

Stronger Shores Annual Conference

Coastal Innovation: Bridging the Gap from Data to Delivery

29th April 2025

Sea Hotel, South Shields



Introduction

Stronger Shores is a partnership project led by South Tyneside Council and funded by Defra as part of the £200 million Flood and Coastal Innovation Programmes which are managed by the Environment Agency. The programmes will drive innovation in flood and coastal resilience and adaptation to a changing climate.

For a second year, Stronger Shores brought together a wide range of people including Flood and Coastal Erosion Risk Management (FCERM) practitioners, researchers, specialists, and decision makers for their annual conference, which this year was held at the Sea Hotel on the beautiful South Shields seafront.

The conference provided updates on the amazing work carried out so far throughout the project, as well as enabling views and ideas to be gathered from a wide range of people involved in the restoration and management of our coast. This will all help to improve and guide the direction of the project.

We were joined once more by wildlife and environment champion Trai Anfield who did a sterling job facilitating the conference.

Project Delivery Partners are:

South Tyneside Council

North Sea Wildlife Trusts

Tees Rivers Trust

The Wild Oysters Project (The Zoological Society of London and Groundwork North East & Cumbria)

University of Newcastle upon Tyne

University of Plymouth

Technical support is provided by Arup and ABPmer



Presentations

The morning of the conference featured a range of informative presentations from project partners and stakeholders, from setting the scene within the context of the national Flood and Coastal Innovation Programme, to project delivery partners providing an overview of their work.

The presentations were provided by:

- Rachael Hill, National Coastal Resilience Manager, Environment Agency
- Matthew Ashley, Researcher, Centre for Marine and Coastal Policy Research and Marine Conservation Research Group, University of Plymouth
- Ashleigh Tinlin-Mackenzie, Marine Technology Lead, and Joe Harper, Marine Restoration and Engagement Lead, Wild Oysters Project
- Martina Bristow, Stronger Shores Seagrass & Seaweed Research Officer, Durham Wildlife Trust
- Fabrice Stephenson, NUAcT Fellow and Vice Chair – Marine theme, IUCN World Commission on Protected Areas, and Paddy Eskuche-Keith, Research Associate, both Newcastle University
- Judy Power, Project Manager for the Coastal and Estuaries team at Tees Rivers Trust
- Emily Ross, Stronger Shores Project Delivery Officer at South Tyneside Council
- Blair Watson, Stronger Shores Marine Engagement Officer at Durham Wildlife Trust







Panel Discussions

A panel comprising of Flood and Coastal Erosion Risk Management professionals and academic experts was brought together for a discussion on marine Nature-based solutions for coastal resilience and erosion risk management. Panel members were:

- Will Manning, Senior Advisor Habitat Compensation and Restoration Programme, Environment Agency
- Sian Rees. Associate Professor in Social-Ecological Systems Research, University of Plymouth
- Michelle Hogg, Service Lead, Environmental Protection, South Tyneside Council
- Steph Hepworth, Project Manager, Nature North
- Alex Nicholson, Associate, Arup

The session opened with a question to each panel member about how data enables them to perform their job effectively, five questions were asked to stimulate debate and address the challenges and opportunities of embedding research and academic data into project delivery. These were:

1. How can data from innovative research like Stronger Shores be used to influence decision making in coastal management
2. What can the coastal sector learn from others that have successfully made the transition from innovation to business as usual
3. How can complex scientific data be communicated to non-technical audiences to make it relevant
4. What happens if data doesn't provide the evidence needed to influence decision making
5. What one thing could Stronger Shores do over the next couple of years to bridge the gap from data to delivery

A follow up question was asked from the audience concerning how do we know when 'enough is enough'. This was in relation to continual research and data collection and being able to use the data to inform decision making.





Roundtable Discussions

The roundtable discussion sessions allowed attendees to discuss and provide valuable input and insight into many topics relevant to the project and its aims, drawing from the extensive range of backgrounds and experience of people attending the conference. Topics this year were varied with sessions covering the project toolkit, drivers for selecting restoration locations, habitat restoration design, natural capital appraisals, a wider vision for the North East's coast and estuaries, and connecting communities with the marine space.

Attendees each attended two sessions for which they felt most interested in or most relevant, with each lasting 30 minutes.

This bringing together of people and ideas provided valuable insights which will help the shape the future of Stronger Shores.

