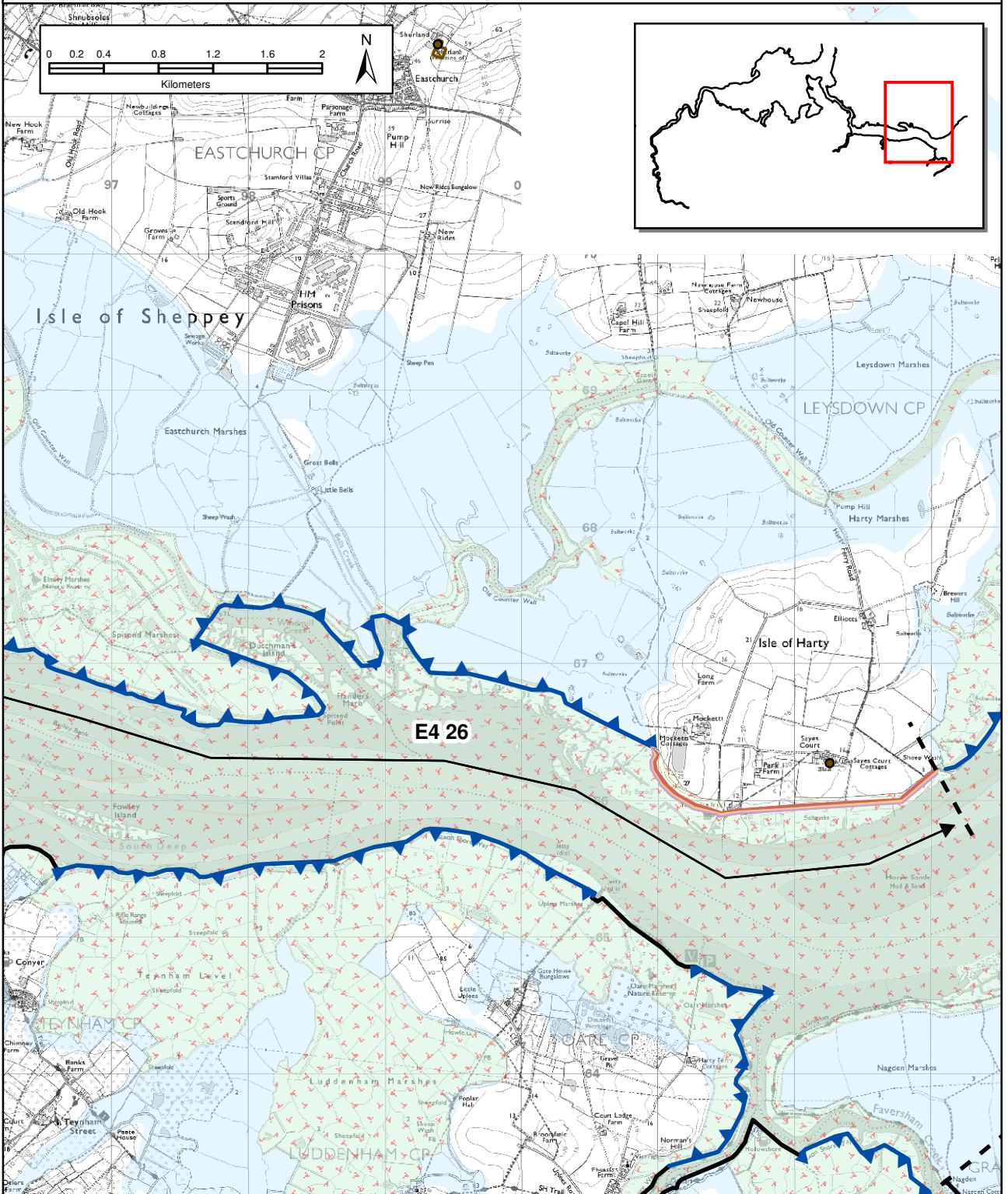


Medway Estuary and Swale Shoreline Management Plan

Policy Unit E4 26: Sayes Court to north Elmley Island (Part 1 of 2)



Policy

From Present Day:	Medium-Term:	Long-Term:
Managed Realignment	Managed Realignment	Managed Realignment

- Indicative erosion zone up to 2025
- Indicative erosion zone up to 2055
- Indicative erosion zone up to 2105

- Indicative realignment location*
- * Actual realignment extent and location will be the subject of further studies.

