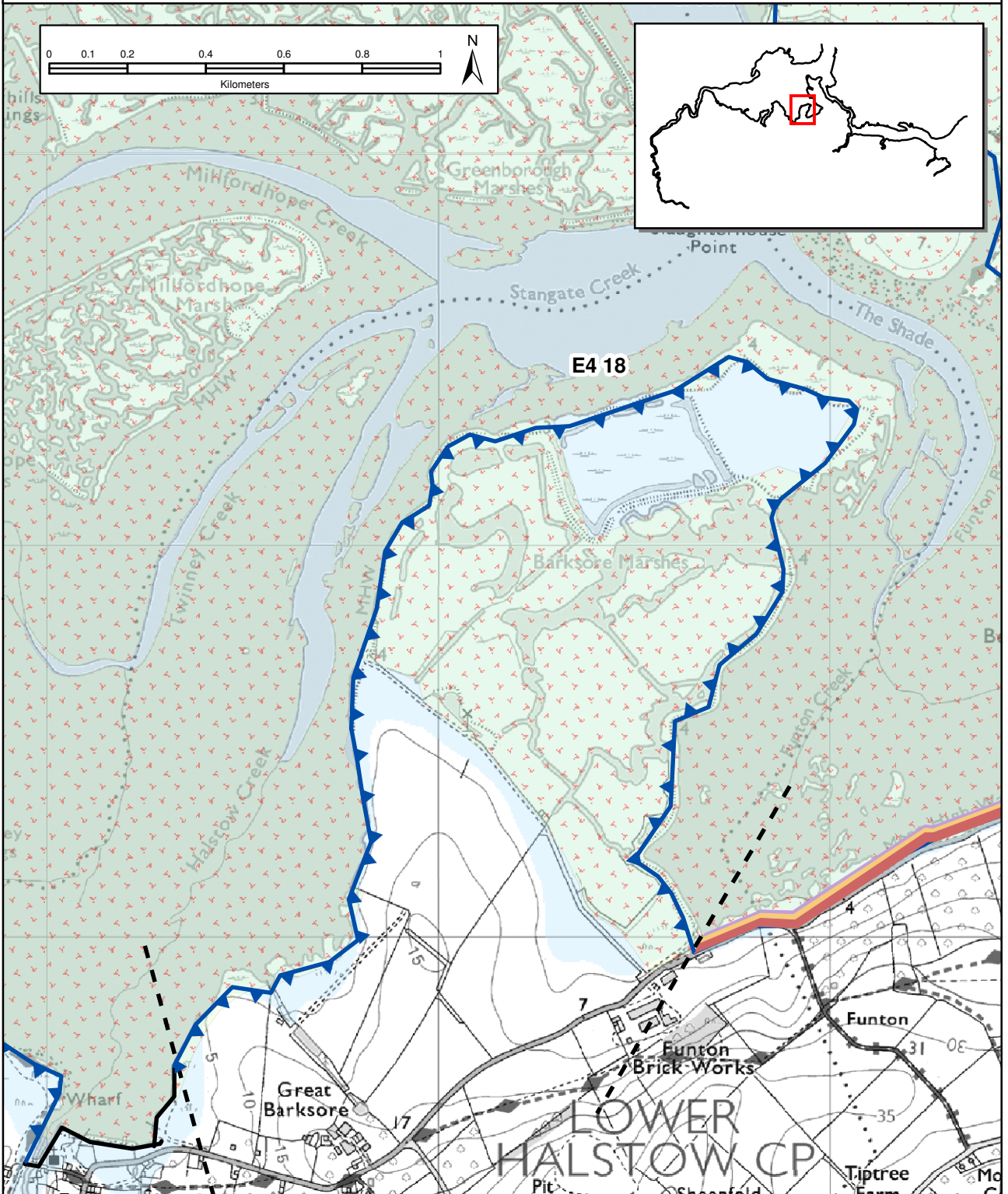





Medway Estuary and Swale Shoreline Management Plan


Policy Unit E4 18: Barksore Marshes







Policy

| From Present Day: | Medium-Term: | Long-Term: |
|---------------------|------------------------|------------------------|
| Managed Realignment | No Active Intervention | No Active Intervention |

-  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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Location reference: Barksore Marshes

Policy Unit reference: E4 18

SUMMARY OF THE PLAN AND JUSTIFICATION

Plan:

Barksore Marshes is a peninsular of agricultural land and freshwater grazing marshes with no built assets. The marshes, apart from the northern tip, along with intertidal habitats skirting the shoreline, are nationally and internationally designated for their ecological value. The majority of the frontage is low-lying with the exception of an area of higher land located to the south where the peninsular connects with the mainland. The whole area is important for its landscape value.

