sections outline the steps required to ensure SMP recommendations are taken forward in the short term, both in planning and coastal defence, and that necessary actions to facilitate the implementation of the longer-term policies are initiated as appropriate.

The Action Plan identifies the steps to be taken in the period up to the next review of the SMP. This is nominally a 5 - 10 year process, however, the SMP provides for reassessment of this timescale should an earlier review be considered necessary.

### 6.2 Coastal Defence Management Activities

In the most part, the policy recommendations of the Medway Estuary and Swale SMP will be implemented through the process of coastal defence strategy development and the subsequent implementation of coast defence schemes or other coastal management actions. The process of implementation will be underpinned by monitoring of the shoreline to identify ongoing behaviour (to confirm assumptions made in scenario development), together with targeted study and investigation where specific uncertainties need to be addressed to enable policy (short or longer term) implementation.

In this area, parts of the frontage are routinely monitored as part of the South East Strategic Regional Coastal Monitoring Programme. This monitoring is undertaken based on frontage risk and is reviewed

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every five years to ensure that appropriate levels of monitoring and reporting is being carried out. The strategic regional monitoring programme is an essential part of the shoreline management processes and a general action from the SMP is to continue with this programme of monitoring and review it every 5 years. Where the Action Plan table below refers to the Strategic Regional Monitoring Programme this includes the proper storage and analysis of data to inform management practices.

The consultation process has also highlighted a need to engage in a more effective way with local politicians, some stakeholders and the general public outside of the SMP process. Specific areas to target may be planning officers, Local Councillors and Local Schools.

Table 6.1 (Key Background Information) identifies the key technical, economic and environmental constraints that apply to the SMP and directs how to approach future work

Table 6.2 (Estuary Wide Actions) identifies the common estuary wide actions required to deliver the SMP effectively. This includes monitoring and technical studies that are required to resolve uncertainties and inform the specific policies and actions.

Table 6.3 (Unit Level Actions) identifies the actions required to facilitate the implementation of the SMP policies for each individual policy unit. It identifies:

- the recommended SMP policy for the unit;
- the nature of works required to implement the short term policy;
- any specific requirements for review of monitoring data from the unit;
- whether studies are required to either clarify or refine the policies or facilitate the medium to long term policies; and,
- the organisation who will be responsible for promoting the actions.

Both Tables set a prioritised programme for undertaking these actions. The relative priorities of each action are identified as:

- Very High (VH) within the next two years
- High (H) within the next five years;
- Medium (M) within the next ten years; and,
- Low (L) within the next twenty years.

For any policy other than No Active Intervention, Table 6.3 of the SMP assumes that all appropriate maintenance activities are undertaken from year 0 for all relevant epochs of the plan e.g. a Low priority action assumes that all required maintenance is undertaken to the coastal defence from year 0 of the plan until that action is undertaken.

It should be noted that the outcomes of ongoing Thames Estuary 2100 (TE2100) studies should be incorporated into these further studies where appropriate.

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**Table 6.1: Key Background Information**

<b>Group</b>	<b>Constraint</b>	<b>SMP Implementation</b>
Technical	Limitations of data relating to estuarine processes	Implement Estuary Wide Actions EW2&3 (Table 6.2) as Very High Priority work and a pre-cursor to inform future coastal management strategies.
Technical	<p>From the desktop research and analysis undertaken for the SMP, the process trends and linkages within the Medway &amp; Swale estuaries can be separated into 3 separate reaches. These reaches have different process drivers, limited interaction and management needs.</p> <p><b>Reach 1 – Upper Medway Estuary</b> (Allington Lock to Rochester).</p> <p><b>Reach 2 – Middle &amp; Outer Medway Estuary</b> (Rochester to Isle of Grain/Sheerness, including western Swale from A249 Isle of Sheppey Crossing to confluence)</p> <p><b>Reach 3 – The Swale</b> (Isle of Sheppey A249 Crossing to Shellness/Faversham Creek)</p>	<p>The SMP recommends implementation of 3 Flood &amp; Coastal Management Strategies aligned to these reaches under Estuary Wide Action EW4 (Table 6.3).</p> <p>These strategies should follow Estuary Wide Action EW3 (Table 6.2) so that SMP uncertainties are closed out.</p> <p>The development of strategies should, wherever possible, precede any changes in estuary management to ensure that reaches are managed as a whole and interactions are controlled.</p>
Technical	<p><b>Reach 1 – Upper Medway Estuary</b> (Allington to Rochester).</p> <p>Typically fluvial geomorphology. Changes in estuary flows (sea level rise/ storminess) and defence alignment (managed realignment) have high potential to affect stability of channel and defences downstream to Rochester, Defences need to change alignment but detail must be informed by geomorphological understanding of whole Upper Medway Estuary. Uninformed and uncontrolled change to defence alignments may have serious detrimental effects up and downstream.</p>	<p>Implement Estuary Wide Action EW3 (Table 6.2) geomorphology studies before other actions in this reach.</p> <p>Manage this reach as whole, not individual units. Implement Estuary Wide Action EW4 prior to planned capital investment.</p>