Table 1 - The Blooming Platypus and South Tyneside Council

Workshop Title: Creating the Stronger Shores Toolkit

Discussion: The outputs of the toolkit were discussed through this roundtable discussion, as well as what its aims should be. Through this, it was identified that the tagline for Stronger Shores as a whole ('protect our shores with the power of nature') may be promising too much when compared to what can be realistically delivered given the timescales allowed, therefore expectations should be carefully managed. It was felt that the work carried out through Stronger Shores such as new models, knowledge and trials would work towards this goal, creating evidence that will be crucial to the implementation of nature-based solutions, but that this tagline may be setting an expectation of total protection with no hard defences being used.

It was also identified that for the toolkit to be useful and adopted for use, it should include tools to assist in the implementation of restoration and reintroduction schemes, including a risk register, action plans and cost-benefit tools, with these tools being tailored to who the end users will be. From these, cost-benefit was picked out multiple times as being of particular importance in ensuring the toolkit is useful and that it should include elements in addition to estimated costs and benefits such as how to drive the cost of schemes down and the potential scalability of projects from a cost perspective.

Going forward, it was identified that it would be useful to create a next-steps plan for a potential future iteration of the Stronger Shores project, as well as the creation of a roadmap for the Environment Agency outlining how to embed Stronger Shores learning and to fill identified knowledge gaps.

Table 2 – University of Plymouth

Workshop Title: Capturing benefits from habitat restoration and protection within Flood and Coastal Erosion Risk Management projects

Discussion:

This roundtable discussion explored the ecosystem service benefits that can be gained from the implementation of nature-based-solutions, and the levels of benefit that can be provided locally and further afield. This was done with the aim of ensuring that a more complete social value assessment can be carried out during the appraisal stage of projects carried out by risk management authorities or others.

An overview of the natural capital and ecosystem services work was provided. Participants were then asked to provide a list of the most important benefits a Stronger Shores restoration pilot site could provide, and then to score them based on their perceived benefit to society. These benefits were then combined into themes relating to the Services or Benefits section of the current ‘Enabling a Natural Capital Approach’ (ENCA) Natural Capital Assessment Template.

The benefit with the highest average score was Biodiversity, with an average score of 2.46 (1 being low, 2 medium, and 3 being highly beneficial), with 12 of the 22 participants suggesting this. It was suggested that an increase in biodiversity is important to underpin other benefits such as nature recovery and flow of benefits, to fisheries and wild food harvesting. In relation to this, the possibility of double-counting of benefits was identified, with it being raised that many of these benefits are closely linked.

Other highly scored benefits include Recreation (an average score of 2.4 from 8 people), Food Related Benefits (an average score of 2.17 from 13 people), and Flood Protection and Reduction of Coastal Erosion (an average score of 2.09 from 22 people).

Benefits that did not fit into the ENCA Natural Capital Assessment Template were brought up by participants, there is currently no established method to assign an economic value to benefits such as increasing community pride in an area. As these benefits are not assessed, this may lead to an overall underestimating of benefits. Also, combining benefits, especially those less tangible through the ENCA template was found to be challenging, suggesting there may be a need to expand the ENCA categories, include sub-categories, or introduce new assessment methods.



Table 3 - Tees Rivers Trust

Workshop Title: Drivers for selecting restoration locations – strategic vs natural

Discussion:

This roundtable session discussed the factors around site selection for habitat restoration or reintroduction, such as the potential effectiveness from a strategic point of view, and where a particular habitat would be more naturally or historically be found.

One of the factors identified as impacting site selection was availability of funding and the need to comply with funding timescales and produce set deliverables. Funding is usually provided to deliver in a short timescale, which may impact the thoroughness of the appraisal process, or lead to the selection of sites for which work can start early but may not provide the most benefits. Also, some benefits, especially ecosystem related benefits may take longer to materialise which may impact which funding is applied for.

Another factor which may affect site selection is the licences and consents needed for a site. Sites may require fishing and aquaculture licences, landowner consents, Marine Management Organisation consents, or land access arrangements.

As for site conditions and suitability, it was noted that a very limited number of sites are perfect for restoration. At most sites, there are challenges to overcome in order to successfully restore habitats. Up to date data should be used to identify suitable sites, considering pollution and nutrients, social factors, ecosystem pressures and the interactions of a restored site with local receptors. This data may come from sources such as the Environment Agency, or from local communities using local knowledge. Participants identified that a compromise of factors would usually need to be made, where sites may be better according to some metrics but worse on others, and a balance between these would need to be established.

