

Exmouth Beach Management Plan Update Project

Background

The current Exmouth Beach Management Plan (BMP) was adopted by East Devon District Council (EDDC) at a cabinet meeting on 17th November 2015. It is recognised to be good practice to periodically review a BMP to take into account new coastal monitoring information and other evidence. As such, EDDC have commenced this project to provide a review and update of the Exmouth BMP, including a review of the options for the long-term sustainable management of the coastal defences. Technical consultants AECOM have been appointed to lead this work. EDDC are also supported in this project by experts from the Environment Agency and BCP Council.

The area under consideration in this BMP update project extends from Orcombe Point to Exmouth Marina and is shown in Figure 1.



Figure 1: Exmouth BMP Update project extent.

The Purpose of the BMP

The BMP area is at risk of both coastal flooding and erosion (see Figure 2).

The purpose of the BMP is to set-out the sustainable approach to be taken by EDDC to manage the risk of coastal flooding and erosion to property and other assets along the Exmouth frontage in the immediate future by ensuring that an adequate beach is maintained in support of the hard defence/control structures, alongside adequate maintenance of the hard defence structures themselves to ensure they remain in good to fair condition; set in the context of what needs to happen longer-term to achieve this to secure the long-term future of Exmouth seafront for future generations to enjoy in the way that many people do so today.

Since adoption of the Exmouth BMP in 2015, there have been a number of developments that now need to be considered and reflected in the review and update of the BMP, including:

- There is now many more years of coastal monitoring data available. This data needs to be reviewed and analysed to further the understanding of beach dynamics and the processes of beach level lowering and recovery.
- Climate change guidance was updated in 2018 and the changes in assumed rates of sea level rise need to be considered in relation to short and long-term beach and coastal defence management approaches across the BMP area.
- National guidance and funding rules for flood and coastal defence schemes have changed, and the implications for the amount of Government funding available for Exmouth needs to be reassessed.

- The current condition of the coastal defences and the impacts of recent storm damage and emergency repair works needs to be accounted for and incorporated into the BMP and options for their future management.

We have also identified that the current approach to coastal risk management will not sustain a beach at Exmouth in the long-term, and that this will have a significant impact on the tourism and amenity value of the area.