- Policy Unit Boundary
- Policy Unit Extent
- Current shoreline
- Hold the Line

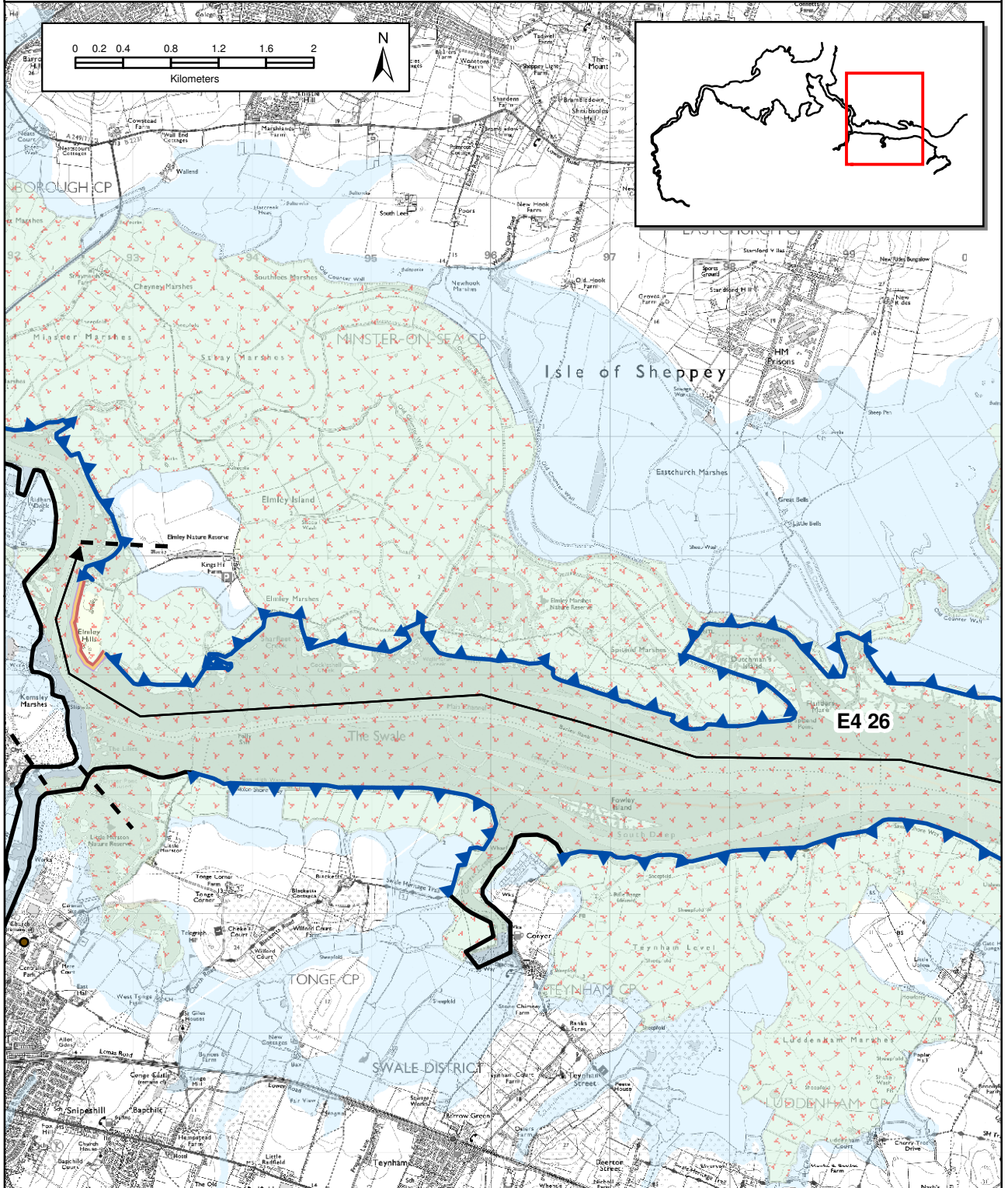
Environmental/Cultural Heritage

- National Nature Conservation Designation
- International Nature Conservation Designation
- Important Heritage Sites (Scheduled Monuments)
- 2005 Indicative floodplain © Environment Agency