<b>Group</b>	<b>Constraint</b>	<b>SMP Implementation</b>
Technical	<p><b>Reach 2 – Middle &amp; Outer Medway Estuary</b> (Rochester to Isle of Grain/Sheerness, including western Swale from A249 Isle of Sheppey Crossing to confluence)</p> <p>The constrained outer estuary mouth between Isle of Grain &amp; Sheerness governs the processes in this reach. The mouth is currently constrained and very narrow compared with the bankfull width of the middle estuary. As such the middle estuary is currently primarily accreting and key to managing designated habitats. With sea level rise, accretion rates in the middle estuary will decrease and the outer estuary will be subject to increasing erosion.</p> <p>Any changes to the alignment at the mouth have a significant impact on estuary processes in the reach, changes elsewhere have limited impact.</p>	<p>Pay particular attention to changes of alignment at the mouth of the outer estuary.</p>
Technical	<p><b>Reach 3 – The Swale</b> (Isle of Sheppey Crossing to Shellness/Faversham Creek)</p> <p>The Swale has an enormous floodplain when compared to the current channel alignment. The no active intervention scenario has a significant destabilising impact within this reach and adjacent reaches. The channel is not in equilibrium and needs to change to accommodate sea level rise but changes must be carefully managed as a whole.</p>	<p>Implement Estuary Wide Action EW3 (Table 6.2) geomorphology studies before other actions in this reach.</p> <p>Manage this reach as whole, not individual units. Implement Estuary Wide Action EW4 prior to planned capital investment.</p>
Environmental	<p>The Middle &amp; Outer Medway Estuary and The Swale are heavily designated under the Habitats Regulations as is the adjoining Thames Estuary. Coastal management will often be driven by compliance with this legislation.</p> <p>The available data on the condition and behaviour of the designated interest features is limited. A fuller dataset is required to reinforce or revise the Habitats Regulations Assessment</p> <p>The SMP Actions and Policies are key to managing local Habitats Regulations issues.</p> <p>The SMP Policies &amp; Actions must be coordinated across the whole SMP area in line with the Habitats Regulations Assessment and the assessment reviewed with any variations. The approved Habitats Regulations Assessment justifies both the maintenance and new work recommended in the SMP.</p>	<p>Implement Estuary Wide Action EW3 (Table 6.2) as Very High Priority work and a pre-cursor to inform future coastal management strategies.</p> <p>Individual policies cannot be implemented without consideration of SMP as a whole and Habitats Regulations issues must be at the forefront of local coastal management decisions.</p> <p>All future coastal managers should pay particular attention to the Habitats Regulations Assessments for both this and in combination activities.</p> <p>As long as the SMP is being implemented to plan, maintenance activities do not require separate Habitats Regulations Assessment.</p>

<b>Group</b>	<b>Constraint</b>	<b>SMP Implementation</b>
Economic	<p>The hinterland is primarily rural with major settlements and infrastructure in only a few policy units. As such, in purely the economic appraisal of the SMP, some of the individual policies are uneconomic (<math>cbr &lt; 1</math>).</p> <p>It is imperative to note that:</p> <ol style="list-style-type: none"> <li>1. Across the whole SMP, the suite of policies is economic (<math>CBR &gt; 4</math>).</li> <li>2. Where individual policies are uneconomic, the hinterland and estuary is designated under the Habitats Regulations and compliance with the law overrides standard economic justification.</li> <li>3. Where individual policies are uneconomic, adopting a policy of No Active Intervention would have such an impact on estuarine processes that the wider damages would significantly outweigh the cost of intervention.</li> </ol>	<p>The business case for intervention must be made strategically and not unit by unit.</p> <p>Implement Estuary Wide Action EW4 (Table 6.2) as High Priority work and seek strategic business case approval.</p>

**Table 6.2: Estuary Wide Actions.**

<b>Estuary SMP Wide Action</b>	<b>Action promoted by</b>	<b>Code</b>	<b>Priority</b>
<p>Assign policy unit specific actions to relevant member of the Coastal Group. Assigned actions to be resourced by relevant coastal group member.</p> <p>Where relevant, inform non-coastal group members of the SMP recommendations and the actions required of them</p>	South East Coastal Group	EW1	VH
Continue Regional Coastal Monitoring Programme topographic and habitat surveys on the Medway Estuary & Swale	Environment Agency (lead), South East Coastal Group	EW2	VH
<p>Execute Habitats Regulations Assessment Conditions through the implementation of</p> <ol style="list-style-type: none"> <li>a) Medway Estuary &amp; Swale Habitat &amp; Process Study (MESHPS)</li> <li>b) Regional Habitat Creation Programme</li> </ol> <p>MESHPS shall include:</p> <ol style="list-style-type: none"> <li>i) Ecological monitoring to establish baseline information of Natura 2000 site interest features and habitats. Survey and investigation to determine least damaging managed realignment extent</li> <li>ii) Geomorphological monitoring in estuaries to establish robust baseline understanding. Building on this, simulate and forecast the future morphological evolution of the Medway Estuary &amp; Swale taking into consideration sediment supply, climate change, sea level rise and increased fluvial flows.</li> </ol>	<p>Env. Agency (lead), Natural England (lead ecology)</p> <p>As above + Maritime Councils</p>	EW3	VH VH

