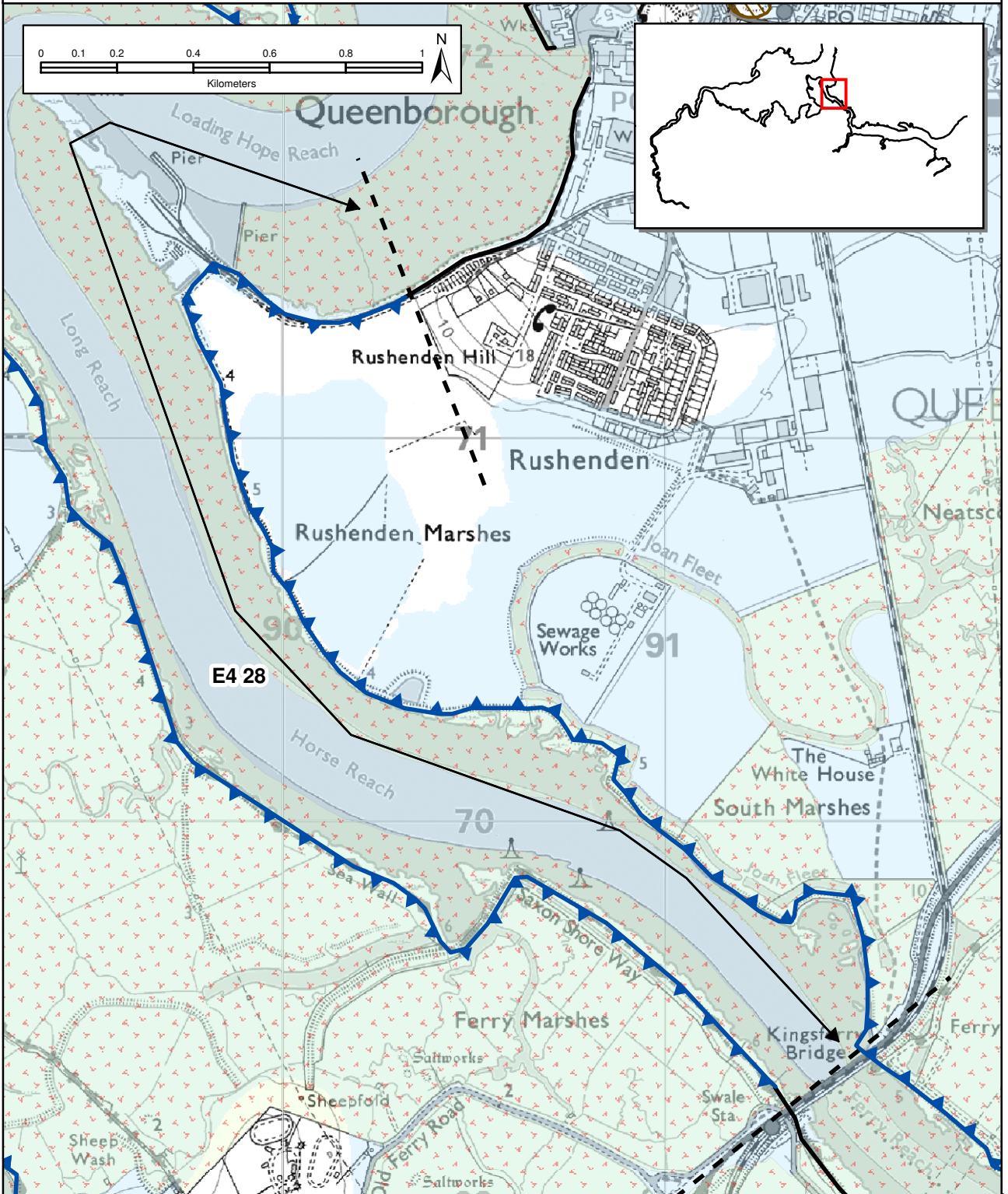


Medway Estuary and Swale Shoreline Management Plan

Policy Unit E4 28: Kingsferry Bridge to Rushenden



Policy

From Present Day:	Medium-Term:	Long-Term:
Hold the Line	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.

Environmental/Cultural Heritage

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

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

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Location reference: Kingsferry Bridge to Rushenden

Policy Unit reference: E4 28

SUMMARY OF THE PLAN AND JUSTIFICATION

Plan:

A low lying area immediately north of Kingsferry Bridge which leads to Rushenden Dredging Disposal Site, an area of higher land along the north of the frontage. Sections of the low lying hinterland and intertidal habitats close to the shoreline along the whole of the frontage are internationally designated for their ecological importance.

