

Cornwall & the Isles of Scilly

This assessment of **Cornwall and the Isles of Scilly** was commissioned by **Natural England** to provide a case study of how environmental, social, and economic evidence for a place can be brought together to support decision-making for a thriving marine ecosystem and society.

The results of the assessment can be used to help inform decision-making which balances conservation and recovery priorities with the social and economic needs of the community, and to aid in outlining the next steps for management. For example, the assessment could support defining the actions that could arise from the nature recovery priorities identified in Cornwall Council's Local Marine Recovery Framework, or in the development of any future Protected Site Strategy across Cornwall and the Isles of Scilly.

Building the environmental, social, and economic evidence base via a natural capital approach:

Natural capital is a broad term that includes many different components of the living and non-living environment that directly or indirectly provide value and benefits to nature and society.

A marine natural capital approach considers both the intrinsic and monetary value of the environment. It views the marine and coastal ecosystem as a whole and recognises that a healthy functioning ecosystem supports human health, wealth, and wellbeing; and that the economy, society, and marine environment are inextricably linked.

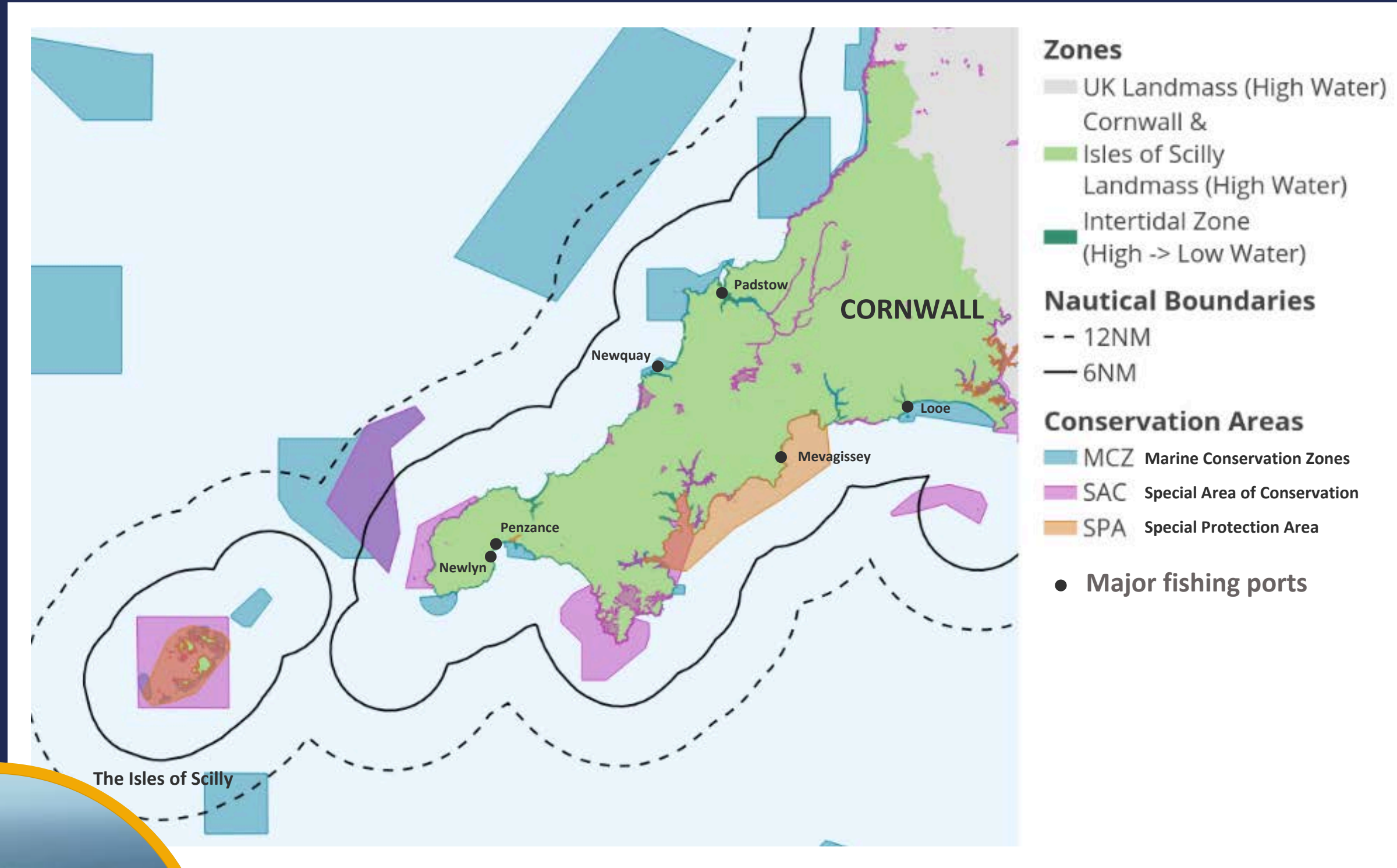
Under the **marine Natural Capital and Ecosystem Assessment (mNCEA)** programme, Natural England has delivered evidence, tools, and guidance to enable the practical use of natural capital approaches in supporting recovery in marine and coastal environments.



