



Medway Estuary and Swale Strategy

A Summary of Consultation Responses

Report – MMD-347800-S-RE-005-D

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1. Introduction

There are currently coastal flooding and erosion risks to the communities and landowners around the Medway Estuary and Swale. Aging flood defences, rising sea levels and climate change mean that coastal flood and erosion risk to people, properties, habitats and agricultural land will significantly increase in the coming years. Over the next 100 years it is predicted that 17,226 properties will be at an increased risk of tidal flooding (up to a 0.1% Annual Exceedance Probability (AEP) event, which is the probability of a flood event occurring in any year) within the Medway Estuary and Swale Strategy (MEASS) area.

To inform the development of MEASS, a Strategic Environmental Assessment (SEA) and Habitats Regulation Assessment (HRA) have been produced to ensure appropriate consideration is given to the possible environmental impacts from flood and erosion mitigation measures included in MEASS.

As per SEA and HRA regulations, we published these documents for consultation between November 2017 and February 2018. During this time, we also consulted on the draft Strategy options.

The purpose of the consultation was to find out peoples' views on the draft Strategy, SEA and HRA to help us ensure the assessment focuses on all relevant environmental, social and technical issues. This document presents a summary of the response to the consultation.

It is to be noted that although this was the main public consultation stage, we have developed the draft Strategy through a number of consultation phases. The details of all these phases will be presented in the Stakeholder Engagement Report which will form part of the Strategy Appendices.

2. How we ran the consultation

The consultation ran for 3 months from 6 November 2017 to 5 February 2018.

During this period, we held 3 drop-in sessions to allow the public to ask us about the draft Strategy. We advertised these exhibitions using a variety of media including:

- publications in magazines and newspapers
- social media
- posters, which were displayed at key community sites
- press releases.

The locations for the exhibitions were:

- Eastchurch Village Hall, Isle of Sheppey – 30 November 2017 (2 – 7pm)
- Riverside Country Park, Gillingham – 6 December 2017 (2 – 7pm)
- Halling Community Centre – 12 December 2017 (2.30 – 7.30pm)

We had representatives from Environment Agency and consultants Mott MacDonald available throughout the exhibitions to answer any questions and concerns. The exhibition included posters on the development of the draft Strategy and handouts of the public consultation document, split into each Benefit Area (BA) so the public could take information on the BAs they were most interested in.

Questionnaires were available online and during the public drop-in events to gather feedback from stakeholders. The questionnaire considered each BA in turn. Feedback on the SEA and HRA was also received from a number of stakeholders through emails and letters. We asked whether consultees supported our proposals and options for MEASS. We also asked people to provide any additional information or specialist knowledge that could inform the assessment process and be used to further develop MEASS.

3. Summary of key findings and actions we will take

We received responses from a variety of stakeholders. Table 1 shows the number of responses received by different stakeholders to the questionnaire. Comments, questions and queries were received online and through the drop-in events. 48 people attended these drop-ins, however many did not complete the questionnaire.

Table 1. Summary of stakeholder responses from online and the drop in events

Type	Number of response
Governmental organisations	5
Non-Governmental organisations	9
Environmental organisations	1
Members of the Public	28

The responses we received generally agreed with our approach for the Strategy. There were concerns around some areas having an increased flood risk in the future, and a lot of useful information was captured, which highlighted local risks and concerns. These elements have been fed back into the Strategy via the Implementation Plan, which will be managed through the scheme's development.

4. Summary of key findings and actions we will take

The questionnaires contained several questions on each of the 11 Benefit Areas. Although many of the questions required a multiple-choice selection, there was also the option to provide further explanations or comments where necessary.

We have reviewed the responses and questions raised through the consultation and have picked out general themes that have emerged. Our responses to these themes are provided below. Where relevant, we have used these responses to update MEASS to highlight particular risks, next steps or update the preferred options. Where consultees have provided a comment which suggests overall agreement with the draft Strategy, we have not provided a specific response.

4.1. General comments

Some areas should include more Managed Realignment sites and less hard defences - is it suitable and sustainable to continue to protect our coastline?

