Stronger Shores Annual Conference

Beyond Concrete: Nature Based Solutions for Coastal Erosion Risk Management

21st May 2024

Spanish City, Whitley Bay

Stronger Shores

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.

The Stronger Shores project brought delivery partners, Flood and Coastal Erosion Risk Management (FCERM) practitioners, researchers, specialists, and decision makers for its first annual conference on 21st May 2024. The day was packed with learning and knowledge sharing with over 100 attending the iconic Spanish City in Whitley Bay.

Facilitated by wildlife and environment champion Trai Anfield, this event allowed for the sharing of exciting progress that has occurred throughout the project on learning, restoration and innovation. The conference also provided an opportunity to widen the scope of people to gather views and knowledge from beyond delivery partners, to people such as those in the flood and coastal sector, other local authorities, conservation and restoration organisations, and national regulatory bodies. These conversations and inputs will help improve and guide the direction of the project.

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 APBMer.

Presentations

The day included a range of enjoyable and informative presentations delivered by stakeholders and project delivery partners. This helped provide context on the national FCRIP programme, delivery partner progress and priorities, and an overview of what the Stronger Shores toolkit will be. The presentations were:

- Andy Eden, Flood & Coastal Risk Manager & Programme Executive, National Adaptation & Resilience, Environment Agency
- Matthew Ashley, Centre for Marine and Coastal Policy Research and Marine Conservation Research Group, University of Plymouth
- Celine Gamble, Project Manager for Estuaries & Wetlands Conservation at the Zoological Society of London, and Joe Harper, Groundwork North East & Cumbria – Wild Oysters Project
- Martina Bristow, Stronger Shores Seagrass & Seaweed Research Officer, Durham Wildlife Trust.
- Jack Duffy, Robin Mastin-Wynne, Alex Wickenden. Newcastle University PhD students.
- Judy Power, Project Manager for the Coastal and Estuaries team at Tees Rivers Trust
- Blair Watson, Stronger Shores Marine Engagement Officer at Durham Wildlife Trust, and Emily Ross, Stronger Shores Project Delivery Officer at South Tyneside Council
- Jonathan Campbell, Associate in Environment & Sustainability at Arup.

The presentations are available on the Stronger Shores website.


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Panel Discussions

A panel comprising of FCERM 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:

Andy Eden, Flood & Coastal Innovation Programmes Executive – Environment Agency

Alex Scaife, Flood Resilience Engagement Advisor – Environment Agency

Nick Cooper, Technical Director – Royal Haskoning DHV

Professor Pip Moore, Deputy Head of School, Director of Education and Professor of Marine Science - Newcastle University

Jeremy Pickles, Principal Sustainable Communities and Coast Officer - East Riding of Yorkshire Council and the North-East Coastal Group

During the panel discussion, six questions were asked to stimulate debate and address the challenges and opportunities of nature based solutions in the marine and coastal environment.

1. *What can, and can't, marine habitats, specifically oysters, kelp, seagrass, do to help with coastal resilience and protection? What are the limitations? Do we need to cover wider benefits to biodiversity and communities?*
2. *How can communities get involved at a local level to support coastal initiatives including nature-based solutions, with other challenges such as the cost of living?*
3. *Will coastal engineers get on board with nature-based solutions; how do we win them over? Is there a compromise?*
4. *What else should Stronger Shores be doing to build an evidence base for nature-based solutions in Flood and Coastal Erosion Risk Management?*
5. *Is it really worth protecting and restoring these habitats when we are facing significant impacts of the climate crisis, that a patch of seagrass, for example, couldn't stop (think Storm Babet etc)?*
6. *What needs to change with licensing, policy, and funding to be able to implement the learning from Stronger Shores? How is learning being shared?*


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Andy Eden - Environment Agency
Nick Cooper - Royal Haskoning DHV
Alex Sc - Environment Agency

Roundtable Discussions

The roundtable discussions took the form of two 30 minute sessions spread across 10 tables, providing attendees with the opportunity to discuss a variety of topics relevant to marine nature based solutions for FCERM, such as regulation, funding, and engagement. Each of the table discussions were led by an organisation involved in the Stronger Shores project, combining their own knowledge and expertise with those attending the discussions, enabling some very insightful discussions.

