

Marine nature-based solutions

April 2025

The Marine Conservation Society is calling on the Welsh Government to

- ✓ Ensure development pressures do not impose on areas where nature-based solutions would thrive, via effective marine spatial planning
- ✓ Outline the best restoration and enhancement opportunities and work with partners, such as the Marine Conservation Society, for effective delivery
- ✓ Incorporate nature-based solutions into present and future planning frameworks, ensuring that (where relevant) nature-based solutions are considered over the default concrete and hard engineering solutions

What are marine nature-based solutions?

Marine nature-based solutions are environmental management approaches that protect the marine environment and its ecosystems whilst helping to address societal problems like climate change and water pollution. Marine nature-based solutions already in use in Wales include **oyster restoration projects and seagrass restoration**.

Through the Natur Am Byth! project, the Marine Conservation Society has been delivering the **Môr project**. We are working in Pembrokeshire, the Llŷn Peninsula and Ynys Môn to protect and recover marine species, including seagrass and native oysters.

What are the benefits of using marine nature-based solutions?

Nature-based solutions provide multiple ecosystem services and can provide more **value** than built infrastructure.

Using marine nature-based solutions is good for **nature, people, and the economy**:

Good for nature

- Marine Biodiversity enhancement and carbon sequestration
 - Habitats like native oyster beds can provide a habitat and refuge for a range of marine life, including juvenile fish, crabs, sea snails and sponges.

- Seagrass habitats also provide a nursery for small fish, and feeding grounds and homes for many marine creatures, including the UK's spiny seahorse and the short snouted seahorse.
- Improved water quality
 - Native oysters can filter water through their gills, which can help to remove pollutants and improve water quality. This can help remove excess nitrogen, and stabilise sediments due to the dense beds and reefs they form.

Good for people

- Potential for jobs in coastal communities and beyond
 - The development and maintenance of nature-based solutions requires a workforce. This can be focused in coastal communities, which typically face higher levels of unemployment, financial uncertainty and deprivation.
 - Around 15-30 jobs are created for every \$1 million USD spent on restoration programmes, six times more than the equivalent investment in oil and gas.
- Provides protection against coastal erosion and extreme weather events
 - Seaweed, particularly kelp, can play a crucial role in protecting our coasts from erosion and flooding. Due to the dense structure of kelp forests, they can act as a buffer to strong waves and currents, helping to prevent erosion and mitigate the effects of storm surges by reducing wave height and energy before it reaches the shore.
 - Seaweed debris can also release nutrients that enhance the growth and stability of sand dunes, which in turn act as another physical barrier to help to absorb wave energy.
 - Biogenic oyster reefs can help to reduce storm surges whilst also sequestering carbon and providing a nursery ground for multiple species.

Good for the Economy

- Improved fisheries production
 - The sustainable development and maintenance of shellfish and seaweed can provide food security, not only by their own consumption but also by improving marine ecosystems for other species.
 - Seaweed can act as a nursery ground for juvenile fish, providing protection from predators and food, and thus increasing their abundance.
 - This ultimately increases stock and economic stability for fishermen and those who rely on seafood for their livelihoods, with abundance equally ensuring that this food source remains accessible.

As an MS, how can you champion marine nature-based solutions?

- Urge the Welsh Government to map and deliver restoration and enhancement opportunities
- Ask for a Committee inquiry on the use of nature-based solutions on any Committees of which you are a member
- Table parliamentary questions, using information from this briefing, to understand further the Welsh Government plans for marine nature-based solutions

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