

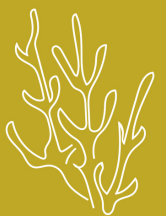
An aerial photograph of a coastal area, likely a beach or tidal flat. Several people are visible, some standing and others sitting on the ground. There are several large, grey, rectangular structures or barriers laid out on the sand. The area is surrounded by green vegetation and rocks.

Our Future Coast

ISSUE 2 • WINTER 2024/25

Lancaster District Sites: Hest Bank, Bolton-le-Sands & Jenny Brown's Point

**Working with Nature to Safeguard
Coastal Communities**





In 2021, DEFRA allocated £150 million to 25 projects across the country under the Flood and Coastal Resilience Innovation Programme (FCRIP).

Welcome!

The Programme aims to deliver practical actions to reduce the future costs and damages from flooding and coastal erosion.

Our Future Coast is one of those 25 projects. Led by Wyre Council, the project includes 12 case study sites along the North West Coast. Lancaster City Council, with support from Morecambe Bay Partnership, manage three of those sites: Hest Bank, Bolton-le-Sands & Jenny Brown's Point.

A word from our Bea Beggs- Our Future Coast Programme Manager

Lancaster City Council, as part of Our Future Coast, have proactively sought to trial a wide range of natural and biodegradable options for retaining coastal sediment and allowing saltmarsh to reform, protect our coast and provide us with all important green blue natural habitats for nature and people.

It has been a real pleasure to work with Lancaster City Council and the communities of Hest Bank, Bolton-le-Sands and Jenny Brown's Point; these sites represent the future of coastal management with communities working alongside risk management professionals to protect and enhance our precious coastal space



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Summer Workshops

We held a variety of community workshops over the summer, inspired and informed by Lancaster University's Coastal Nature Lab. Take a look at what we achieved!

Rope Making and Willow Weaving Workshop

3rd August 2024, Slyne With Hest Memorial Hall

Caroline Dear and Martha Orbach are artists specialising in natural fibres and rope making. They showed us how rope is traditionally made using different plants, before we had a go ourselves. We used purple moor grass as well as straw and nettle, all of which can be found locally. We then moved onto using manila rope and learned different knotting techniques to make shapes and patterns inspired by nature. We're hoping such shapes could help to slow seabed currents and allow saltmarsh plants to establish.



Willow Weaving Workshop

6th August 2024, St. Luke's Parish Hall

Amy Gunawan, a local willow weaver from Lancaster, showed us how to weave willow and talked through soaking and different willow types. We used traditional basket making techniques to make 'turtle' structures, which will be pinned to the mudflat to help stabilise sediment. Importantly, the willow will biodegrade over time. We made 18 Turtles in total, a reflection of the hard work everyone put in!





Thatching Workshop

13th August 2024, Slyne With Hest Memorial Hall

Alan Jones, the last Master Thatcher in Wales, came to teach us traditional thatching knots and techniques which have been used for centuries. We learned the thatcher's knot and how to make ridge rolls, finishing them off with willow rose knots. We had a huge turn out at the thatching workshop, many thanks to all who came and had a go!



Siskin Workshop



17th September 2024, Hest Bank Shore

Many thanks to Siskin Asset Management for coming down to show us their techniques developed on the East Coast of Scotland. We took a variety of cheaply available, or waste, products, including Chestnut paling, untreated pallets, hessian cloth, wool fleeces and straw, to build different structures. We installed our structures on the day.

Deployment Workshop



23rd September 2024, Hest Bank Shore

As the tides were against us during the workshop season, we headed out to deploy the structures at the end of September. Despite the weather, we had a great turnout and lots of enthusiasm! Turn the page to see how we've been keeping an eye on them!



Nigel Thompson from the Morecambe Bay Podcast joined us at the deployment workshop.

Scan the QR code to listen to the episode, or Search for the Morecambe Bay Podcast



Installing Potato Starch Lattices

As well as our homemade willow, rope and thatched structures, we have also installed an 'off the shelf' restoration product, BESE-elements (Biodegradable EcoSystem Engineering). The elements are formed of stacked 3D lattices that aim to reduce local currents, protect germinating saltmarsh plants and allow saltmarsh to establish.

Designed in the Netherlands, the elements have been used all over the world to restore various marine ecosystems, including saltmarshes, mangroves, mussel beds and oyster reefs. Crucially, the elements are made of waste potato starch, so they will ultimately biodegrade in the marine environment.

We've deployed the BESE-elements in various arrangements as part of our saltmarsh regeneration at Hest Bank and Bolton le Sands. Over winter, we hope the elements will help to trap sediment, which will ultimately create the perfect conditions for saltmarsh plants to grow in Spring 2025.

We'll be keeping an eye on how these trial elements get on over the coming months. If they are successful, we'll be seeking to scale-up the trial and deploy the grids over larger areas. Keep a look out for volunteering opportunities to assist with future deployments!



Our work featured on BBC local radio and an article. Scan the QR code to read more!