Tables 1 and 2 - Arup - Stronger Shores Toolkit

Workshop Title:

What do Risk Management Authorities need from the Stronger Shores Toolkit to be able to confidently consider Nature Based Solutions in Flood and Coastal Erosion Risk Management?

Discussion:

Through these discussions, it was clear that there was a hope that the toolkit would assist in the funding and delivery of nature based solutions and restoration in the future. Towards the aim of driving down costs and driving up efficiencies, there were suggestions that the toolkit may involve templates for key project stages, for example, consenting templates and guidance, risk registers, and delivery costs. The addition of guidance on costings, risks, uncertainty, and modelling methods were also discussed.

Some challenges were also identified, such as whether effectiveness of habitats should be evaluated during mean or extreme conditions, if policy backup is needed, and next steps and how to ensure legacy benefits beyond the lifetime of the project.

Table 3 – University of Plymouth - Data and the Stronger Shores Natural Capital Asset and Risk Register

Workshop Title: Access to appropriate data is critical to the natural capital approach, informing decision making and enabling appropriate valuation and planning. The paucity of marine data compared to that available in the terrestrial environment is well documented and relevant data is often siloed or undiscoverable. Here we will review the data available to the Stronger Shores projects and its accuracy, relevance, limitations, and any gaps.

Discussion:

The roundtable provided the opportunity to increase familiarity of experts from across disciplines with the natural capital approaches applied as part of Stronger Shores. Through the roundtable discussion, the University of Plymouth gathered expert knowledge and opinion on the change in availability and contribution to ecosystem service benefits the nature based solution interventions can provide, within the context of specific Stronger Shores sites.

Discussions with participants and the University of Plymouth showed there was a wide agreement that many data gaps exist within the marine space, pointing out the evidence gaps that need to be filled, especially in relation to the benefits of the habitats and their locations. Many evidence gaps identified are being addressed within the Stronger Shores research and PhDs.

Addressing these gaps would provide a good baseline of what exists currently, and this baseline could then quantify the success of any restoration activities, or improvement or decline. For some locations there is data available such as habitat pressure maps, but the completeness of these maps and how up to date/ relevant they are, was questioned and seen as a source of uncertainty where further surveys would be beneficial.



Table 4 - South Tyneside Council - Stronger Shores the Second - what comes next?

Workshop Title:

Stronger Shores will end in March 2027 unless we put something in place to continue the learning and interventions already started. This roundtable will look at what needs to happen now to make sure Stronger Shores is here to stay.

Discussion:

The legacy of and next steps for Stronger Shores beyond 2027 was discussed. Interest and desire for a continuation of the project in some form was expressed, notably scaling up and building on the current Stronger Shores Project. The importance of engagement and community focus in a hypothetical new project iteration was stressed, engaging with groups such as communities, engineers, policy makers, fishing communities and businesses to gain the most widespread interest possible. Furthermore, there was appetite for the new project to continue to study not only coastal erosion benefits from the habitats, but also other ecosystem services such as biodiversity and carbon capture.

A new and continued project phase would be beneficial in starting to quantify the longer-term benefits of the project as many of the benefits will not be realised until after the project end, beyond 2027. This is seen as an issue inherent with short term funding programmes such as this. Examples of possible long-term benefits include the introduction of funding opportunities (such as blue carbon credits), longer-term reduction in coastal erosion rates, increased biodiversity, and habitat build up in health and size as the habitats 'settle-in' and establish.



Table 5 - Plymouth University - Benefits and Risk – Nature based Solutions and Natural Capital

Workshop Title:

Stronger Shores focuses on the benefits provided by marine and coastal habitats to protect coastlines, nature and communities from flooding and erosion risks. The project aims to monitor and better understand the benefits from nature based solutions: kelp habitats, seagrass beds and native oyster reefs in Flood and Coastal Erosion Risk Management. The roundtable aims to discuss with the group natural capital assets and linked societal benefits.

Discussion:

Through the roundtable, participants talked through the benefits and challenges of implementing nature-based solutions using case studies of specific locations. A main challenge mentioned was the changing of minds for the historical preference for hard engineered solutions in built up, urban areas where the shoreline management plan policy is 'hold the line'. In these locations, instead of this approach, hybrid soft-hard engineered defences are possible and are potentially beneficial, for example using wave attenuation benefits of kelp to increase the lifetime of hard coastal defences.