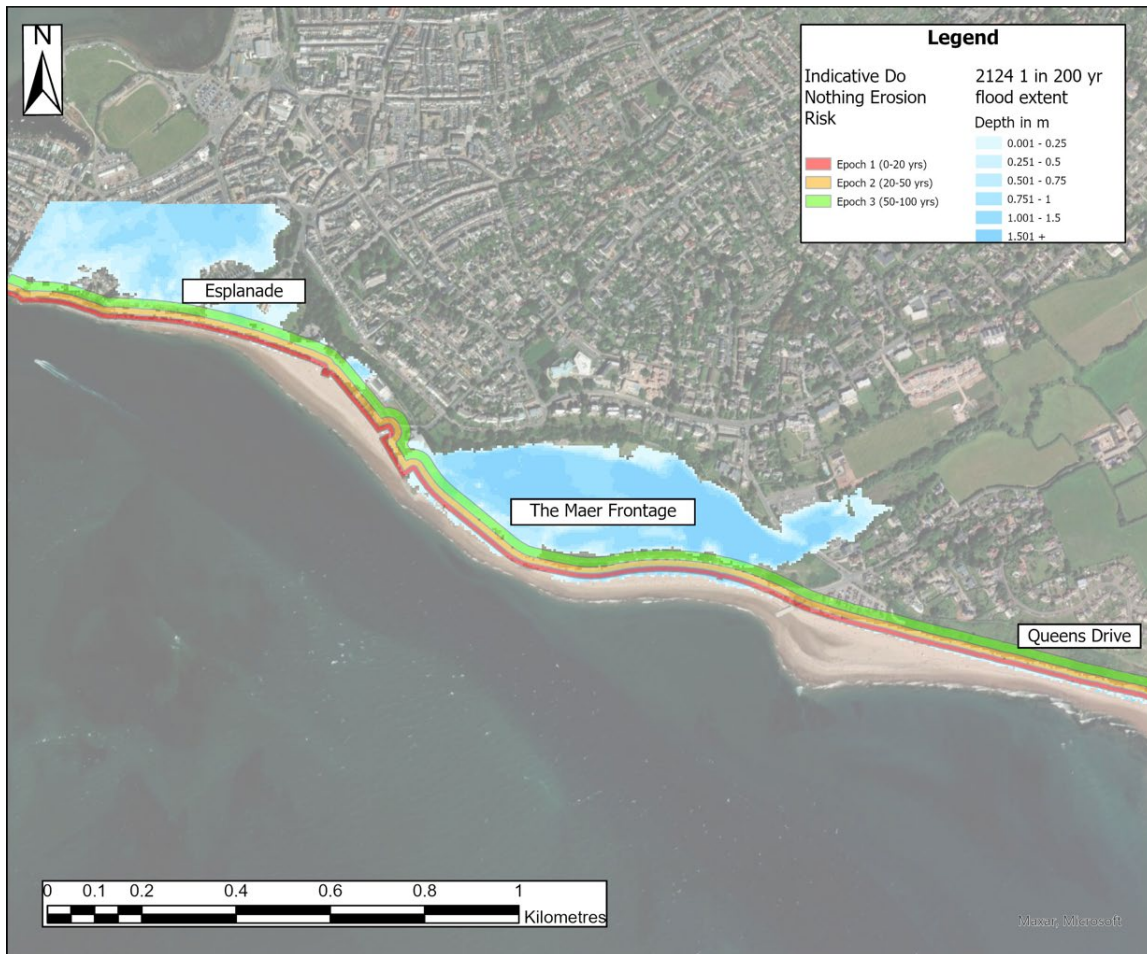


Figure 2: Areas at risk of flooding and erosion along the Exmouth BMP frontage in 100 years if we do nothing to manage coastal defences.

Project Approach

The project to develop the Exmouth BMP Update commenced in October 2023 and is currently anticipated to be completed by Spring 2025. The project is being undertaken in stages, summarised as follows:

<ul style="list-style-type: none"> Stage 1 – Data Collation & Review to gather all relevant evidence to inform the BMP update. 	COMPLETE
<ul style="list-style-type: none"> Stage 2 – Establish the Baseline Scenario by undertaking analysis and assessment of the physical processes of the area, how these interact with built structures, and how these may change in response to climate change, in order to provide an updated assessment of the risks posed if we were to “do nothing” to manage them. 	COMPLETE
<ul style="list-style-type: none"> Stage 3 – Future Management Regime Appraisal by undertaking a critical review and update of 2015 BMP options appraisal considering latest technical, environmental and economic evidence. New statutory environmental assessments and public consultation will be part of this stage. 	CURRENT STAGE
<ul style="list-style-type: none"> Stage 4 – Reporting: The updated BMP documents will be produced and submitted for approval by EDDC’s cabinet. Once approved, the updated BMP will be published and guide management of the beach and coastal defences at Exmouth. 	NOT STARTED

The Draft Proposed Leading Options

In Stage 3 the project team have engaged with local stakeholders as part of identifying and assessing the technical, environmental and economic suitability of options for managing the risk of coastal erosion and flooding along the BMP area.

This has resulted in three possible leading options being identified for how the risk of coastal flooding and erosion can be managed: the National Economic Leading Option, the Local Aspirational Option and the Backup option. Each type of option outlines the planned coastal defence interventions during different periods of time, the short, medium and long term.

Option 1: The National Economic Leading Option – Seawall Encasement with Setback Floodwall

This is the most cost-beneficial option following the current national appraisal and funding rules for Flood and Coastal Erosion Risk Management as defined by Government.

This option will significantly reduce the risk of coastal erosion and flooding whilst reducing the reliance on having high beach levels in front of the seawall (i.e. it will reduce the risk of undermining posed by low beach levels that occur along Exmouth Beach).

However, as a consequence the beach at Exmouth would be vulnerable to erosion during storms and becoming smaller or even lost longer term as sea levels rise, which would have a significant impact on the amenity value of the beach and tourism in Exmouth.