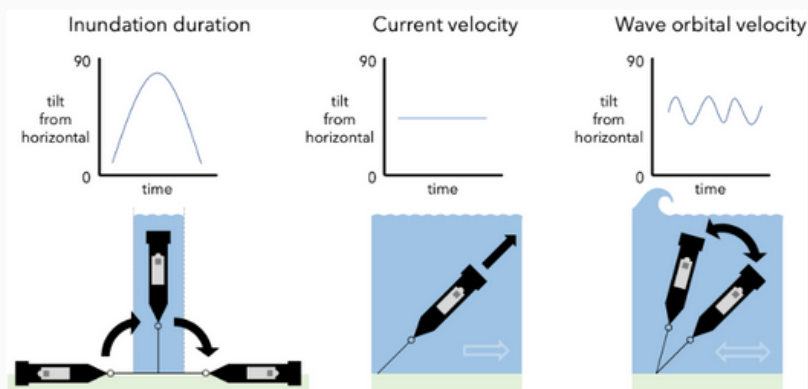




Monitoring

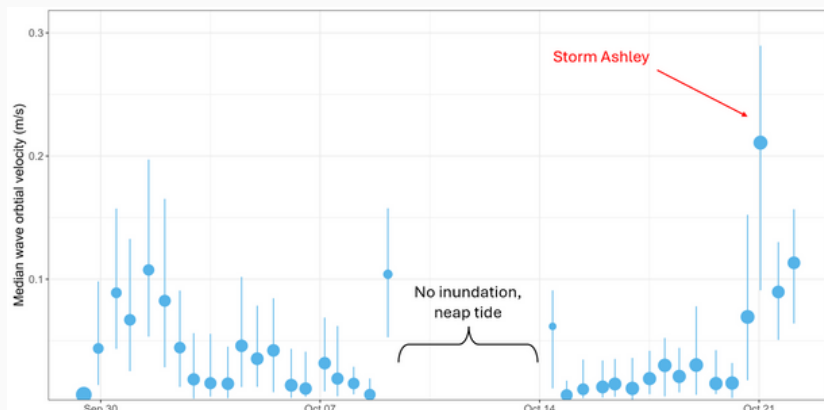
It is crucial that we monitor the progress of the various structures installed at Hest Bank and Bolton le Sands to understand whether they are helping to create favourable conditions for saltmarsh regeneration. An innovative approach is our use of 'Mini Buoys', a low-cost monitoring tool developed by researchers at Swansea University to measure the speed of waves and currents in shallow coastal settings.

The Mini Buoy consists of a data logger secured inside a waterproof casing, tethered to the seabed using a steel rod and fishing line. When submerged by the tide, the Buoy floats vertically on its tether, tilting and wobbling in response to the surrounding waves and currents. The stronger the current, the stronger the tilt. The data logger records this tilt and provides an accurate measurement of wave and current speeds over time.



Credit: Cai Ladd

We want to use the Mini Buoys to understand whether our structures help to slow currents and waves sufficiently to trap sediment and allow pioneer saltmarsh plants to grow. So far, we've conducted a short-term deployment at Hest Bank. The Buoys captured the impact of Storm Ashley, indicating an increase in wave speeds close to the seabed.



We'll be deploying more Buoys over the coming months. They will hopefully provide us with an improved understanding of the effect of the saltmarsh regeneration structures on the surrounding environment.

A Mini Buoy deployed at Hest Bank



Recording the position of a Mini Buoy at Hest Bank





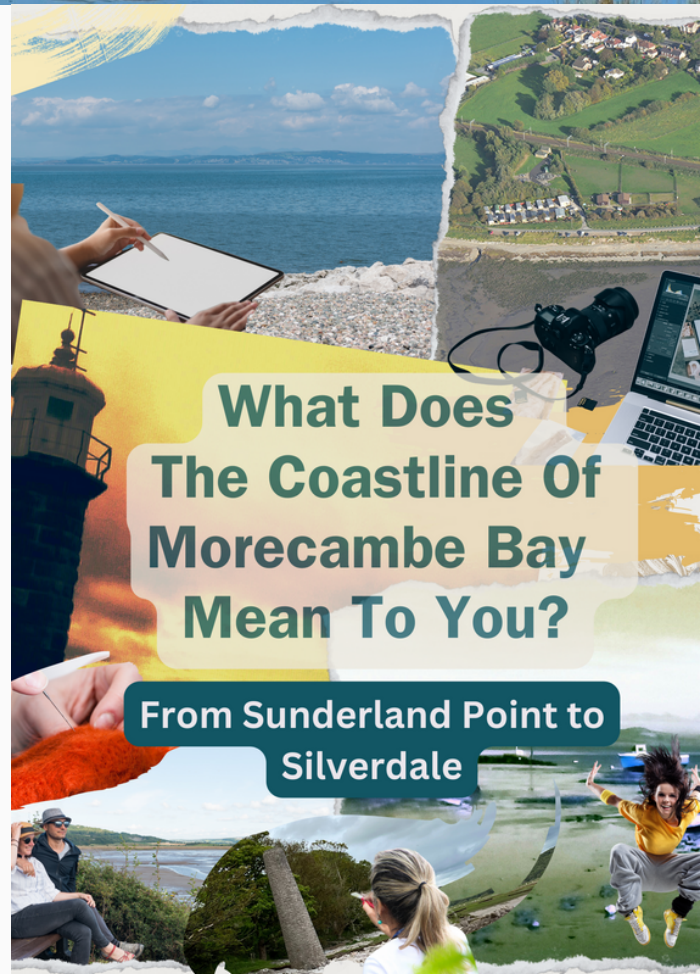
What Does the Coastline of Morecambe Bay Mean to you? Sunderland Point to Silverdale

We are inviting local craft and art groups (individuals are also most welcome!) across the Lancaster and Morecambe District to create art that represents what Morecambe Bay means to them.