In general, the Strategy aims to work with the natural coastal and estuarine processes and has assessed many options for each frontage. Our priority is to optimise working with nature, and provide wider benefits (ecological, recreation, heritage) without causing adverse impacts on properties and people. However, as many areas of the Strategy are low lying land, flooding that occurs here can spread and impact areas relatively far from the coastline. We have ensured that numerical modelling has driven where defences are required to adequately protect different assets.

Confusion between the different policies.

The following definitions are included within MEASS:

Hold the Line (HTL): current defences are maintained, or new defences are constructed, to hold the position of the shoreline.

Managed Realignment (MR): flood defences are relocated inland, so assets behind the defence line are still protected from flooding, and the area in front of the new defence line provides a flood storage area.

No Active Intervention (NAI): there is no active work to manage flood risk in that area through central government funding. Any defences currently in place will still be monitored for health and safety but no maintenance will be carried out. No new defences will be constructed for areas under a No Active Intervention policy by the Environment Agency, however individuals can work with us to apply to maintain or construct defences privately.

Concerns around risk in areas with a No Active Intervention Policy.

Under government guidance, for a scheme to be eligible for funding the cost of the defences has to be less than the value of the assets being protected. In NAI areas, the options assessed to manage the flood and erosion risk are more expensive than the assets that are being protected. Therefore, under government guidance, it is not viable to invest in management in these areas, including any ongoing maintenance. As such we would withdraw maintenance in these areas, and transfer the management of the flooding and erosion risk to the riparian landowners.

The Strategy does not recommend the full removal of any defences. However, where NAI is identified as the policy, the Strategy recommends that some of the defences might be left to degrade over time. The consequences of leaving some defences to degrade or breaching defences will vary depending on the location and the health and safety implications of this.

Although there is no government funding for defences in these areas of NAI, landowners may be able to maintain or construct new defences to protect their property, subject to achieving the relevant permits and licences including Planning Permission and a Flood Risk Activity Permit from ourselves.

However, in some areas NAI is proposed due to environmental designations. To protect these environmentally designated habitats there can be no construction of defences as the coastline needs to maintain in its natural state. These areas also had a policy of NAI in the 2010 Shoreline Management Plan.

How can the Strategy have Hold the Line with No Active Intervention policies?

Benefit Areas can have areas of both HTL and NAI. Where this is the case it means that part of the Benefit Area is a HTL policy, and another part of the Benefit Area is NAI. This is determined by the assets at risk of flooding and the benefits attributed to protecting these. The Non-Technical Summary of the Strategy provides maps which clearly identify these different areas.

Concern around impacts on Public Right of Ways including the Saxon Shore Way. Have these been considered within the Strategy development?

We have taken footpaths into consideration within the Strategy. From discussions with Natural England and the local authorities, it was identified that the footpaths could be moved if required. The movement of footpaths, if needed, will be carried out; even in areas of NAI.

If a footpath is to be moved, we will carry out the appropriate design and environmental assessments. We will carry out additional consultations and complete the relevant applications to support the changes.

What are the key impacts on the Marine Conservation Areas?

The Strategy area is within two Marine Conservation Zones (The Medway Estuary and The Swale Estuary) and this has been assessed within the Strategic Environmental Assessment (SEA) which supports the Strategy.

The Marine Conservation Zones have a number of important features which need to be carefully considered in the next stages of the Strategy, when designs of schemes are looked at in more detail. Specific elements of the Marine Conservation Zones to consider in detail include:

- estuarine rocky habitats
- tentacled lagoon worm presence around piers/quays
- saltmarsh and mudflat habitats.

How are decisions made regarding impacts on wildlife, agriculture, infrastructure and amenities?

The natural environment helps to make the Medway and Swale Estuaries special, so we need to protect both people and the habitat for wildlife.

The process to determine future management within the different areas considers:

- existing features and assets
- potential economic losses
- the wider benefits of assets
- social impacts.

We have taken the following into consideration when developing the Strategy:

- residential properties
- commercial properties and land use
- agricultural land
- impacts to transport infrastructure including rail and roads
- impacts to other infrastructure such as power/gas/water infrastructure
- areas important for tourism and recreation
- areas where improvements in biodiversity could be achieved.