<p>Progress the following Strategies within the SMP area:</p> <ol style="list-style-type: none"> <li>1. <b>Upper Medway Estuary</b> (Allington Lock to Rochester).</li> <li>2. <b>Middle &amp; Outer Medway Estuary</b> (Rochester to Isle of Grain/Sheerness, including western Swale from A249 Isle of Sheppey Crossing to confluence)</li> <li>3. <b>The Swale</b> (Isle of Sheppey A249 Crossing to Shellness/Faversham Creek)</li> </ol> <p>These strategies will be developed in line with the current guidance of the time. They will determine the preferred flood and coastal risk management option, alignment and level of protection required to achieve the SMP policies.</p> <p>For the SMP to be implementable, the business case for intervention should be made strategically, not for stand alone schemes in stand alone units. (see Table 6.1, Economics). The Strategies should be progressed in a coordinated way or in a package to ensure that process linkages and common impacts are managed properly.</p> <p>The strategies will rely upon and be informed by the Medway Estuary &amp; Swale Habitat &amp; Process Study (MESHPS). As such, work on the MESHPS shall commence before strategy development</p>	<p>Environment Agency (lead), Natural England and Maritime Councils</p>	<p>EW4</p>	<p>H  H</p>
<p>Roll out and integrate SMP into Development Control via Kent Planning Officers group, one to one meetings, Environment Agency Development Control</p>	<p>Medway DC (lead), TMBC, Swale BC, EA</p>	<p>EW5</p>	<p>VH</p>
<p>Share findings of SMP with partner bodies and strategic plans to ensure coordinated coastal management .Continuously review the progress and cross compliance of adjacent studies.</p>	<p>EA (lead) supported by coastal group</p>	<p>EW6</p>	<p>VH</p>
<p>Develop Communications Plan and Programme to inform people affected by a change in coastline and to start the adaptation process. This shall include a plan for securing or continuing private management and funding of defences where appropriate</p>	<p>All, KCC (lead)</p>	<p>EW7</p>	<p>H</p>
<p>Disseminate lessons and share knowledge on SMP2 development with others (including Habitats Regulations, Water Framework &amp; Strategic Environmental Assessment)</p>	<p>Environment Agency</p>	<p>EW8</p>	<p>VH</p>

**Table 6.3: Unit Level Actions: Coastal defence management activities, monitoring and study requirements**

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
E4 01	<b>Grain Tower to Colemouth Creek</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain revetments and sea walls around the commercial and industrial assets.	<b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Survey, record and monitor Scheduled Monuments.	<b>H</b>  <b>L</b>	Coastal Defence Strategy to develop the optimum hold the line solution, to also include a fuller economic evaluation.  Ongoing TE2100 studies and the Greater Thames Estuary CHaMP should be incorporated into the strategy.	<b>L</b>	Thamesport; E.ON UK Medway Council Environment Agency English Heritage
E4 02	<b>Colemouth Creek to Bee Ness Jetty</b>	MR with localised HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline. Construct realigned set-back defences where MR (dependant on the outcomes of further studies regarding MR and realignment positions). Undertake engineering works and maintenance activities to hold the defence line along localised sections of embankment and revetment, to protect key assets.	<b>H</b>  <b>M</b>  <b>L</b>	Undertake study to establish area of acceptable modification of freshwater habitat Monitor frontage as part of the Strategic Regional Monitoring Programme. Survey, record and monitor unknown buried heritage features in realignment area. Monitor habitat changes in MR area.	<b>H</b>  <b>H</b>  <b>M</b>  <b>M</b>	Studies will be required to: - investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk); - investigate the standard of protection, extent and alignment of set-back defences; - undertake a fuller economic evaluation; and, - determine the acceptable modification and best management of designated freshwater habitat.	<b>H</b>  <b>H</b>  <b>H</b>  <b>H</b>	Medway Council Environment Agency Network Rail English Heritage Natural England
E4 03	<b>Kingsnorth Power Station</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to	<b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.	<b>H</b>			E.ON UK Environment