In the short to medium term the plan is to continue protecting the low lying assets, which include properties, infrastructure, agricultural land and freshwater habitats. This will allow further studies to take place regarding managed realignment along the frontage and potential contamination of the disposal site. The recommended long-term plan is to allow the shoreline to realign to a more naturally functioning system, whilst continuing to provide flood defence to the low-lying floodplain, infrastructure and built assets. It is recognised that this section of shoreline provides an opportunity for environmental enhancement and habitat creation through managed realignment.

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. The policies are considered to be sustainable in the long-term, on the basis that 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 for Kingsferry Bridge to Rushenden is **hold the line** by maintaining existing defences to provide protection to the floodplain, properties, infrastructure, agricultural land and freshwater habitats.

Maintaining the existing defence line in short term will allow further studies to be conducted at strategy level, regarding the viability of managed realignment with regards to implications regarding essential infrastructure (railway, road, sewage) and potential contamination of land at the disposal site.

The above provides the local details in respect of the SMP-wide Plan; therefore the above must be read in the context of the wider-scale issues and policy implications, as presented in the preceding sections and Appendices to this Plan document.

Location reference: Kingsferry Bridge to Rushenden

Policy Unit reference: E4 28

Due to the confined nature of the channel in this location, erosion of intertidal areas will continue and as such will naturally dredge the channel.

Medium-term:

The medium term policy changes to **managed realignment**. There is a need to control the realignment of this 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. The policy will be implemented by constructing new structures at a set-back position to continue to provide protection to assets and infrastructure, 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 position has been identified for the SMP. The viability of this policy, exact nature of shoreline response and the managed realignment works to be implemented will be the subject of further studies.

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.

With climate change, sea levels will rise and flows will increase, resulting in an enhanced potential for erosion in confined areas, e.g. potential erosion of the high land at the disposal site. The enlarged intertidal area, created as habitats translate landwards in sections where defences are set-back, will however afford added protection to the hinterland.

Long-term:

The long-term policy is to continue allowing the shoreline to realign, under a policy of **managed realignment**, to enable more flexible and sustainable flood and erosion risk management within the estuary. Defences will require further maintenance throughout this period as sea levels rise. However, the realigned intertidal area will continue to afford added protection to the hinterland. It is expected that created habitat will become well-established during this epoch.

Location reference: *Kingsferry Bridge to Rushenden*

Policy Unit reference: *E4 28*

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	Undertake engineering works to hold the defence line.	Defences will continue to provide the appropriate standard of protection to built assets, infrastructure and agricultural land during this period.	Designated landscape of the industrial area maintained.	No loss of designated habitats. Compensatory habitat will need to be secured before any designated habitat is lost in epoch 2.	Potential loss of buried unknown heritage.	No loss of recreation features, residential properties or commercial facilities.
20-50 years	Construct secondary defences. Managed realignment of disposal site.	Defences will continue to provide the appropriate standard of protection to built assets, infrastructure and some agricultural land. Areas of land affected by managed realignment will become intertidal. MR may impact on future commercial traffic in the Swale estuary.	Estuary landscape will be maintained, however some features will change through realignment.	Some effect on internationally designated freshwater habitat and nationally important (BAP) habitat. Creation of internationally and nationally important habitat in realigned areas. Potential effect on internationally designated intertidal habitat and nationally important (BAP) habitat with coastal squeeze in confined channel locations, as sea levels rise. Potential for contamination issues associated with managed realignment at Rushenden disposal site.	Potential loss of buried unknown heritage.	Re-routing of footpaths – where MR is implemented.

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Location reference: *Kingsferry Bridge to Rushenden*
Policy Unit reference: *E4 28*

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)
50-100 years	Undertake engineering works to maintain the realigned defence line.	Defences will continue to provide the appropriate standard of protection to built assets, infrastructure and some agricultural land. Areas of land affected by managed realignment will become intertidal. MR may impact on future commercial traffic in the Swale estuary.	Estuary landscape will be maintained, however some features will change through realignment.	Establishment of brackish and saline habitats in realigned areas. Potential for effect on edges of internationally designated saltmarsh and nationally important (BAP) habitat in confined areas.	Potential loss of buried unknown heritage.	No loss of recreation features.

The above provides the local details in respect of the SMP-wide Plan; therefore the above must be read in the context of the wider-scale issues and policy implications, as presented in the preceding sections and Appendices to this Plan document.