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Cornwall & the Isles of Scilly, & its protected areas



Other maps provided within the full Cornwall to the Isles of Scilly case study provide detail of:

- Recreational & cultural assets
- Marine infrastructure
- Threatened & declining habitats
- Pressures: fishing & water-borne pollution



KEY ASPECTS

This assessment considered, and where possible mapped, a wide range of information about the marine area surrounding Cornwall and the Isles of Scilly including fishing harbours and landings, recreation and cultural heritage, and other ports and wider marine industries.

SITE CONTEXT

Where you are setting out from, including the key aspects of the location.



The main Cornish fisheries are inshore fleets using pots, nets, dredges, and mid-water and bottom trawls within 6 nautical miles (nm) of the coastline.

The Cornish fishing ports with the greatest landing value in 2021 include (inflated to 2024 prices):

- **Newlyn:** £37.6 million
- **Padstow:** £2.9 million
- **Mevagissey:** £2 million
- **Penzance:** £2 million
- **Looe:** £1.7 million
- **Newquay:** £1.4 million

According to census data, in Cornwall, 635 people were employed in fishing and aquaculture in 2021. Most of Cornwall's aquaculture activity is found within the Falmouth Bay to St. Austell Bay Special Protection Area (SPA), producing mussels and until recently oysters.





Key recreational spaces & cultural features:

- **Bathing water sites:** 89 designated sites (87 classified as excellent or good)
- **UNESCO World Heritage Sites:** The UNESCO Cornwall & West Devon Mining Landscape designation includes a number of coastal sites. Including St. Just Mining District, St. Agnes Mining District, the Port of Hayle, & Charlestown
- **National Trust:** 1,659 ha of coastal area
- **Heritage coast:** Cornish Coast (268 km) & entirety of the Isles of Scilly (1,640 ha)
- **Walking trails:** South West Coastal Path (460 km) – part of the King Charles III England Coast Path

Key maritime industries include:

- **Ports & docks:** The largest dock is Falmouth, which is recognised as the third deepest natural harbour in the world
- **Ferry routes:** The largest being Penzance to Hugh Town (the Isles of Scilly)
- **Marine energy:** The 2 main sites are Wave Hub & the Falmouth Bay Test Site (FaBTEST)
- **Aggregates & mineral extraction:** No active licensed extraction sites, but 4 sites have been licensed for offshore mineral exploration (lithium & other battery metals)
- **Telecommunications:** 16 subsea fibreoptic cables make land in Cornwall

NATURAL FEATURES: Habitats, species, geology, & heritage

The assessment mapped a number of **natural features**, including the marine habitats, and species within the coastal waters of Cornwall to the Isles of Scilly. Cornish waters are home to a number of marine habitats and species, and the largest and healthiest maerl beds and seagrass meadows in the UK.