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Medway Estuary and Swale Shoreline Management Plan


Policy Unit E4 26: Sayes Court to north Elmley Island (Part 2 of 2)






Policy





From Present Day:	Medium-Term:	Long-Term:
Managed Realignment	Managed Realignment	Managed Realignment

-  Indicative erosion zone up to 2025
-  Indicative erosion zone up to 2055
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Environmental/Cultural Heritage

-  National Nature Conservation Designation
-  Important Heritage Sites (Scheduled Monuments)
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-  2005 Indicative floodplain © Environment Agency

-  Policy Unit Boundary
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Location reference: Sayes Court to North Elmley Island

Policy Unit reference: E4 26

SUMMARY OF THE PLAN AND JUSTIFICATION

Plan:

The Sayes Court to North Elmley Island frontage extends along the south of the Isle of Sheppey and forms part of the northern bank of the Swale. The frontage comprises a large expanse of floodplain which rises to high land in the north. A small number of properties and farms are located on the floodplain and on higher land. The low-lying hinterland is interspersed with secondary embankments, a legacy of past land reclamation. These areas consist mainly of agricultural land and coastal grazing marshes, which like the intertidal mudflat and saltmarsh along the frontage, are internationally designated. The area is locally important for attracting visitors to the National Nature Reserve and the RSPB Reserve located along the western edge of the frontage. Sayes Court SM, located on higher land on the Isle of Harty, is of significant heritage importance whilst the whole frontage is of important landscape value.

The recommended long-term plan is to allow the coastline to realign to a more naturally functioning system, whilst continuing to provide flood defence to the large floodplain and isolated properties. It is recognised that this section of shoreline provides an opportunity for environmental enhancement and habitat creation through a managed realignment policy.

No specific realignment positions have been identified for the SMP.. The potential impact on internationally designated sites will be a limiting factor on realignment extents and therefore, further studies will be required to investigate and define the extent, location and implementation of the realignment i.e. the best technical, environmental and economic option that best manages flood risk. These studies will also need to investigate the exact standard and alignment of any defences for this frontage and any mitigation measures required for loss of designated habitat.

The aim of these policies is to work towards achieving a more naturally functioning estuary and the creation of important brackish and saline habitats whilst at the same time creating a shoreline with a reduced requirement for defence maintenance. This policy is considered to be sustainable in the long-term, on the basis that environmental, engineering and inter-tidal benefits will be realised and that the overall flood defence is maintained to limit flood propagation.

The effect of these policies on designated conservation sites has been assessed in partnership with Natural England.

Preferred policies to implement Plan:

From present day: The present day policy is **managed realignment** of Sayes Court to Elmley Island. There is a need to control the realignment of the shoreline to best manage estuarine geomorphology and the integrity of European wildlife sites. The detailed alignment, will be subject to further study to address uncertainties and confirm the best technical, environmental and economic option to manage the estuary. This will be implemented by constructing realigned secondary

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Location reference: Sayes Court to North Elmley Island

Policy Unit reference: E4 26

defences at a set-back position and deliberately removing all or part of the existing defences or allowing them to fail. This will require re-routing of shoreline footpaths in localised areas.

No specific realignment positions have been identified for the SMP. Large scale realignment is likely to result in significant increases in flow speeds and erosion in confined channel locations. However, intertidal areas are predicted to remain more stable with smaller scale realignment as sediment supply is expected to meet demand throughout this epoch in the Swale estuary. The viability of managed realignment, the exact nature of shoreline response and the managed realignment works to be implemented will need to be investigated in further more detailed studies.

A set back will involve the loss of some agricultural land as well as designated freshwater habitat. The extent of these losses will be dependant on realignment extents. Loss of designated freshwater habitats will need to be managed in line with the Habitats Regulations Assessment (Appendix J) and the Regional Habitat Creation Programme. The coastline will remain naturally fixed in position to the east (high land at the Isle of Harty) and to the west (high land at Elmley Island). As the coastline realigns, intertidal habitat will develop in the realigned areas.

