

Open Report on behalf of Andy Gutherson, Executive Director – Place

Report to:	Flood and Water Management Scrutiny Committee
Date:	09 September 2019
Subject:	Response to Saltfleet to Gibraltar Point Strategy Public Consultation

Summary:

Between 5 June and 25 August 2019 the Environment Agency consulted on a draft strategy for coastal management from Saltfleet to Gibraltar Point. The present report outlines the contents of this document, updates members on the response submitted by Lincolnshire County Council, and sets out the Council's proposals for developing the Strategy within the context of a broader approach to the economic, social and environmental future of the county's coastal areas.

Actions Required:

The Committee is asked to note the report and the response previously submitted, and to guide officers in developing a long term joined up approach to the future of coastal Lincolnshire.

1. Background

The Environment Agency is responsible for managing the risk of flooding along Lincolnshire's coast, from Saltfleet in the north to the boundary with Norfolk at Wolferton Creek on the Wash. The most intensive management work is undertaken in the area from Mablethorpe to south of Skegness, where coastal processes are most active and where the potential for coastal flooding is greater.

Coastal management works are planned in five year cycles, with the current programme due to conclude at the end of March 2021. Since 2016 the Environment Agency, working through the Lincolnshire flood risk and water management partnership, has worked with its partner agencies and coastal stakeholder groups to identify medium and long term approaches to continuing to manage coastal flood risk after March 2021.

A public consultation was launched by the Environment Agency on 3 June 2019, presenting the results of this engagement in a draft strategy, and concluded on 25 August 2019. The Committee may wish to note the response submitted by Lincolnshire County Council, and consider shaping next steps in developing a co-ordinated vision for the coastal areas of Lincolnshire to inform and influence the

choices to be made regarding future coastal management methods so that key sectors of the county's economy can continue to develop and grow.

Draft Saltfleet to Gibraltar Point Strategy

Lincolnshire's coastal areas are critical to the county's economy now, and to its future potential for developing and growing its key strengths in the future. In particular this relates to the agri-food and visitor economies, but it also directly impacts on the social and environmental health of a substantial residential population, as well as utilities infrastructure and manufacturing concerns.

For these reasons the approach adopted for coastal management, in combination with those developed for the Humber Estuary, will play an integral part in shaping the future of (Greater) Lincolnshire's economy, society and environment. While in the short term it is envisaged that current practices will continue, it is anticipated that rising sea levels will require a different approach thereafter. This preparation will need to begin in parallel with the early stages of delivering the strategy.

What happens at present?

At present, the Mablethorpe-Skegness section of the east coast is managed by replenishing sand which is lost from the beaches by natural processes of erosion. This material is dredged from licensed locations offshore in the North Sea, and is applied to areas where losses have been pronounced. A number of these locations (known as 'hotspots') have been identified and this is where the most regular application of material is delivered. The annual operation costs between £5m and £7m, which is fully funded by national sources up to March 2021.

The sections of the coast northwards and southwards of the actively managed area are currently accumulating material through the same natural processes, and therefore are not subject to the same regime of replenishment. The effect of the broad, gently-sloping beach is to reduce wave energy. This avoids direct impact and damage to main raised flood defences behind the beach, whether artificial flood walls or strengthened naturally occurring dunes.

Ongoing sea level rise means that eventually a point will be reached where the quantities of material required to maintain the beaches at the required profile will be so great as to become economically and technically unviable. The latest climate and sea level projections suggest that this situation could arise at some point within the next thirty years.

What is proposed?

The draft strategy sets out the following objectives:

- To provide sustainable flood risk management over the 100 year term of the strategy
- To mitigate against the risks of and adapt to the challenges of climate change and reduce our carbon footprint

- To continue to investigate opportunities to secure the funding required to deliver the strategy
- To protect the social, recreational, cultural, agricultural and commercial value of the coastal floodplain
- To adapt to future opportunities, challenges and other key issues including tourism as well as environmental, social and economic factors
- To support sustainable and resilient development in the coastal floodplain for economic growth

In line with the draft national flood risk strategy, there is a strong emphasis on developing the capacity for resilience in local communities and businesses through meeting these objectives.