The elements above have been assessed for each Benefit Area as part of the Strategy's economic assessment. We have also assessed the preferred options against potential environmental and social impacts through the SEA. Where potential impacts could be caused, mitigation and management at the next stage has been proposed, or changes to the options have been made. The SEA looks at impacts options can have to:

- water quality through the Water Framework Directive assessment
- designated habitat
- historic environment
- communities, amenities and livelihoods
- Local Development Plans
- freshwater biodiversity
- saline biodiversity
- agricultural land and woodland soils
- groundwater
- visual impacts on landscape
- carbon storage within the different ecosystems.

What happens if the Partnership Funding score is too low? Would the scheme still be carried out?

Central government funding is based on the level of benefits the preferred option provides. Other third party contributions may be essential for the preferred option to proceed if national funding is insufficient. The Strategy has started to review the opportunities for co-ordinating funding between partner organisations, and this will be recorded in the final reporting.

Communities with larger populations, where more people and properties are at risk, are more likely to receive national funding than elsewhere. It may become increasingly difficult to maintain flood defences for very small settlements, isolated properties and farmland. This is due to the defences requiring larger works as they age and deteriorate in condition, which requires more funding. In addition to national funding, money can come from local authorities and from local contributions.

The Strategy highlights areas where there is the greatest justification for government funding as well as those where third-party funding may be required. This economic assessment has been carried out in line with government guidance, and is the same approach that is used across the country for all flood and erosion risk management schemes.

What does the benefit cost ratio mean?

The benefit cost analysis follows government guidance for Flood and Coastal Risk Management, as defined by the HM Treasury Green Book. It takes account of household, environmental and other benefits including disruption to businesses, transport and other infrastructure. It is based on a calculation of damages that would occur without a coastal defence scheme and the resultant

benefits and costs provided by a scheme. Based on government guidance the benefit cost ratio has to be calculated. The benefit cost ratio compares the value of the benefits protected from flooding/ erosion, with the cost of the scheme to protect them ($BCR = \text{Benefits} / \text{Costs}$). The benefit cost ratio has to be greater than 1, to show that the value of the assets is greater than the costs to protect them to ensure that tax payers money is invested wisely.

There does not appear to be enough detail included within the Strategy.

A coastal strategy is developed to plan the management of the coastline over the next 100 years. The aim of the Strategy is to build upon the high-level policies that were outlined in the Medway and Swale Estuary Shoreline Management Plan and the North Foreland Shoreline Management Plan. These were developed in 2010 to protect coastal communities and prevent the loss of coastal environments. The Strategy will provide decision makers (the Environment Agency and risk management authorities) with more detail on the specific schemes, and highlight when these works should be carried out.

Owing to the long timescales that MEASS is considering, various assumptions have had to be made. The Strategy will recommend options for further investigation and helps identify funding and resource needed to take these more detailed schemes forward. These options will then be considered further at the more detailed project stage to refine the details of the options.

Although the Strategy covers 100 years, it is recommended that it is reviewed regularly (every 5-10 years) to ensure that the content of the Strategy is still relevant. When it's reviewed, if more detail is available, we will use it to update the Strategy recommendations.

How did you advertise the consultation of the draft Strategy?

The public were invited to comment on the draft leading options for MEASS between November 2017 and February 2018. During this period 3 drop-in sessions were held in November to December 2017 so that you could chat to us directly.

The exhibitions were advertised via:

- an article in Inside Swale magazine (a local authority publication delivered to all residents within the borough during November 2017).
- a press release issued at beginning of public consultation phase during November 2017.
- a radio interview with Radio Kent during December 2017.
- details posted on the consultation website (<https://www.gov.uk/government/publications/medway-estuary-and-swale-flood-and-coastal-risk-management-strategy/medway-estuary-and-swale-flood-and-coastal-risk-management-strategy>).
- a briefing note sent to all affected MPs to share with their constituents prior to the start of consultation.
- tweets: 1 at consultation launch, 1 prior to each public drop in event, 1 during January to remind about public consultation, all including direct link to consultation website.
- posters sent to all members of the MEASS Stakeholder Engagement Group and Parish Councils. We received confirmation that posters were displayed at: Sheerness leisure centre, Burham PC, Teynham PC, Halling PC, Eastchurch PC, Sheppey Gateway (Sheerness), St Mary's Island residents association (SMIRA) website.
- posters forwarded on to wider distribution groups by Medway and Swale Estuary Partnership (MSEP), and Medway Council.