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
					maintain embankments and revetments around the industrial assets and infrastructure.						Agency
E4 04	<b>Power Station to Cockham Wood</b>	MR with localised HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline. Construct realigned set-back defences where MR (dependant on the outcomes of further studies regarding MR and realignment positions). Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments, revetments and seawalls along localised sections protecting key assets.	<b>H</b> <b>M</b> <b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Undertake study to establish area of acceptable modification of freshwater habitat Survey, record and monitor unknown buried heritage features in realignment area. Monitor habitat changes in MR area.	<b>H</b> <b>H</b> <b>M</b> <b>M</b>	Studies will be required to: - investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk); - investigate the standard of protection, extent and alignment of set-back defences; - undertake a fuller economic evaluation; and, - determine the acceptable modification and best management of designated freshwater habitat.	<b>H</b> <b>H</b> <b>H</b> <b>H</b>	Medway Council Environment Agency Residential Marine English Heritage Natural England
E4 05	<b>Cockham Wood</b>	NAI	NAI	NAI			Monitor shoreline retreat and erosion, and survey as part of the Strategic Regional Monitoring programme and monitor the Scheduled Monument, to pro-actively implement exit plan strategy if and when required.	<b>H</b>	Develop plan for management of shoreline retreat and erosion, relocation of paths, recording heritage features.	<b>M</b>	Medway Council English Heritage Environment Agency
E4 06	<b>Lower Upnor to Medway</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to	<b>M</b> – between	Survey, record and monitor Scheduled Monument which	<b>M</b>			Medway Council Environment



Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
	<b>Bridge</b>				hold the defence line, to maintain sea walls, revetments and sheet piling.	Rochester Bridge and Medway Bridge <b>L</b> – between Lower Upnor and Rochester Bridge	forms part of the defence line.				Agency English Heritage
E4 07	<b>Medway Bridge to North Halling</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and small sections of sea wall.	<b>H</b>					Medway Council Environment Agency Network Rail

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
E4 08	<b>North Halling to Snodland</b>	MR with localised HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline. Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and concrete walls along localised sections. Construct realigned set-back defences where MR (dependant on the outcomes of further studies regarding MR and realignment positions).	H H M	Survey, record and monitor Scheduled Monuments and unknown buried heritage features in realignment area. Monitor habitat changes in MR area.	H M	Studies will be required to: <ul style="list-style-type: none"> <li>- investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk);</li> <li>- investigate the standard of protection, extent and alignment of set-back defences;</li> <li>- investigate how the proposed Medway crossing will fit in with the recommended policy;</li> <li>- undertake a fuller economic evaluation; and,</li> <li>- investigate contamination issues where MR is proposed.</li> </ul>	H H H H	Medway Council Environment Agency English Heritage
E4 09	<b>Snodland to Allington Lock</b>	HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline. Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and walls.	H M	Survey, record and monitor Scheduled Monuments and unknown buried heritage features in realignment area.	M	Studies will be required to: <ul style="list-style-type: none"> <li>- investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk);</li> <li>- investigate the standard of protection, extent and alignment of set-back defences;</li> <li>- undertake a fuller economic evaluation; and,</li> <li>- investigate contamination issues</li> </ul>	M M M	Environment Agency English Heritage

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
									where MR is proposed.	<b>M</b>	
E4 10	<b>Allington Lock to North Wouldham</b>	HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline.  Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and walls.	<b>H</b>  <b>H</b> – between Allington lock and opposite the Aylesford Paper Mills  <b>M</b> – between opposite Aylesford Paper Mills and north Wouldham	Survey, record and monitor Scheduled Monuments and unknown buried heritage features in realignment area.	<b>M</b>	Studies will be required to:  - investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk);  - undertake a fuller economic evaluation; and,  - investigate the standard of protection, extent and alignment of set-back defences;	<b>M</b>  <b>M</b>  <b>M</b>	Medway Council  Environment Agency  English Heritage
E4 11	<b>Wouldham Marshes</b>	MR	MR	MR	Engage with affected parties to enable adaptation to the change in coastline.  Undertake engineering works and maintenance activities to hold the line in sections, to maintain embankments protecting key assets.  Construct realigned set-back defences where MR	<b>H</b>  <b>M</b>  <b>M</b>	Survey, record and monitor unknown buried heritage features in realignment area.  Monitor habitat changes in MR area.	<b>M</b>  <b>M</b>	Studies will be required to:  - investigate the MR policy (best technical, environmental and economic option that best manages flood risk);  - undertake a fuller economic evaluation; and,  - investigate the standard of protection, extent and alignment of set-back defences.	<b>H</b>  <b>H</b>  <b>H</b>	Medway Council  Environment Agency  English Heritage

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
					(dependant on the outcomes of further studies regarding MR and realignment positions).						
E4 12	<b>Medway Bridge to West St Mary's Island</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain seawalls.	<b>L</b>	Survey, record and monitor Scheduled Monuments and historic defences.	<b>M</b>			Medway Council Chatham Dockyard Environment Agency English Heritage
E4 13	<b>St Mary's Island to The Strand</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, by maintaining and improving seawalls and revetments.	<b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Survey, record and monitor historic assets and defences.	<b>H</b> <b>M</b>			Medway Council Environment Agency English Heritage
E4 14	<b>The Strand to West Motney Hill</b>	HTL	MR	MR	Engage with affected parties to enable adaptation to the change in coastline. Undertake engineering works and maintenance activities to hold the defence line, to maintain revetted banks.	<b>H</b> <b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Undertake study to establish area of acceptable modification of freshwater habitat Survey, record and monitor unknown buried heritage features in realignment area.	<b>H</b> <b>H</b> <b>L</b>	Studies will be required to: <ul style="list-style-type: none"> <li>- investigate the MR policy (best technical, environmental and economic option that best manages flood risk);</li> <li>- investigate the standard of protection, extent and alignment of set-back defences;</li> <li>- undertake a fuller economic evaluation; and,</li> <li>- investigate contamination issues where MR is proposed.</li> </ul>	<b>M</b> <b>M</b> <b>M</b> <b>M</b>	Medway Council Environment Agency English Heritage