Under the current funding rules, this option is only eligible for £800,000 to £900,000 of central Government funding for coastal defence works. To implement this option, additional funding of around £18 million would need to be secured over the next 10 years to enable new coastal defences to be constructed round 2035.

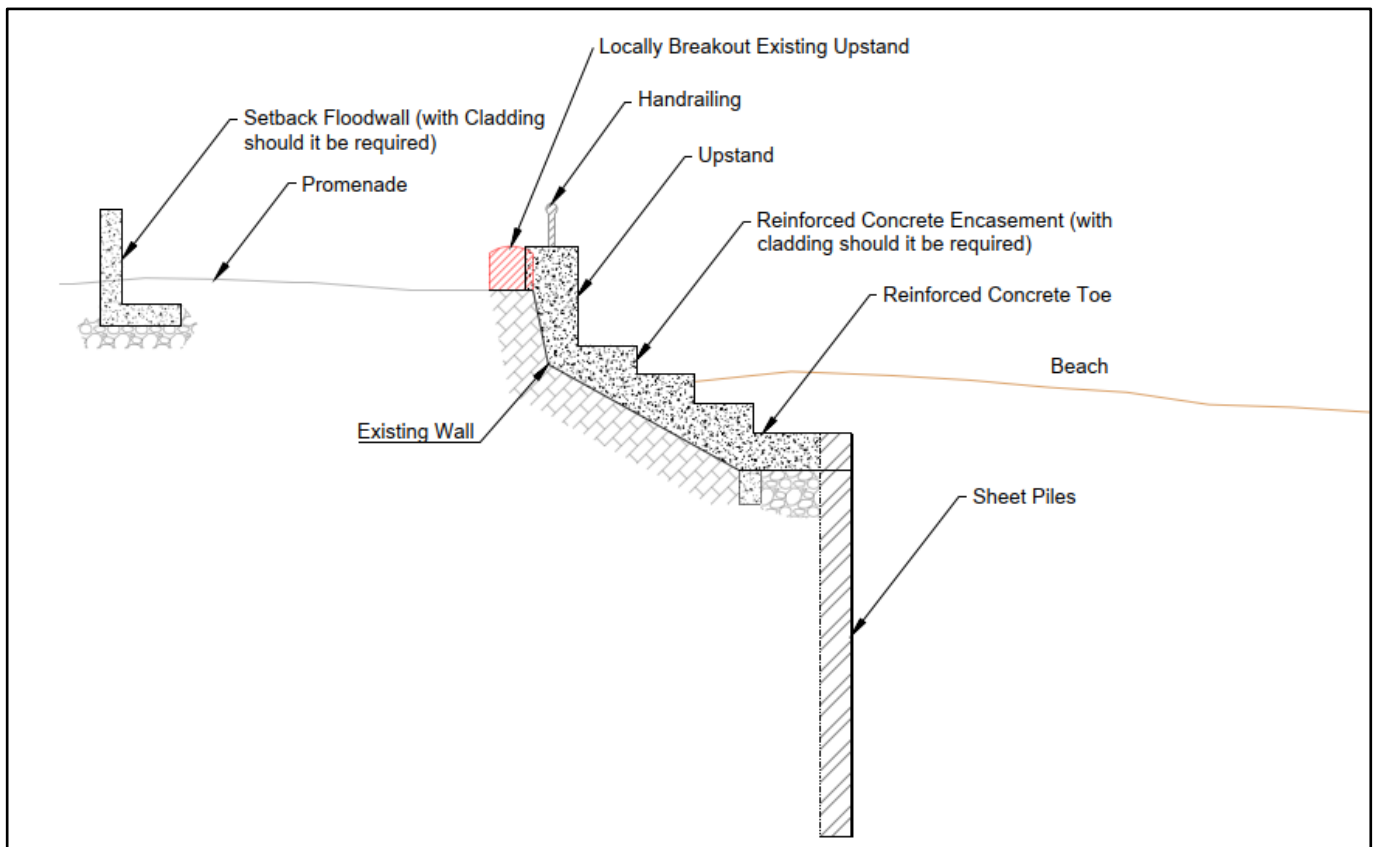


Figure 3: Indicative design for the National Economic Leading Option.

