

Fairbourne Coastal Defence – Proposed Friog Corner Works

Background

The Fairbourne sea wall is the primary defence that protects Fairbourne from coastal flooding. Following storm-induced erosion of the beach adjacent to NRW's coastal defence structure at Friog Corner and the depletion of beach material covering the toe of the defence structures, we carried out emergency works in 2014 to protect a 75 metre section of defence, utilising rock armour from a local quarry.

Erosion and Shingle Depletion

Beach shingle, which can be seen in vast quantities along much of the Fairbourne coastline, naturally assists the engineered defence. At Friog Corner there are signs of shingle depletion, and although a natural occurrence, this has placed the concrete defence itself under greater pressure, increasing the risk of damage and overtopping.

Developing a Solution

The 2014 emergency works were undertaken to ensure the immediate integrity of the defence and safety of the community. Since then we have commissioned a detailed report to look at any further works to ensure these defences are effective and sustainable. Recommendations contained in the report have been adopted by NRW in our proposed way forward and a preferred option devised that will offer a vital contribution to managing natural risk to the community of Fairbourne.

The Proposed Friog Corner Works

We now propose improvements that will enhance the emergency works we've already completed and contribute to their sustainability and resilience.

We propose to:

- Import additional rock armour to reinforce a section of the defence at Friog Corner.
- Replenish the beach with shingle on the seaward side of the new armour to help protect it.

- Create a maintenance programme to sustain the defence and the important synergy between the hard engineered defence and the natural beach.
- Monitoring changes so that we know how well the structures perform over time and when maintenance might be needed.

Utilising Natural Processes at Fairbourne

The coastal landscape and designated sites it holds are also important elements of Fairbourne. This proposal utilises excess material already within the system. By doing this we hope to establish a cyclical system that works with nature, supporting the natural balance of sediment transport here.

Progress

NRW will provide updates to progress in due course. If you have any enquiries in relation to NRW's continued Flood Risk Management activities in the locality, please contact:

reuben.woodford@naturalresourceswales.gov.uk

The Fairbourne Moving Forward Project Board, for which we are a member, in discussion with the community, has set an intent to defend the village for a period of 40 years (with a base date of 2014). As long as there remains funding available from Welsh Government, Natural Resources Wales will continue monitoring, maintaining and investing in flood defence assets to protect the community of Fairbourne. This time period will be reviewed taking into account information developed as part of the Fairbourne Moving Forward project.