The approach proposed by the strategy to achieve these objectives is to combine the current method of beach replenishment with structures on the beach as the most cost-effective and sustainable basis for future tidal flood risk management.

Implementation of specific elements within the strategy will depend on a number of potential triggers, including the following

Trigger	Examples
Funding	New government funding rules
Climate change	Faster or slower sea level rise than predicted; increased storm rates
Availability of materials	Scarcity of non-renewable resources
Policy and plan change	Change in local government plans
Implementation impacts	Observed effects after implementing step change
Technological development	Availability of cost-saving new technology
Asset condition and performance	Decreased or increased losses of sand on the beach
Defence failure	Loss of beach
Resource resilience and succession planning	Limited number of experts in the relevant fields
Public and institutional acceptance of works needed to manage flood risk	Public's raised awareness of flood risk following a significant event

The proposed structures could take a number of forms, ranging in frequency along the coast and in size. Rock fishtail structures or groynes could both help manage tidal flood risk by absorbing energy from incoming waves and stabilising sand movement and losses. This would

- reduce the amount of work required to maintain beach levels
- protect both soft dune systems and hard seawalls from the impact of wave action and tides
- reduce the carbon footprint of flood risk management works in the area

Phased approach - proposed timescales

2021-2026: continued beach renourishment; focus on plans for the structures, including environmental assessments, and required permissions and consents; exploration of rock structure configurations and designs for consultation and potential additional funding opportunities.

2026-2031: subject to outcomes of previous phase, introduction of first set of rock structures in combination with continued beach nourishment. Locations to be determined during the detailed design phase, informed by technical engineering knowledge, consultation with stakeholders, funders and local residents, as well as engagement with any other interested parties. It is likely that the first set of structures will be built in Zone B, between Mablethorpe and Skegness, where 'hotspots' for losses of sand have already been identified.

2031 onwards: performance of the structures will need to be closely monitored to determine future configurations, positioning and size. Delivery of further structures will depend on the triggers for change outlined above. Continuous monitoring of the coast will be required, to inform ongoing reviews of coastal management methods along the whole coast between Saltfleet and Gibraltar Point. It is expected that nourishment requirements will reduce significantly after the rock structures have had time to establish, which could lead to significant overall reduction of costs while sustaining Lincolnshire's coastal communities with a good standard of protection from tidal flooding.

2. Conclusion

In discussion with its partners in the flood risk and water management partnership, Lincolnshire County Council has responded to the consultation supporting the key proposals (see response at Appendix B). It is also proposed that the development of the strategy should be seen as an opportunity to build on existing policy and delivery approaches to the coastal area, which makes a major contribution to economic growth and the development of Greater Lincolnshire, the region and the UK economy. Coastal management, therefore, has a potential impact far beyond the protection of those communities immediately on or behind the coastline itself.

This has already been recognised in the high level coastal vision developed through the Greater Lincolnshire LEP, and there is now an opportunity to go beyond this to ensure that there is a shared vision for the future of Lincolnshire's coast that can inform the choice of coastal management techniques and can help to facilitate the right future for the coastal areas, and for Greater Lincolnshire as a whole.

3. Consultation

a) Have Risks and Impact Analysis been carried out?

Yes

b) Risks and Impact Analysis

Strategic Environmental Assessment is available on the Government's website via the following link <https://www.gov.uk/government/consultations/saltfleet-to-gibraltar-point-strategy-consultation>

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Non-technical summary of the Saltfleet to Gibraltar Point Strategy
Appendix B	Lincolnshire County Council's response to the consultation exercise on the Saltfleet to Gibraltar Point Strategy

5. Background Papers

This report was written by David Hickman, who can be contacted on 01522 554809 or david.hickman@lincolnshire.gov.uk.

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