Option 2: The Local Aspirational Leading Option – Beach Nourishment with Groynes and Setback Floodwall

This option 2 recognises the option 1 may not be preferable for the local community, and so proposes an alternative option that has been identified through engagement with local stakeholders that will deliver wider benefits to the area beyond just protection against coastal erosion and flood risk.

Option 2 therefore aims to continue to use the beach as the main defence in front of the existing seawall, with the existing groynes along Queens Drive being replaced and new groynes being constructed along The Maer section of beach. The groynes could be constructed of timber or rock, and would help control the beach levels more than at present. This would therefore also retain the beach for its wider amenity and tourism benefits. If this option is progressed, there would need to be further detailed modelling to determine the most appropriate groyne design and arrangement along the shoreline.

With sea level rise this option may not fully address the risk of coastal flooding long-term, and so a setback floodwall may also need to be constructed at a future date.

As for option 1, under the current funding rules, this option is only eligible for £800,000 to £900,000 of central Government funding for coastal defence works. To implement this option, additional funding of between £20-23 million would need to be secured over the next 10 years to enable new coastal defences to be constructed round 2035.

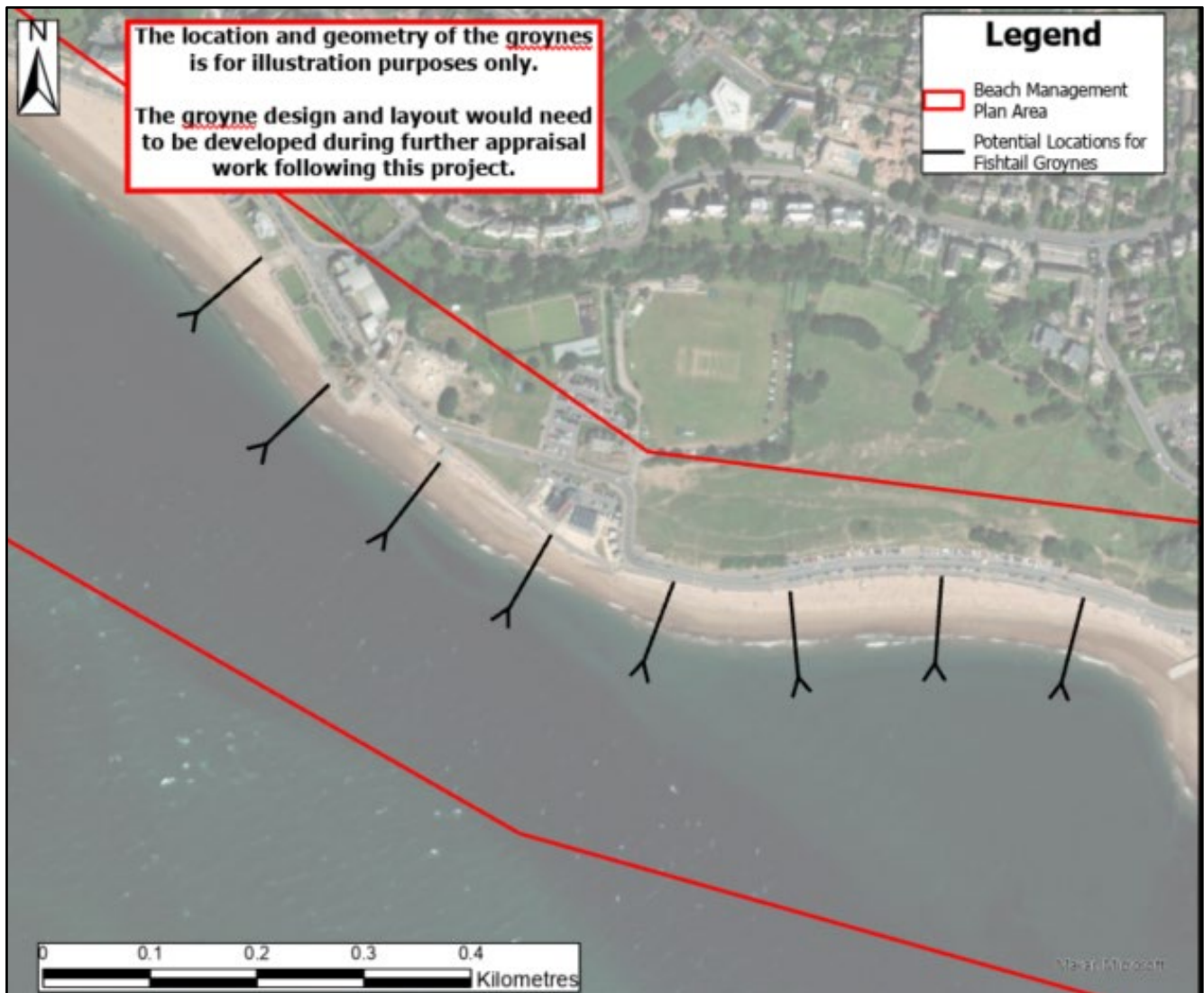


Figure 4: Potential locations for fishtail groynes. Timber groynes could potentially be used in the same area with slightly different spacing.

Option 3: The Back-up Option – Do Minimum

This option is the current approach to managing the risks of coastal flooding and erosion at Exmouth and is unlikely to secure the frontage in the long-term. It also means that there will be a significant risk of further seawall failures requiring expensive emergency works at great cost to EDDC which cannot be planned for.

However, it is included here as Option 3 as we recognise that both Options 1 and 2 require significant funding contributions to be found to unlock the proportion of funding that is available for coastal defence works from central Government.

Recognising that it is uncertain if or when that additional funding will be secured, this option 3 provides a lower cost solution to managing the risk of coastal erosion and flooding in the immediate future, but will not be a sustainable solution over the long-term.

Option 3 therefore would involve small-scale repair and maintenance of the existing seawall and groynes but would not address the risk of undermining of the seawall if the beach in front lowers in future as a result of storms. This option is not eligible for central Government funding for coastal defences, and so would depend on funding coming from Local Authority budgets.