The consultation information was also presented on the online project website for you to view and comment on. Within the webpage and online consultation the HRA and SEA were also published and available for comments.

How can we be kept informed as the Strategy progresses?

We have carried out extensive consultation throughout MEASS. We have recorded in the Implementation Plan stakeholders who want more information on the Strategy and we will contact them with Strategy developments. The plan identifies the next stages, along with who will be consulted and when.

Some key parties have also said they would like to be kept informed as the Strategy progresses. This has been recorded and we will ensure they are contacted as schemes in their areas are taken forward.

4.2. Comments on specific Benefit Areas

Concerns around risk of NAI option on Brickfields site (BA4.4).

It was highlighted during the public drop in events, and through consultation responses received, that the Brickfield site is an important amenity area for local residents. We had not appreciated this previously, and the risks associated with future flooding of this site have now been highlighted within the Strategy.

Although there is limited funding available for this area, we will consider the opportunities of including this site as part of the future scheme development, which is currently programmed for 2026. Should there be third party funding available in this area, there could be potential to extend the Hold the Line policy.

How has the key infrastructure in BA4.7 (Chetney Marshes) been considered and what will be the risk for this infrastructure?

There is key national infrastructure including power lines located on Chetney Marshes. Risks associated with impacts of flooding and options to the infrastructure has been highlighted throughout the development of the Strategy. The presence of this infrastructure is one of the key reasons why Managed Realignment was deemed unsuitable for this location. However, it was identified that a Habitat Adaptation option could be taken forward.

The Habitat Adaptation option aims to allow a more adaptive approach to managed realignment. During the next stage of the Strategy development, we would need to assess how the infrastructure is to be protected, but considerations are likely to include localised raising of land, localised embankments, and ensuring ongoing access is provided.

We will work with the owners of the infrastructure as key stakeholders to develop the details of these plans further.

Is there a risk of conflict with the potential solar farm plans in BA6.2 (Cleve Hill) and the proposed Managed Realignment site?

Currently the Strategy recommends a Managed Realignment site at Cleve Hill in year 20, to help provide compensatory habitat across the Strategy. This is required as part of the legal obligations associated with the Habitat Regulations. This conflicts with recently published proposals to build a solar farm in the same area. Currently, the status and plans for the solar farm are uncertain and we are liaising, and will continue to liaise, with the interested parties going forward.

Should the plans for the solar farm at Cleve Hill be approved and this moves forward to construction, the following will replace the current policy:

- We will not take responsibility for continued maintenance of the defences in this area.
- A Managed Realignment site would be proposed in the longer term following the lifetime of the solar farm.

- Managed Realignment in other parts of the Strategy would be bought forward into the second epoch (years 20 - 50), rather than as third epoch (years 50 - 100) considerations.

A number of comments and concerns were received regarding the NAI policy at Minster Cliffs (BA 9.2 and BA10).

The proposed coastal defence policy for Minster Cliffs (western part of BA9.2 and BA10) is No Active Intervention (NAI). This is in line with the Isle of Grain to South Foreland Shoreline Management Plan (SMP) 2010 and Swale Borough Council Coastal Change Management Study. The SMP was developed using a group of 240 organisations and the policy was agreed with Swale Borough Council, the South East Coastal Group and local Elected Members.

Recent discussions over the status of the Site of Special Scientific Interest (SSSI) within this section of the cliff led to a review of its interest by Natural England. This reaffirmed that the whole area of the SSSI still meets the SSSI standard. In order to conserve and enhance the geological interest of the SSSI, the site needs to remain open to coastal processes and the resulting erosion.

We also need to consider whether there is the potential for direct or indirect effects on internationally designated wildlife sites further up the coast, due to sediment which is released from the erosion of the cliffs and is then transported along the coast through wave action. These include Special Protection Areas (SPAs) and Ramsar sites (sites of importance for their bird populations and afforded protection under UK law), as well as Marine Conservation Zones (MCZs), which are areas designated for the protection of marine habitats and species.

The proposed NAI policy is predominantly based on the assessment of the cliffs being of geological interest, however there is also limited funding for works in the area. The number of properties (benefits) in an area determines the central government funding available for works to be carried out.

