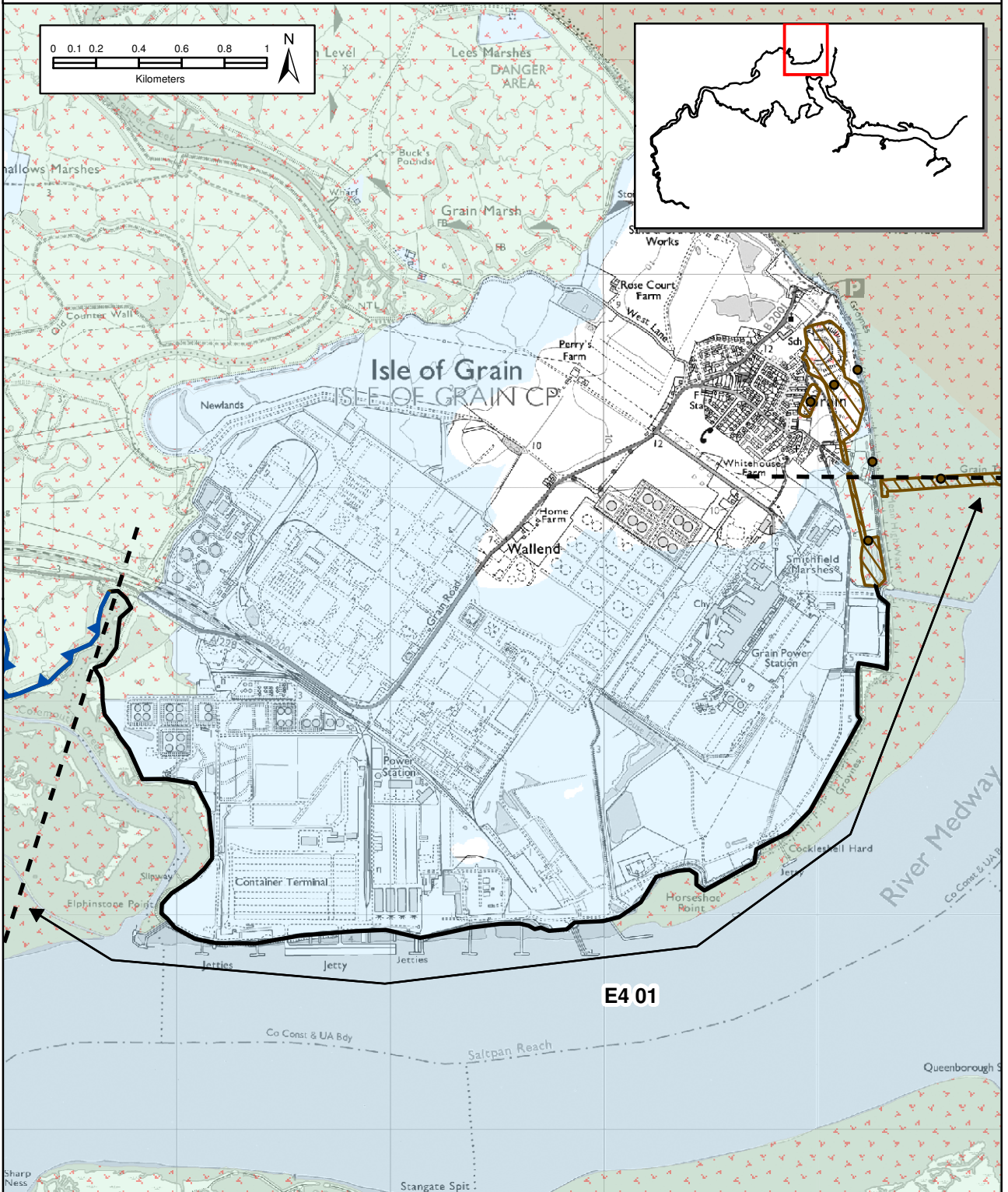


Medway Estuary and Swale Shoreline Management Plan

Policy Unit E4 01: Grain Tower to Colemouth Creek



Policy

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

- 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 (0-100 yrs)

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:	Grain Tower to Colemouth Creek
Policy Unit reference:	E4 01

SUMMARY OF THE PLAN AND JUSTIFICATION

Plan:

The Grain Tower to Colemouth Creek frontage is located on the eastern extremity of the Isle of Grain and marks the interface between the Medway Estuary and the open coast (Policy Unit 4a 01: All Hallows-on-Sea to Grain – Isle of Grain to South Foreland, SMP2. The preferred policies for this adjacent open coast unit are Hold the Line in the short term, followed by Managed Realignment in the medium and long terms). A small narrow shingle beach is located to the north of Grain Tower, fronted by wide tidal mudflats; elsewhere intertidal habitat to the east and south of the frontage is internationally designated. Grain village is located on an area of higher land to the north whilst the majority of the shoreline is dominated by nationally important industry (e.g. Grain Power Station and Thamesport Container Terminal). The former oil refinery site also located on this frontage is a proposed Thames Gateway economic regeneration site.