Furthermore, other benefits were highlighted such as the increase in wildlife, bird watching opportunities, tourism, and climate change associated benefits. However, there were also perceived challenges of people having negative views of the habitats. Discussions identified the importance of Stronger Shores in raising awareness of these benefits, including changing negative perceptions of the habitats. At both sites explored within the roundtable, restoration was recognised by attendees as helping increase the availability of benefits to communities and the local environment.

As for funding, it was noted that as evidence gaps are filled in relation to the benefits of the Stronger Shores habitats and new guidance is released, funding restoration and coastal defence projects should become easier, and funding streams such as blue carbon credits should become available.

Table 6 - Tees Rivers Trust - Restoring nature within regulatory frameworks – striking the right balance

Workshop Title:

Restoration projects go hand in hand with robust regulation, how can we ensure that habitats are protected whilst also enabling restoration to be undertaken? Join us to consider the pressures and opportunities within existing frameworks and partnerships.

Discussion:

Through this discussion, a key theme included pressures resulting from the consenting process. The process was identified as requiring large amounts of staff input and licences were costly. The consenting process had long processing times, provided limited feedback, and there were barriers to engagement with regulatory bodies. It was also felt that ecology was of lower priority than economy, and that a lack of knowledge and evidence on marine habitats was preventing restoration taking place.

A suggested solution to some of these issues was the creation of a 'permit application template' to reduce the time and cost involved in the permit application process. Knowledge and experience sharing was seen as especially important so organisations can help each other through the process. It was suggested that DEFRA bodies could improve regulations, processes, and knowledge. Through this, the aim of the alteration of these processes was suggested, including the creation of a separate process for restoration or nature-based solutions, as the current processes, permissions and licences required are not always tailored for nature based solutions.

Table 7 - North Sea Wildlife Trusts - The value of a map

Workshop Title:

The future of flood and coastal erosion is changing, with both soft and hard engineering part of an integrated response to the climate crisis. This table will explore the messaging and engagement needed so everyone is better prepared and on-board with schemes that include soft and hard solutions.

Discussion:

In this roundtable, participants ran through a board game to understand what different groups of people may value on a coastline. This was found to be a useful prompt for debate and discussion, with discussions moving focus away from the board game. Players seemed to prefer a more realistic, local coastline, possibly making it easier to visualise and consider the issues and possible solutions presented.

Furthermore, an initial discussion about how the players already engage with the coastline and what they value was beneficial for coining ideas for engagement within the project. A community voice method was raised and considered. With a general audience, it was thought that this game would be useful for improving coastal understanding through showcasing various land-sea interfaces, to understand the positions and actions of stakeholders, and to allow participants to think outside the box.


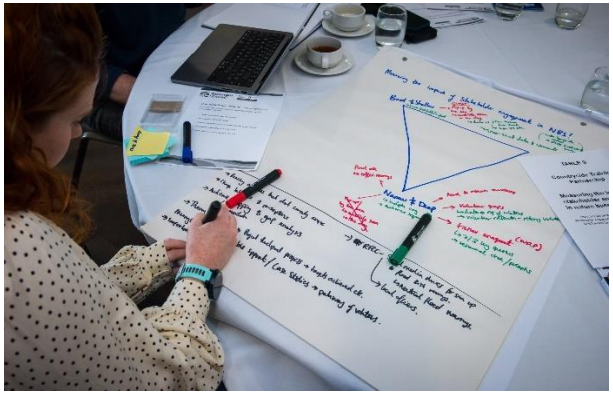


Table 8 - Environment Agency - NIMBY or YIMBY: Do people actually want Nature Based Solutions?

Workshop Title:

The future of flood and coastal erosion is changing, with both soft and hard engineering part of an integrated response to the climate crisis. This table will explore the messaging and engagement needed so everyone is better prepared and on-board with schemes that include soft and hard solutions.

Discussion:

This roundtable discussed the messaging and engagement surrounding nature based solutions. It was found that having a variety of engagement techniques was important, for example; visual aids, demonstrations, interactive resources, digital resources (videos etc), and models with and without nature based solutions. Participants stressed it was important to tailor engagement to the audience to have the largest impact possible, while incorporating easy to remember key facts.

It was also discussed that people tend to be interested in nature, so this can be used as a 'way in' to discuss nature-based solutions, and using case studies can help to show what is possible if these are available. During this dialogue however, it was recognised that due to current lack of evidence, it is important to manage expectations and be clear some sites and methods may not be as effective as hoped.