In the short to medium term the plan is to realign defences to ensure that freshwater habitat landward of defences is appropriately managed before a no active intervention policy is implemented in the medium term. This will allow further study to take place regarding no active intervention along the frontage. The recommended long-term plan is to allow the shoreline to realign to a more naturally functioning system. It is recognised that this section of shoreline provides an opportunity for environmental enhancement and habitat creation through a policy of managed realignment followed by no active intervention. As the flood plain rises to higher land naturally and there are no built assets on the floodplain, it is considered unsustainable and uneconomic to continue to protect the entire area of marshes in the long term.

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

Preferred policies to implement Plan:

From present day: If the socio-economic, environmental and technical benefits are confirmed by further studies, then it will be appropriate to implement **managed realignment** in the short term. New realigned secondary defences would be constructed where necessary, at a set-back position and the existing defences allowed to fail or deliberately removed in all or part. A number of factors make this appropriate:

Location reference: **Barksore Marshes**

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- the presence of raised topography behind the flood plain;
- the likely increasing cost of maintaining the existing alignment; and
- the need to appropriately manage the freshwater habitats whilst maintaining landscape value.

Shoreline footpaths will require re-routing in localised areas.

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.

Intertidal areas are predicted to remain stable along the majority of frontage, as sediment supply is expected to meet demand within the estuary throughout this epoch. However, saltmarsh habitats at the tip of Barksore Marshes are expected to continue to erode on the seaward edge due to the confined nature of the channel at this location.

Medium-term:

In the medium term, if the socio-economic, environmental and technical benefits are confirmed by further studies, then it will be appropriate to implement a change of policy to **no active intervention** to allow natural processes, i.e. no maintenance of realigned defences. This will maintain the environmental and landscape value of intertidal habitats and result in a free functioning shoreline.

Evolution of intertidal areas will continue as per the previous epoch, remaining stable as sediment supply is expected to be able to meet demand throughout this epoch. However, erosion may become more prevalent along the seaward edge of the marshes and at the northern tip. This erosion will be driven by rising sea levels which will cause intertidal habitats to be squeezed against the realigned defences or higher ground.

Long-term:

The long-term policy is to continue to allow a free functioning shoreline under a policy of **no active intervention**. It is expected that created habitat in previously realigned areas will become well-established during this epoch.

Erosion of intertidal habitats may continue to become more prevalent in confined channel locations and around the edge of the marsh as sea levels rise and sediment supply to the estuary decreases.

| | |
|-------------------------------|--------------------------------|
| Location reference: | <i>Barksore Marshes</i> |
| Policy Unit reference: | <i>E4 18</i> |

IMPLICATIONS OF THE PLAN FOR THIS LOCATION

| Time Period | Management Activities | Material Assets, Infrastructure & Land Use | Landscape | Nature Conservation | Historic Environment | Population (Amenity & Recreational Use and Human Health) |
|--------------------|---|--|---|---|--|--|
| 0-20 years | Construct secondary defences. | Defences will continue to provide the appropriate standard of protection to infrastructure. Areas of land affected by managed realignment will become intertidal. | Designated estuary landscape will be maintained. However, visually some features will change through realignment. | No net loss of internationally designated intertidal habitat and nationally important (BAP) habitat. Creation of internationally and nationally important habitat in realigned area. Effect on internationally designated coastal grazing marsh and nationally important (BAP) habitat. Compensatory habitat will need to be secured before any designated habitat is lost. Potential for contamination of water resources | Potential loss of buried unknown heritage. | No loss of residential properties. Re-routing of pathways will be required. |
| 20-50 years | Allow natural processes, i.e. inundation and erosion and natural erosion of defences. | Remaining secondary defences will continue to provide protection to infrastructure. Areas of land affected by managed realignment will become intertidal. | Designated landscape maintained. Visually more 'natural' shoreline. | No net loss of internationally designated intertidal habitat and nationally important (BAP) habitat. Establishment of brackish / saline habitat in realigned area. Effect on internationally designated coastal grazing marsh and nationally important (BAP) habitat with further inundation. | Potential loss of buried unknown heritage. | No loss of residential properties. Re-routing of pathways will be required. |

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: *Barksore Marshes*
Policy Unit reference: *E4 18*

IMPLICATIONS OF THE PLAN FOR THIS LOCATION

| Time Period | Management Activities | Material Assets, Infrastructure & Land Use | Landscape | Nature Conservation | Historic Environment | Population (Amenity & Recreational Use and Human Health) |
|---------------------|---|--|---|--|--|--|
| | | | | Potential for contamination of water resources | | |
| 50-100 years | Allow natural processes, i.e. inundation and erosion. | Standard of protection of infrastructure will reduce throughout this epoch. Areas of land affected by managed realignment will become intertidal. | Designated landscape maintained. Visually more 'natural' shoreline. | Effect on internationally designated intertidal habitat and nationally important (BAP) habitat with coastal squeeze as sediment supply declines. Establishment of brackish / saline habitat in realigned area. Affect on internationally designated coastal grazing marsh and nationally important (BAP) habitat with further inundation. Potential for contamination of water resources | Potential loss of buried unknown heritage. | No loss of residential properties. Re-routing of pathways will be required. |

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.