NATURAL CAPITAL ASSETS

The presence & extent of natural features including the habitats & species found there.



Key seabed types:

- The Cornish seabed is mainly covered by pebbles, rocks, sand, & gravels
- The seabed is sandy to the west of the Lizard Peninsula & to the East of the Fal towards the Fowey river estuary
- Significant areas of rock & reef are present on the north coast & around the Lizard peninsula

Threatened or declining habitats:

- **Saltmarsh:** Estimates indicate that there is 392 ha of saltmarsh in Cornwall
- **Maerl beds:** Cornwall & the Southwest is nationally important for this rare habitat
- **Seagrass meadows:** Are found within estuaries & bays, including around the Isles of Scilly
- **Ross worm reefs:** Are found around the entire coastline
- **Kelp forests & mussel beds:** Are also found across the region

The full assessment report details trends and ecosystem services for the main sea mammals, freshwater migratory fish, and seabirds in the region.



MARINE MAMMALS



FRESHWATER MIGRATORY FISH



SEABIRDS

Marine mammals:

The Cornwall Wildlife Trust's Seaquest Southwest citizen science project maintains sightings records of marine mammals. This shows that regular visitors to Cornish waters include:

- Minke whale
- Bottlenose dolphin
- Short-beaked common dolphin
- Risso's dolphin
- Atlantic grey seal

Occasional visits by other marine mammals including fin whale, common seal, white-beaked dolphin, and humpback whale have been reported. Other marine megafauna such as leatherback turtle, bluefin tuna, and basking shark have also been observed.

Limitations of sightings record data mean it cannot be used to draw conclusions on population sizes or trends.

Cornish waters are of European importance for rare seabirds:

The Falmouth Bay to St. Austell Bay SPA has been designated for species such as black-throated diver, great northern diver, and Slavonian grebe.

Due to conservation efforts, the population of the once locally extinct chough has been steadily increasing in recent years, now reaching around 200 birds. Other protected seabirds sighted in Cornwall include:

- Baltic & black-backed gull
- Puffin
- Storm petrel

Freshwater migratory fish have been recorded sporadically. These include:

- Atlantic salmon & sea trout
- Allis & Twaite shad
- European eel
- River & sea lamprey

ECOSYSTEM SERVICES

In general, habitats and species can provide a variety of ecosystem services – the benefits humans and wildlife can receive if the ecosystem is in a healthy state. These services include:

- Provision of wild seafood
- Regulating water quality
- Coastal protection
- Climate regulation (through carbon uptake & storage)



Habitats & their level of association to their ecosystem services:

HABITAT	Seafood	Water quality	Coastal protection	Climate regulation
Saltmarsh	HIGH	MEDIUM	HIGH	HIGH
Seagrass	HIGH	MEDIUM	HIGH	LOW
Kelp forests	Insufficient data	HIGH	HIGH	HIGH
Ross worm reefs	HIGH	MEDIUM	HIGH	MEDIUM
Mussel beds	HIGH	Insufficient data	MEDIUM	HIGH
Maerl beds	MEDIUM	Insufficient data	HIGH	MEDIUM

These habitats also act as important nursery and breeding grounds for mobile marine species, support recreation and tourism, and are critical seascapes, but there is less information available on these ecosystem services than those noted above.

VALUE FROM NATURE

Available information on the economic value of the benefits provided by nature within Cornwall and the Isles of Scilly is limited, but includes:

VALUATION

The monetary & non-monetary benefits that can flow from natural features & their associated ecosystem services to people & the surrounding environment.