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
E4 15	<b>Motney Hill to Ham Green</b>	MR with localised HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline. Undertake engineering works and maintenance activities to hold the defence line along localised sections, to maintain revetted banks protecting key assets. Construct realigned set-back defences where MR (dependant on the outcomes of further studies regarding MR and realignment positions).	H  L  M	Monitor frontage as part of the Strategic Regional Monitoring Programme. Undertake study to establish area of acceptable modification of freshwater habitat Survey, record and monitor unknown buried heritage features in realignment area. Monitor habitat changes in MR area.	H  H  M  M	Studies will be required to: - investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk); - investigate the standard of protection, extent and alignment of set-back defences; - investigate contamination issues where MR is proposed; - undertake a fuller economic evaluation; and, - determine the acceptable modification and best management of designated freshwater habitat.	H  H  H  H  H	Medway Council Swale Borough Council Environment Agency English Heritage Natural England
E4 16	<b>Ham Green to East of Upchurch</b>	NAI	NAI	NAI	Engage with affected parties to enable adaptation to the change in coastline.	H	Monitoring shoreline retreat and erosion as part of the Strategic Regional Monitoring Programme, to pro-actively implement exit plan strategy if required. Survey and record unknown buried heritage features.	H  L	Develop exit plan for management of shoreline retreat and erosion, and safe removal of greenhouses and property if required.	L	Swale Borough Council Environment Agency English Heritage
E4 17	<b>East Upchurch to East Lower</b>	MR with local	MR with local	MR with local	Engage with affected parties to enable adaptation to the change in coastline.	H	Monitor frontage as part of the Strategic Regional Monitoring Programme.	H	Studies will be required to: - investigate the MR with localised HTL policy (best technical,	H	Swale Borough Council Environment

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
	<b>Halstow</b>	lise d HTL	lise d HTL	lise d HTL	Construct realigned set-back defences where MR (dependant on the outcomes of further studies regarding MR and realignment positions).  Undertake engineering works and maintenance activities to hold the defence line along localised sections, to maintain revetted banks.	<b>M</b>       <b>L</b>	Survey, record and monitor unknown buried heritage features in realignment area.  Monitor habitat changes in MR area.	<b>M</b>   <b>M</b>	environmental and economic option that best manages flood risk);  - undertake a fuller economic evaluation; and,  - investigate the standard of protection, extent and alignment of set-back defences.	<b>H</b>  <b>H</b>	Agency English Heritage
E4 18	<b>Barksore Marshes</b>	MR	NAI	NAI	Engage with affected parties to enable adaptation to the change in coastline.  Construct realigned defences in a set-back position where required  (dependant on the outcomes of further studies regarding MR and realignment positions).	<b>H</b>      <b>M</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.  Monitoring to examine present and future shoreline evolution, e.g. erosion rates, to pro-actively implement exit plan strategy for loss of road if and when required.  Undertake study to establish area of acceptable modification of freshwater habitat  Monitor habitat changes in MR area.  Survey, record and monitor unknown buried heritage features in realignment area.	<b>H</b>   <b>H</b>   <b>H</b>  <b>M</b>  <b>M</b>	Studies will be required to:  - investigate the MR policy (best technical, environmental and economic option that best manages flood risk);  - investigate the standard of protection, extent and alignment of set-back defences;  - investigate contamination issues where MR is proposed;  - undertake a fuller economic evaluation;  - determine the acceptable modification and best management of designated freshwater habitat; and,  - investigate the viability of a future NAI management option.	<b>H</b>   <b>H</b>   <b>H</b>  <b>H</b>  <b>M</b>	Swale Borough Council Environment Agency English Heritage Natural England