Table 9 - Countryside Training Partnership - Measuring the impact of stakeholder engagement in nature-based solutions.

Workshop Title:

How can we best evidence the impact of stakeholder engagement in nature-based solutions to influence funding and strategic decision making?

Discussion:

This session discussed how to best evidence the impact of stakeholder engagement. A key theme raised was the difference between carrying out and capturing 'broad and shallow', and 'narrow and deep' engagement. For broad and shallow engagement events (high footfall with many short and shallow conversations), numbers of people spoken to, memorable comments and conversations and simple feedback were seen as important to record. Events given as examples of broad and shallow were talks, large events and festivals, and pop up stalls. Alternatively, for narrow and deep engagement (typically smaller numbers of people with more in depth conversations), perceived levels of individual impacts, changes in perceptions and knowledge levels were seen as valuable information to collect. Examples given of this type of engagement were volunteering events, small events with delivery partners, and smaller events allowing for longer one to one conversations.

It was raised that different types of events would attract different groups of people, for example, an advertised talk may allow for different conversations with different people when compared to a pop-up stall in a seafront location or even if this stall was moved further in land. It is therefore important to carry out a range of activities to gather the most complete evidence of impacts, with delivery teams recording information from each event and acting as the eyes and ears of engagement activities.

Table 10- Environment Agency - Blue Finance: creating a sustainable finance model for coastal nature-based solutions.

Workshop Title:

This table will discuss the growing market for nature-based solutions, and the potential for blended finance models that reflect the multiple benefits that restored marine habitats offer.

Discussion:

In relation to blue finance, one of the main challenges seen towards making this more viable was the setting up and managing of markets. With the creation of the North East Combined Mayoral Authority and the operation of the Tees Valley Combined Authority however, these could be used as opportunities to promote marine nature based solutions markets. In setting up and running these markets, benefits could be stacked and incentivised.

It was also mentioned that the organisation 'Nature North' is developing an investable proposition list to assist with making blue finance investment easier and more widely used.

Concerns raised included that nature may not be suited to being treated as an asset, with management strategies and the capital/ buy costs only able to be financed. If maintenance is not funded, restoration works would be open to degradation over time. To prevent this, it was suggested that asset maintenance funding should be incentivised also.

Funding for monitoring, verification and reporting was seen as required for blue finance to be successful, not just the cost for implementing the works.

Summary of learning outcomes

Key learning points were:

1. The Stronger Shores conference was the first event of its kind in North East England. The significance of bringing together professionals involved in marine restoration and research, coastal protection, and FCERM programme management, under the banner of nature based solutions can not be underestimated.

2. Current and perceived future challenges being faced were discussed, such as people's views on the potential of nature-based solutions in FCERM, funding, current lack of guidance, and regulation pressures such as timescales and costs of consents. It was important that the conference did not shy away from these perceptions and challenges, but instead enabled a space for debate and discussion.

3. Repeatedly mentioned through discussions was the importance of gathering evidence, whether this be for habitat benefits, engagement impact and efficiency, or other learning outcomes. It is hoped that through the Stronger Shores project, evidence data gaps will be filled, so that the delivery of marine restoration and nature-based-solutions may be more deliverable on financial and delivery levels while maximising the benefits for the marine environment and communities.

4. The mixed format of the event worked well, as it allowed time for delivery partner updates and interaction through the roundtables. An experienced and engaged facilitator was essential to keep energy levels high and allow the organising team to focus on the event itself.

5. Being accountable for project progress, especially in research led innovation project where results are expected towards the end of delivery, is difficult. An annual conference ensures that the project delivery team updates stakeholders and is held to account for the spend of public money.

Conclusion and Next Steps

This year's Stronger Shores conference provided a fantastic opportunity to introduce Stronger Shores to a wider audience, encourage discussions and knowledge sharing, and provide insights into the work carried out on the project so far.

It is the intention to repeat this event on an annual basis until 2027, with a change of focus as the project progresses. The focus for the 2025 conference will reflect priorities for the project at that time, in agreement with Delivery Partners.

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, the team at Gardiner Richardson, Gil Johnston, and the crew at Spanish City.

Particular thanks goes to Bethany Handson at South Tyneside Council for her support in organising the event and ensuring all technical glitches on the day were dealt with smoothly.

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


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