Whilst the policy on the frontage is NAI, the Strategy highlights the risk to properties as well as heritage assets in these areas and recommends that adaptation options are explored and considered for residents in the area.

Future implementation of these adaptation options would be led by Swale Borough Council who are the Lead Risk Management Authority for coastal erosion and covers this section of frontage. This is likely to include monitoring of the cliffs and studies to develop the preferred option. These studies will be dependant of the availability of funding from different sources. Engagement with the public and key stakeholders will continue throughout the implementation and future work to ensure they are kept up to date with any developments for this frontage.

We will continue discussions with Swale Borough Council to look at property rollback or relocation type options and funding for facilitating this. Property roll back could include the movement of individual properties further back from the cliff edge, whereas the relocation of properties could include the existing properties being left in situ and new properties constructed to house residents.

4.3. Comments which have influenced option decisions

" Under the Habitats Regulation Assessment, there is a requirement to provide both coastal squeeze compensation and compensation for loss of Ramsar and SPA habitat functionality."

We have updated a number of Strategy options to incorporate comments made during our consultation on the Habitats Regulations Assessment. These are summarised below.

Benefit Area	Old Option	New Option	Reason for Change	Impacts
1.3 Abbotts Court	Maintain to year 25 then No Active Intervention.	Managed Realignment to the west of the BA in year 10. The rest of the BA stays as maintain until year 25, then No Active Intervention.	The Strategy will contribute to a process called coastal squeeze in the Medway Estuary. This means that if sea levels rise, the saltmarsh in the estuary will be at risk of habitat loss. Under international law, there is a requirement to provide compensatory habitat. Although alternatives to this site were investigated, they cannot provide the required amount of habitat compensation, and therefore this was needed as an additional site. There is a possibility that additional compensation could be identified outside of the Strategy area, and if this occurs further negotiation around the location and timing of this site could be undertaken.	Land behind the Managed Realignment site will have a minor improvement in flood protection Managed Realignment site provides compensatory habitat required for the Strategy. Wider habitat biodiversity outcomes Freshwater compensation is required under legislation in year 10 rather than year 25
3.5 Wouldham Marshes	Managed Realignment site from Year 5.	No Active Intervention.	The Managed Realignment site was proposed to create compensation for SPA and RAMSAR internationally designated habitat. However, following further discussions with different experts and reviewing additional bird data, it has been determined that the site will not be suitable for Managed Realignment and compensation will need to be created elsewhere. The alternative potential here is No Active Intervention. This means that there is no central government funding but the defences could be privately maintained.	The defences are at risk from failure from year 5. As this is not a formalised Managed Realignment site, the landowner is able to opt to maintain defences themselves through private funding. Risk of flooding under extreme events to Ringshill Farm Cottages and Starkey Castle Lodge. Property level protection may be required here. Impacts from increased overtopping to priority habitat.

<p>4.7 Chetney</p>	<p>Maintain to year 15 then Habitat Adaptation</p>	<p>MR site at Tailness Marsh in year 5 and Maintain to year 15, then Habitat Adaptation</p>	<p>The Strategy will contribute to a process called coastal squeeze in the Medway Estuary. This means that if sea levels rise, the saltmarsh in the estuary will be at risk of habitat loss. Under international law, there is a requirement to provide compensatory habitat and there are requirements to provide more compensation in the first 5 years of the Strategy.</p>	<p>The majority of the site will stay as previously proposed.</p> <p>The north east corner of the frontage at Tailness Marshes will, if modelling results are positive, become a Managed Realignment site in the shorter term by year 5 as opposed to by year 25 onwards.</p>
<p>8.3 South Sheppey</p>	<p>Maintain and raise defences in line with sea level rise.</p>	<p>Maintain and raise defences in line with sea level rise with Managed Realignment at Spitend Marshes in year 5.</p>	<p>The Strategy will contribute to a process called coastal squeeze in the Medway Estuary. This means that under sea level rise scenarios, the saltmarsh in the estuary will be at risk of habitat loss. Under international law, there is a requirement to provide compensatory habitat and there are requirements to provide more compensation for the Strategy.</p>	<p>The majority of the site will stay as previously proposed.</p> <p>The area by the end of Spitend marshes will become a Managed Realignment site by year 5.</p> <p>Great Bells Farm will provide compensatory freshwater habitat.</p>

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