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
E4 19	<b>Funton to Raspberry Hill</b>	NAI	NAI	NAI	Engage with affected parties to enable adaptation to the change in coastline.	<b>H</b>	Monitoring shoreline retreat and erosion as part of the Strategic Regional Monitoring Programme, to pro-actively implement exit plan strategy if required.  Survey and record unknown buried heritage features.	<b>H</b>  <b>L</b>	Develop exit plan for management of shoreline retreat and erosion, and eventual loss of the road.	<b>L</b>	Swale Borough Council Environment Agency English Heritage KCC Highways
E4 20	<b>Chetney Marshes</b>	MR	MR	MR	Engage with affected parties to enable adaptation to the change in coastline.  Undertake engineering works and maintenance activities to hold the defence line along localised sections, to maintain revetted banks protecting key assets.  Construct realigned set-back defences where MR (dependant on the outcomes of further studies regarding MR and realignment positions).	<b>H</b>  <b>M</b>  <b>M</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.  Bird surveys due to the importance of the area for wildfowl breeding which may be affected with MR.  Survey, record and monitor unknown buried heritage features in realignment area.  Undertake study to establish area of acceptable modification of freshwater habitat  Monitor habitat changes in MR area.	<b>H</b>  <b>H</b>  <b>H</b>  <b>H</b>  <b>M</b>	Studies will be required to: <ul style="list-style-type: none"> <li>- investigate the MR policy (best technical, environmental and economic option that best manages flood risk);</li> <li>- investigate the standard of protection, extent and alignment of set-back defences;</li> <li>- undertake a fuller economic evaluation; and,</li> <li>- determine the acceptable modification and best management of designated freshwater habitat.</li> </ul>	<b>H</b>  <b>H</b>  <b>H</b>  <b>H</b>	Swale Borough Council Environment Agency English Heritage Natural England
E4 21	<b>Kingsferry Bridge to Milton Creek</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and	<b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.	<b>H</b>			Swale Borough Council Environment

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
					revetments.						Agency
E4 22	<b>Milton Creek</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and revetments.	<b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Monitor frontage as part of the Strategic Regional Monitoring Programme. Survey, record and monitor unknown buried heritage features in Milton Creek	<b>H</b> <b>H</b> <b>L</b>	Studies will be required to investigate the affect of groundwater extraction on groundwater levels.	<b>M</b>	Swale Borough Council Environment Agency English Heritage
E4 23	<b>Murston Pits to Faversham</b>	HTL	MR with localised HTL	MR with localised HTL	Engage with affected parties to enable adaptation to the change in coastline. Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and revetments.	<b>H</b> <b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Undertake study to establish area of acceptable modification of freshwater habitat Survey, record and monitor unknown buried heritage features in the creeks.	<b>H</b> <b>H</b> <b>L</b>	Studies will be required to: <ul style="list-style-type: none"> <li>- determine the acceptable modification and best management of designated freshwater habitat;</li> <li>- investigate the MR with localised HTL policy (best technical, environmental and economic option that best manages flood risk);</li> <li>- investigate the impact on groundwater level management;</li> <li>- investigate the standard of protection, extent and alignment of set-back defences; and,</li> <li>- undertake a fuller economic evaluation.</li> </ul>	<b>H</b> <b>M</b> <b>M</b> <b>M</b> <b>M</b>	Swale Borough Council Environment Agency English Heritage Natural England



Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
E4 24	<b>Faversham to Nagden</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and revetments.	<b>L</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Survey, record and monitor unknown buried heritage features in Faversham Creek.	<b>H</b>  <b>L</b>			Swale Borough Council Environment Agency English Heritage
E4 25	<b>Shell Ness to Sayes Court</b>	MR	MR	MR	Engage with affected parties to enable adaptation to the change in coastline. Construct realigned set-back defences (dependant on the outcomes of further studies regarding MR and realignment positions).	<b>H</b>  <b>M</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme. Undertake study to establish area of acceptable modification of freshwater habitat Survey, record and monitor unknown buried heritage features in realignment area. Monitor habitat changes in MR area.	<b>H</b>  <b>H</b>  <b>M</b>  <b>M</b>	Studies will be required to: <ul style="list-style-type: none"> <li>- investigate the MR policy (best technical, environmental and economic option that best manages flood risk);</li> <li>- investigate the standard of protection, extent and alignment of set-back defences;</li> <li>- develop an exit plan for the safe relocation of people and removal of properties at Shell Ness;</li> <li>- investigate the impact on groundwater level management;</li> <li>- undertake a fuller economic evaluation; and,</li> <li>- determine the acceptable modification and best management of designated freshwater habitat.</li> </ul>	<b>H</b>  <b>H</b>  <b>H</b>  <b>H</b>  <b>H</b>	Swale Borough Council Environment Agency English Heritage Natural England
E4 26	<b>Sayes Court to North Elmley Island</b>	MR	MR	MR	Engage with affected parties to enable adaptation to the change in coastline.	<b>H</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.	<b>H</b>	Studies will be required to: <ul style="list-style-type: none"> <li>- investigate the MR policy (best technical, environmental and</li> </ul>	<b>H</b>	Swale Borough Council Environment