Figure 5: Emergency repairs at Exmouth during Spring 2024.

Funding & Adaptability

Funding is a key constraint when undertaking flood and coastal erosion risk management schemes. Funding from central government is known as Flood and Coastal Erosion Risk Management Grant in Aid (FCERM-GiA) and is available for coastal defences. However, this typically does not cover the full cost of a coastal defence scheme and is distributed based on the benefits that are delivered. Central government funding will need to be topped up by other sources of funding and contributions in order to deliver the leading option.

Given that funding is a key constraint, we have identified the three option types (National Economic, Local Aspirational and Backup) so that the delivery team can move between them over time, depending on the amount of funding that may be available. Other factors will also influence which option is delivered, such as the onset of coastal flooding and erosion risks, and the frequency of storm damage necessitating emergency repairs.

The movement between the different options are known as 'Adaptive Pathways'. It provides the delivery team with the required flexibility to adjust course depending on the risks / funding availability. For example, if more funding

becomes available than expected, the delivery team could switch from delivering the National Economic Leading Option to the Local Aspirational Option.

How you can help at this time

We are currently consulting on the three Draft Proposed Leading Options as described above. This is your opportunity to share your thoughts on the proposed options for the long-term future of these defences with the project team.

As part of this consultation period, a drop-in engagement event will be held to for members of the public to find out more about these options. This event will occur **Tuesday 26th November 2024, 2pm - 7pm at Exmouth Town Hall**, St Andrews Road, Exmouth EX8 1AW. Members of the project team will be available to answer questions about the options and the BMP update project overall.



We will also have a survey running for the full consultation period 18th November 2024 to 10th February 2025 for people to share their thoughts and local knowledge with the project team. You can complete the survey online by scanning the QR code or visiting <https://exmouthbeachmanagementplan.commonplace.is/>. Alternatively, you can collect a hard-copy version of the survey from Exmouth Town Hall.

Further information

To find out more and keep up to date with this project, as well as view the current (2015) Exmouth BMP, please visit the project website: eastdevon.gov.uk/exmouth-bmp.