Medium-term:

The medium term policy is to continue allowing the shoreline to realign, albeit in a controlled manner, under a policy of **managed realignment**. Defences will require further maintenance throughout this period as sea levels rise. Environmental transitions will be prominent during this epoch as brackish and intertidal habitats replace some of the freshwater interests. This may require specific management to maximise the environmental benefits and limit potential habitat impacts.

Intertidal areas are expected to remain stable even with sea level rise, as realigned areas will allow for the translation of intertidal habitats landward and a continued sediment supply within the Swale will enable vertical accretion of these habitats.

Long-term:

The long-term policy is a continuation of **managed realignment**, to enable more flexible and sustainable flood and erosion risk management within the estuary. All defences will require periodic maintenance and potential upgrading with sea level rise. It is expected that created habitat will become well-established during this epoch and afford additional protection to low lying

Location reference: **Sayes Court to North Elmley Island**

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hinterland areas.

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Location reference: *Sayes Court to North Elmley Island*

Policy Unit reference: *E4 26*

IMPLICATIONS OF THE PLAN FOR THIS LOCATION

Time Period	Management Activities	Material Assets, Infrastructure & Land Use	Landscape	Natural Environment	Historic Environment	Population (Amenity & Recreational Use and Human Health)
0-20 years	Construct secondary defences.	<p>Secondary defences will provide an appropriate level of protection to built assets and some areas of agricultural land.</p> <p>Areas of land affected by managed realignment will become intertidal.</p>	Estuary landscape will be maintained, however some features will change through realignment.	<p>Effect on internationally designated freshwater habitat and nationally important (BAP) habitat.</p> <p>Compensatory habitat will need to be secured before any designated habitat is lost.</p> <p>Transition of habitat from freshwater to internationally and nationally important brackish and saline habitat in realigned areas.</p> <p>There is potential for impacts of groundwater extraction on groundwater levels in this policy unit – uncertainty regarding impacts at this stage.</p> <p>Effect on sections of National Nature Reserve</p>	<p>No loss of Sayes Court SM.</p> <p>Potential loss of buried unknown heritage.</p>	<p>No loss of residential properties.</p> <p>Re-routing of footpaths where MR is implemented.</p>

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Location reference: *Sayes Court to North Elmley Island*

Policy Unit reference: *E4 26*

IMPLICATIONS OF THE PLAN FOR THIS LOCATION

Time Period	Management Activities	Material Assets, Infrastructure & Land Use	Landscape	Natural Environment	Historic Environment	Population (Amenity & Recreational Use and Human Health)
				and RSPB Reserve.		
20-50 years	Undertake engineering works to maintain the realigned defence line.	Secondary defences will provide an appropriate level of protection to built assets and some areas of agricultural land. Areas of land affected by managed realignment will become intertidal.	Estuary landscape maintained, potential for a more 'natural' shoreline.	Establishment of brackish and saline habitats in realigned areas. There is potential for impacts of groundwater extraction on groundwater levels in this policy unit – uncertainty regarding impacts at this stage. Effect on sections of National Nature Reserve and RSPB Reserve.	No loss of Sayes Court SM. Potential loss of buried unknown heritage.	No loss of residential properties.
50-100 years	Undertake engineering works to maintain the realigned defence line.	Secondary defences will provide an appropriate level of protection to built assets and some areas of agricultural land. Areas of land affected by managed realignment will become intertidal.	Estuary landscape maintained, potential for a more 'natural' shoreline.	Establishment of brackish and saline habitats in realigned areas. There is potential for impacts of groundwater extraction on groundwater levels in this policy unit – uncertainty regarding impacts at this stage.	No loss of Sayes Court SM. Potential loss of buried unknown heritage.	No loss of residential properties.

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Location reference: *Sayes Court to North Elmley Island*
Policy Unit reference: *E4 26*

IMPLICATIONS OF THE PLAN FOR THIS LOCATION

Time Period	Management Activities	Material Assets, Infrastructure & Land Use	Landscape	Natural Environment	Historic Environment	Population (Amenity & Recreational Use and Human Health)
				Effect on sections of National Nature Reserve and RSPB Reserve.		

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