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
					Construct realigned set-back defences  (dependant on the outcomes of further studies regarding MR and realignment positions).	<b>M</b>	Undertake study to establish area of acceptable modification of freshwater habitat  Survey, record and monitor unknown buried heritage features in realignment area.  Monitor habitat changes in MR area.	<b>H</b>  <b>M</b>  <b>M</b>	economic option that best manages flood risk);  - investigate the standard of protection, extent and alignment of set-back defences;  - investigate the impact on groundwater level management;  - undertake a fuller economic evaluation; and,  - determine the acceptable modification and best management of designated freshwater habitat.	<b>H</b>  <b>H</b>  <b>H</b>  <b>H</b>	Agency English Heritage Natural England
E4 27	<b>North Elmley Island to Kingsferry Bridge</b>	HTL	MR	MR	Engage with affected parties to enable adaptation to the change in coastline.  Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and revetments.	<b>H</b>  <b>M</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.  Undertake study to establish area of acceptable modification of freshwater habitat  Survey, record and monitor unknown buried heritage features in realignment area	<b>H</b>  <b>H</b>  <b>L</b>	Studies will be required to:  - determine the acceptable modification and best management of designated freshwater habitat;  - investigate the MR policy (best technical, environmental and economic option that best manages flood risk);  - investigate the standard of protection, extent and alignment of set-back defences;  - investigate the impact on groundwater level management; and,	<b>H</b>  <b>M</b>  <b>M</b>  <b>M</b>	Swale Borough Council Environment Agency English Heritage Natural England

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
								- undertake a fuller economic evaluation.	<b>M</b>		
E4 28	<b>Kingsferry Bridge to Rushenden</b>	HTL	MR	MR	Engage with affected parties to enable adaptation to the change in coastline.  Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and revetments.	<b>H</b>  <b>M</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.  Undertake study to establish area of acceptable modification of freshwater habitat  Survey, record and monitor unknown buried heritage features in realignment area	<b>H</b>  <b>H</b>  <b>L</b>	Studies will be required to:  - determine the acceptable modification and best management of designated freshwater habitat;  - investigate the MR policy (best technical, environmental and economic option that best manages flood risk);  - investigate the standard of protection, extent and alignment of set-back defences;  - investigate contamination issues where MR is proposed; and,  - undertake a fuller economic evaluation.	<b>H</b>  <b>M</b>  <b>M</b>  <b>M</b>  <b>M</b>	Swale Borough Council  Environment Agency  English Heritage  Natural England
E4 29	<b>Rushenden to Sheerness</b>	HTL	HTL	HTL	Undertake engineering works and maintenance activities to hold the defence line, to maintain embankments and quay walls.	<b>M</b>	Monitor frontage as part of the Strategic Regional Monitoring Programme.  Survey, record and monitor Scheduled Monuments and historic defences in Queenborough	<b>H</b>  <b>L</b>			Swale Borough Council  English Heritage  Environment Agency
E4 30	<b>Medway Islands</b>	NAI	NAI	NAI			Monitoring island shoreline retreat and erosion as part of the Strategic Regional	<b>H</b>	Studies will be required to:  - develop an exit or management plan to adapt to shoreline retreat	<b>L</b>	Medway Council  RSPB

Policy Unit		SMP Policy			Engineering and Maintenance Works and Adaptation for Short Term Policy	Priority	Specific Monitoring Requirements	Priority	Specific Study Requirements	Priority	Actions to be promoted by
							Monitoring Programme, and monitoring of the Scheduled Monuments, to pro-actively implement exit plan strategy if required.		and erosion, recording SM; - investigate contamination issues due to landfill; - determine the acceptable modification and best management of designated freshwater habitat.	L L	Environment Agency English Heritage Natural England

### 6.3 Application of the SMP in Spatial Planning

The risk management policies set out in the SMP cannot be implemented through engineering or coastal defence management alone. There is a need for spatial planning to adopt the policies and understand their consequences, such that risk areas are avoided by development, and future changes in policy are facilitated.

Strategic Flood Risk Assessments (SFRAs) are intended to guide development decisions and meet the requirements of the Planning Policy Guidance Note PPG25 Development and Flood Risk. SFRAs have been completed for both the Medway and Swale Estuaries.

Table 6.4 sets out actions which aim to ensure that the SMP policies are appropriately reflected in the relevant Regional Plan and Local Development Frameworks, such that long term coastal erosion and flooding risks are a material consideration in the planning process.

**Table 6.4 Actions for spatial planning**

Action	Responsibility
1) Communicate the completion of the SMP to the South East England Regional Assembly (SEERA) to ensure appropriate reflection in the Regional Plan.	South East Coastal Group (Chair/Secretary)
2) Communicate the completion of the SMP to South East England Development Agency (SEEDA) to ensure appropriate reflection in the Regional Economic Strategy (RES).	South East Coastal Group (Chair/Secretary)
3) Inform Local Authority Planning Officers of final SMP recommendations and implications.	Local Authority Engineering Officers Kent County Council – Kent Planning Officers Group (KPOG)
4) Submit SMP to Local Authority Planning Committees with recommendation to approve the SMP for consideration in preparation of planning documents and for development control purposes.	Local Authority Planning Officers to report to planning committee
5) Inclusion of the SMP as reference material for, or an annex to, the Local Development Framework.	Local Authority Planning Officers & Planning Committees
6) Promote the use of Strategic Flood Risk Assessment as part of the preparation of development framework documents.	Local Authority and Environment Agency Planning Officers
7) Ensure that SMP policies are integrated into Development Control activities to control development and flood risk. Development Control Teams should pay particular attention to managed realignment and no active intervention policies and any associated drainage issues.	Local Authorities & Environment Agency
8) Promote the development of planning policies to address potential housing stock losses through implementation of 'realignment' and 'no active intervention' policies.	Local Authority and Environment Agency Planning Officers
9) Promote the consideration of the relocation of land uses that are at risk from erosion or flooding, within the preparation of LDF documents. Identify elements	Local Authority and Environment agency planning officers

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<b>Action</b>	<b>Responsibility</b>
of the preferred option policies where this may apply.	