Table 4 - Wild Oysters Project

Workshop Title: Artificial Reef Structures for Oyster Restoration

Discussion:

This session provided an opportunity for conference attendees to explore the design of an artificial reef. Artificial structures will be deployed off the coast between South Tyneside and Sunderland to aid in establishing a new oyster reef. Oyster attachment, cube placement and cube surfaces were discussed using small-scale model cubes, with workshop attendees free to arrange these in a structure they felt was most appropriate, and annotate diagrams of the reef cubes to explain their reasoning.

The layout of model cubes ranged from closely packed to scattered arrangements. Participants included suggestions of some larger gaps to allow for the oyster reef to expand and also emphasised control areas where the success of the restoration can be quantified.

The suggestions relating to the cube surface showed a consensus towards a varied and textured surface to encourage a variety of species to attach on and increase biodiversity. There were also suggestions of using community engagement to design the surface of the cubes, possibly including oyster shell designs being included the pattern.

As for the attachment and placement of oysters onto the cubes, participants suggested including both adult oysters and juvenile spat on the cubes. As the cubes contain holes through each face though the whole structure, it was suggested to use this internal space to hold loose oysters or juveniles on culch to address the need for predator deterrence and protection, increasing the change of successful restoration.

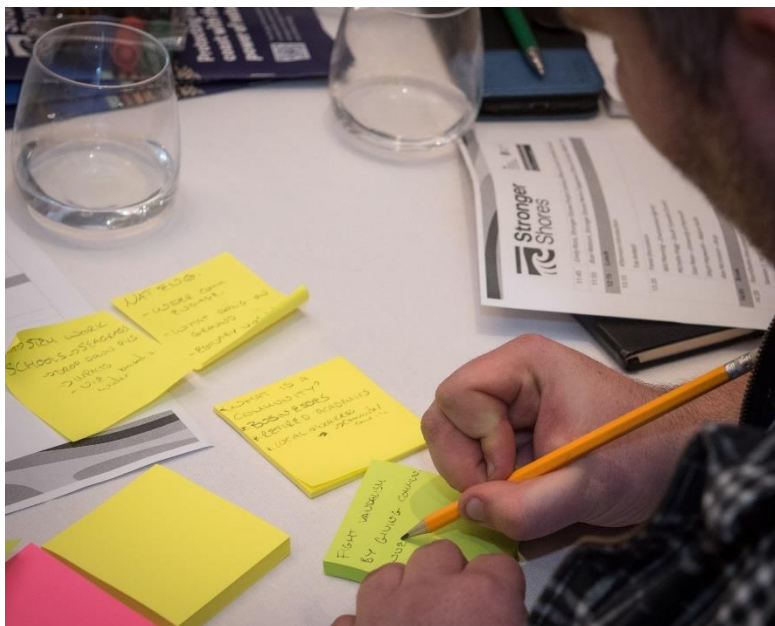


Table 5 - Nature North

Workshop Title: Testing the vision for Nature North's Coasts and Estuaries Vision

Discussion:

This session introduced Nature North's vision for Northern Coasts and Estuaries and attendees were able to present views on the supporting vision statement with reference to local context and priorities. The ambition of Nature North is to create a pipeline of high quality, investable projects for the north of England, which this vision will help achieve.

The proposed vision shared with participants was:

The North's world class coastline and estuaries are:

richer in nature,

more adaptable to climate change,

and a better place to live, play, work and invest.

Feedback received on this included the need to highlight specific aims within the vision such as increasing community action, increasing partnership working or emphasising increasing people's connection and access to nature. The incorporation of investment was also suggested to be included in addition to acknowledging the importance of resilience to climate related pressures. The aim of this vision was also considered, with comments asking whether nature recovery was the main driver, or one of several aims to be achieved.

The supporting statements were also discussed - a list of statements that define the challenges faced towards coastal nature recovery in the region. These were broadly agreed upon, with additional statements suggested that will be passed on to the Northern Coasts and Estuaries co-ordinating group to shape the vision going forward.

If you are interested providing feedback on the proposed vision or want to contribute to the group in any other way, please get in touch with stefan.ivanovic@rspb.org.uk.