The plan in the long term is to protect these major commercial and industrial assets and associated infrastructure and avoid any potential contamination risks. Were the commercial and industrial assets to cease operation and the Power Station to be decommissioned then the policy for this unit should be revisited, as managed realignment to widen the Medway estuary mouth would benefit future estuary management. From the best available information, the importance of the assets in this area will continue in place for the life of the plan and a Hold the Line Policy is preferred for all epochs.

Under this policy some localised coastal squeeze impacts will be experienced in later epochs. However, these are countered by habitat growth within the middle reaches of the estuary and the recommended policy is deemed technically and environmentally viable, for the duration of the Shoreline Management Plan.

Preferred policies to implement Plan:

From present day: The present day policy for North Grain to Colemouth Creek is to **hold the line**. This will be achieved by continuing to maintain the revetments and seawalls around the commercial and industrial assets.

The evolution of intertidal areas will be dependent on sediment supply. Sediment availability in the Medway is expected to keep pace with need during this epoch. Therefore mudflats to the south of the frontage are predicted to remain stable whilst intertidal habitats in the more confined channel locations to the east will continue to be subject to erosion.

Medium-term: The medium term policy is to **hold the line**. In response to sea level rise it is anticipated that the defences will require additional maintenance and potentially upgrading as they become more vulnerable to wave attack and rising water

Location reference: Grain Tower to Colemouth Creek

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levels.

Intertidal areas are predicted to continue to evolve as per the previous epoch.

Long-term:

The long term policy is to **hold the line** and protect the commercial, industrial and infrastructure assets along the frontage. This will be achieved by maintaining and upgrading defences throughout this epoch.

Tidal mudflats fronting defences along this frontage will become subject to increased erosion throughout this epoch as water levels rise, water flows increase, and sediment supply decreases.

Location reference: *Grain Tower to Colemouth Creek*

Policy Unit reference: *E4 01*

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 material assets, infrastructure and agricultural land during this period.	Designated landscape of the industrial area maintained.	<p>Effect on internationally designated intertidal habitat and nationally important (BAP) habitat due to coastal squeeze in confined channel locations.</p> <p>No loss of internationally designated coastal grazing marsh.</p> <p>Potential coastal squeeze/ accelerated erosion in constrained reach of Medway Estuary, with associated failure of WFD objective 2, “no changes that will cause failure to meet surface water “good” ecological status or potential (where potential relates to HMWB or AWB) or result in a deterioration of surface water ecological status/potentials”</p>	<p>Coastal artillery Defences SM will remain protected.</p> <p>Potential loss of unknown heritage buried in intertidal zone.</p>	<p>Defences will continue to provide the appropriate standard of protection to built assets during this period.</p> <p>Footpaths will remain.</p>
20-50	Undertake engineering	Defences will continue to	Designated landscape of	Effect on internationally	Coastal artillery Defences	Defences will continue to

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: Grain Tower to Colemouth Creek

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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)
years	works to hold the defence line.	provide the appropriate standard of protection to material assets, infrastructure and agricultural land during this period.	the industrial area maintained but with increased defences. Larger defences may affect landscape character.	designated intertidal habitat and nationally important (BAP) habitat due to coastal squeeze in confined channel locations. No loss of internationally designated coastal grazing marsh. Potential coastal squeeze/ accelerated erosion in constrained reach of Medway Estuary, with associated failure of WFD objective 2, "no changes that will cause failure to meet surface water "good" ecological status or potential (where potential relates to HMWB or AWB) or result in a deterioration of surface water ecological status/potentials"	SM will remain protected. Potential loss of unknown heritage buried in intertidal zone.	provide the appropriate standard of protection to built assets during this period. Footpaths will remain.
50-100 years	Undertake engineering works to hold the defence	Defences will continue to provide the appropriate	Designated landscape of the industrial area	Effect on internationally designated intertidal habitat	Coastal artillery Defences SM will remain protected.	Defences will continue to provide the appropriate

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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)
	line.	standard of protection to material assets, infrastructure and agricultural land during this period.	maintained but with increased defences. Larger defences may affect landscape character.	<p>and nationally important (BAP) habitat due to coastal squeeze in confined channel locations.</p> <p>No loss of internationally designated coastal grazing marsh.</p> <p>Potential coastal squeeze/ accelerated erosion in constrained reach of Medway Estuary, with associated failure of WFD objective 2, “no changes that will cause failure to meet surface water “good” ecological status or potential (where potential relates to HMWB or AWB) or result in a deterioration of surface water ecological status/potentials”</p>	Potential loss of unknown heritage buried in intertidal zone.	<p>standard of protection to built assets during this period.</p> <p>Footpaths will remain.</p>

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.