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#### 6.4 Further Actions to Facilitate Medium/Long Term Policies

In addition to the specific actions outlined in the proceeding sections, there is also a need for some activities to be progressed, which require consideration at a scale beyond that of the SMP, and therefore are largely beyond the control of the Coastal Group (or its constituent organizations). However, it is important that the need for these studies is promoted with the relevant bodies.

These studies/initiatives and the actions for the Coastal Group are outlined in Table 6.5.

**Table 6.5 Further Actions to facilitate medium / long term policies.**

Action	Responsibility
1) Formal adoption of the SMP by the lead authority, the Regional Flood Defence Committee, Natural England and other partner authorities.	South East Coastal Group, Elected Members and Local Authority Officers.
2) Promote the investigation, and implementation, of mechanisms to facilitate the removal of 'at risk' assets (properties, infrastructure, etc), to enable the implementation of long term realignment/NAI policies. This will require a review of national policy/legislation.	South East Coastal Group to promote with Defra, through ongoing 'Making Space for Water' initiatives.
3) Promote a formal, policy, link between SMPs and Local Development Frameworks/Regional Plans. This will require Defra and ODPM to review current arrangements.	South East Coastal Group to promote with Defra through Coastal Group Chairs forum.
4) Promote Central Government funding for all consultation/stakeholder activities in the development of SMPs, and strategies/schemes.	South East Coastal Group to promote with Defra through Coastal Group Chairs forum.
5) Take account of overall Plan, i.e. other immediate-term needs and long-term planning, when considering nature conservation commitments.	Natural England and other regulatory/stakeholder organizations.
6) Develop exit strategies/management plans for the relocation of people and removal of assets when they become at risk from erosion.	Local Authority Technical Officers and Planning officers.
7) Develop medium to long-term plans for relocation of services and facilities that will be lost to erosion, e.g. outfalls, highways.	Service and utility providers, highways agencies.
8) Lobby Central Government in defining a clearer position on compensation issues.	Local Authorities, South East Coastal Group and Local Government Association coastal Special Interest Groups.
9) Develop and promote a communication strategy / awareness raising / education of the public with regards to potential future coastal issues and SMP recommendations.	South East Coastal Group to promote in conjunction with Kent County Council and Environment Agency.

### **6.5 Management of SMP until Next Review**

Through the implementation of actions outlined in sections 6.2 to 6.4 it is likely that the technical understanding of this coastline, the basis of some SMP policies, and the wider shoreline management framework may change. As such, it is important that progress against these actions is monitored by the Coastal Group so that any developments which might affect policy, and hence works, are notified, and also so that the need for revision of the SMP can be monitored. Adjacent projects, including the Thames Estuary 2100 study, the Thames Gateway Project, the Isle of Grain to South Foreland SMP2, the North Kent Rivers CFMP and the Greater Thames Estuary CHAMP, should be monitored for cross project changes.

The Action Plan will be managed by the South-East Coastal Group. The Action Plan should be a working document which needs to be regularly reviewed at Coastal Group meetings and updated as and when required.

Tables 6.1 to 6.4 effectively provide a checklist against which progress can be monitored. It will be the responsibility of the Coastal Group to promote and monitor progress, with the Action Plan retained on the agenda for all future Coastal Group meetings.

The Medway Estuary and Swale SMP page of the Group website (<http://www.se-coastalgroup.org.uk/>) will have an 'Updates' page, on which this Action Plan will be placed and progress against the actions reported. This will include identification of the implications of any study outputs or wider developments for the relevant SMP policies. The 'updates' are important as the means of disseminating progress to stakeholders and, as such, the existence of this page will be reported during the final SMP dissemination process. The responsibility for maintaining the 'Updates' page will remain with the Coastal Group.

It is not possible at this time to set a date for the next review of the SMP. It is considered likely that a 5 to 10 year period may be appropriate. However, it is vital that changes in understanding or the shoreline management framework are monitored to establish if there comes a point (within the next 5 to 10 years) that the SMP policies become sufficiently out of date as to warrant a full review of the plan. This will be a judgment made by the Coastal Group, as it is not possible to prescribe exactly at what point this should be.

Regardless of other developments, it is considered that the review should be undertaken in 10 years (if not before) in order to ensure the policies remain appropriate.