Table 6 - The Wildlife Trusts

Workshop Title: Connecting Communities across the North East with the marine space

Discussion:

This roundtable discussed what a more cohesive engagement strategy could look like for the North East. Stronger Shores brings together multiple partners, but further partnerships have been built through engagement work. This session explored how organisations across the North East can work more closely to harmonise our engagement work to create a more informed society that champions marine protection and restoration.

The session facilitated the identification and discussion of key stakeholder groups commonly engaged, including educational institutions, the fishing sector, commercial and industrial entities, as well as the general public and local communities. These were engaged with through a variety of methods such as events, school visits, conferences, art, volunteering and online content, with a variety of aims such as improving ocean literacy, collecting data or sharing knowledge. From this discussion questions were raised about the definition of a community, however this was not decided upon within this session.

It was acknowledged that there are some barriers to engagement which need to be overcome. One of these was the ability to reach out to intended target audiences with advertisement of events and activities limited by the reach of the project itself. Cost implications were also identified, as well as finding times which don't overlap with other events or that can attract a varied audience. Survey fatigue could also be felt by participants of engagement activities where the aim of the activity is to collect information, however it was felt this can be partially overcome by cross-organisation partnership working.

Through this roundtable it was clear that there was not enough time to fully delve into the nuances of a more cohesive level of marine engagement across the North East, however the issues and ideas raised can start discussions going forward into creating a more cohesive environment across organisations.



Summary of learning outcomes

Key learning points were:

1. Interest in the project and wider issues concerning marine Nature-based Solutions remains strong. This was reflected in the attendance of 93 people from across the private, public, and charitable sectors. There was also an increase in attendance from outside of the region, showing that the profile of the project has increased over the past year. There was a fantastic energy in the room with some 'side meetings' as delegates took the opportunity to meet face to face on joint issues and areas of work.
2. There is no definitive answer to the conference theme 'Coastal Innovation: Bridging the Gap from Data to Delivery', with the consensus being that this is subjective. This needs to be driven by policy makers and investors, their level of confidence in the data, and appetite for risk and uncertainty. A strong message was promoted by the Environment Agency and South Tyneside Council that data needs to be shared on an ongoing basis by and between publicly funded projects such as Stronger Shores so collective learning can be embedded into future decisions and investments.
3. Data means different things to different stakeholders, and the format that data is presented must be tailored to the audience. The requirements of the stakeholder needs to be considered so that the relevant data and messaging is used. It was suggested that personas are created for each stakeholder to help with communicating technical information. Creative means of communicating science and data can be very impactful.
4. There is a gap in place-based data to back widely upheld views that nature benefits society in a specific location. Evidencing and quantifying the cost-benefit of Nature-based Solutions, particularly sub-tidal habitats for coastal resilience, requires continued investment, ensuring that the data collected is useful, and that the data is being shared and communicated.
5. The need to change the perception of project failure came through strongly, with one contributor reminding the conference attendees that "failure is success in disguise waiting to happen". This is particularly relevant in the marine restoration and coastal management sectors, where projects are typically at the early stages of innovation and intervention success will be low. FCERM benefits from interventions may not be realised until many years later, so there needs to be an appetite for risk and a commitment to longer term investment.

Conclusion and Next Steps

An annual conference continues to be an effective way of sharing Stronger Shores progress and bringing stakeholders together to address issues relevant to the project and wider Flood and Coastal Innovation programme. The day is not expected to find definitive answers to questions, but allow for sharing of ideas, opinions, and to make and develop contacts. This is especially important for Stronger Shores as the project bridges the natural restoration and more traditional coastal management sectors.

It is the intention to repeat this event in spring 2026, with a suggested focus being on the project Toolkit.

This report will be made available on the Stronger Shores website along with presentations from the day and a series of short films. A link to this will be shared via Stronger Shores social media channels.

Acknowledgements

We would like to thank everyone that attended, presented, facilitated, and contributed to this year's conference and made it a success. This includes Trai Anfield, Gil Johnston, and the crew at the Sea Hotel.

A special thank you goes to Bethany Handson at South Tyneside Council for organising the event and ensuring the day went smoothly.

We look forward to sharing project progress and having more stimulating discussions at next year's conference.

The Stronger Shores team





Department
for Environment
Food & Rural Affairs



Environment
Agency

Flood and coastal resilience innovation programme

Part of the £200m
Flood and coastal innovation programmes



Stronger Shores