What do you admire most about the coastline? What is interesting about it? How does it make you feel? From sunsets to the views, wildlife and life beside it, we are interested in it all!

All mediums are welcome, from paintings, tactile pieces, dance videos, digital, poetry and music pieces, and there's no limit to the number of pieces your group sends. We will be looking to collate submission in early 2025 ready for display in March.

To get involved please head over to our sign up page www.keepconnected.lancaster.gov.uk/ofc and scroll down to "Sign up to activities".



Jenny Brown's Point

We thank the Design Committee at Jenny Brown's Point for their thoughts, ideas and questions expressed earlier this year.

The site for our proposed structures falls under the jurisdiction of the Marine Management Authority, requiring additional permissions that were not needed at Hest Bank or Bolton-le-Sands. We are optimistic about starting in 2025 and will provide updates for future workshops and events via email.

Design Committee meeting for Jenny Brown's Point





Next Steps...

- Mini Buoy and radar monitoring of our structures over the winter and after storm periods.
- Photo Post installations- *coming soon!*
- Museums exhibition coming March 2025.
- Organising summer 2025 workshops for all sites.



Want to get involved?

All the information about both sites can be found at www.lancaster.gov.uk/ofc and if you wish to sign up for future updates and volunteering opportunities please visit our Keep Connected site keepconnected.lancaster.gov.uk/ofc

This project is funded by Defra as part of the £150 million Flood and Coastal Resilience Innovation Programme which is managed by the Environment Agency to develop and test new approaches to resilience tailored to local communities.



Flood and coastal resilience innovation programme

Part of the £200m
Flood and coastal innovation programmes

Morecambe Bay
Partnership

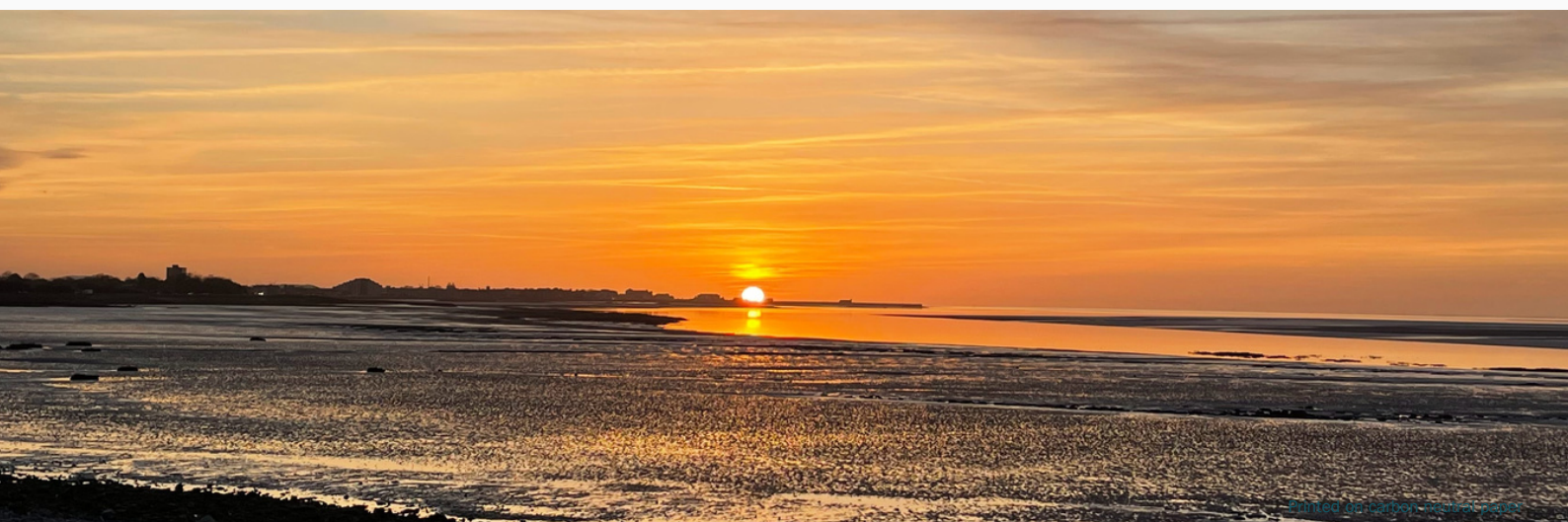
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