The value of seafood (landed value in 2023; 2024 prices):

- **Pelagic fish:** £0.8 million
- **Demersal fish:** £4 million
- **Shellfish:** £3.2 million

The annual value of carbon sequestration (2024 prices):

- **Saltmarsh £176,500:** 392 ha sequesters 1,200 tonnes of carbon annually
- **Sand £17.6 million:** 424,252 ha sequesters 123,000 tonnes of carbon annually
- **Mud £105,100:** 1,672 ha sequesters 750 tonnes of carbon annually

The value of recreation & tourism in Cornwall & the South West:

- In 2012 it was estimated that visitors using the **South West Coast Path** (part of the King Charles III England Coastal Path) spent around **£436 million** (approximately £600 million in 2024 prices)
- Between 2021-2023 **11 million leisure visits to Cornwall** were valued at **£186 million annually**
- **Surfing** is valued at **£153 million annually**

Beyond economic value, other metrics reflect the importance of the ecosystem services and benefits:

- **Cornwall and the Isles of Scilly contain a third of all heritage coasts in England.** All of the Isles of Scilly and around 40% of the Cornish coastline is designated as heritage coast to conserve the best stretches of undeveloped coast in England
- **Seafood – 14% of the total fish caught by the under 10m fleet in England comes from Cornish fishermen**

“Fishing is important for two reasons, obviously it creates employment but it’s part of the social fabric here really.” – Cornish fisherman





SENSE OF PLACE

PERSONAL & CULTURAL IDENTITY

SOCIAL RELATIONS

CARE & STEWARDSHIP

Social and cultural values are often particularly difficult to monetise. They can be captured through participatory research, which can generate qualitative data (such as quotes) to express what people think is important and why.

Cornish social & cultural values:

Sense of place:

“I’m 100% Cornish, it flows through my veins. I’m fully rooted in the sea and the land.”

Aesthetic values:

“When you look out there, and you see how beautiful it is, it’s hard not to just want to be here.”

- **Personal & cultural identity:** Feeling a total connection to the sea
- **Wellbeing & therapeutic values:** Positive emotional responses to being in the area, livelihoods reliant on the sea, people in the fishing community looking after each other
- **Social relations:** Sharing a beautiful place with local people & visitors, passing knowledge to the next generation
- **Care & stewardship:** Taking responsibility for cleaning up the beach & encouraging others to do so

CONDITION & PRESSURES

The wide range of uses of the sea can put pressure on the natural features found within Cornish waters. This affects their condition and their ability to support ecosystem functioning and ultimately deliver services and benefits to society.

Pressures include:

- **Commercial fishing**
- **Noise & pollution**
- **Recreation & tourism**
- **Shipping, energy, & infrastructure**

Research is ongoing into pressures across Cornish waters. What is currently available focuses on **commercial fishing, pollution, noise, and recreation.**

CONDITION

The condition of the environment & its natural features, & the main pressures they face.

Commercial fishing:

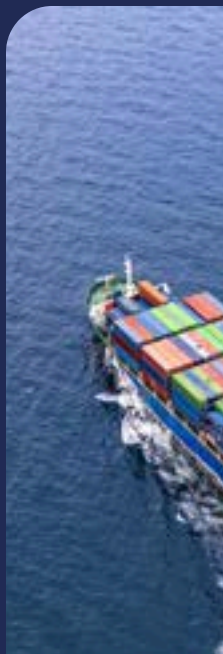
Cornish waters are home to ecologically important – but threatened – habitats including ross worm reefs, maerl beds, kelp forests, and oyster beds. High impact fishing activities pose a threat to the recovery of these habitats. The extent of these pressures is difficult to quantify due to a lack of data.

Beyond impacts to the seabed, fishing pressure can also impact species biodiversity via intended and unintended catch (bycatch), the emission of greenhouse gases, and via fisheries related marine litter.

Pollution:

Throughout the year, combined stormwater overflows and other discharges of nutrients and chemicals occur directly into coastal waters and into rivers that drain into them. South West Water, Cornwall's primary water provider, was ranked the worst company in the country (out of 9) for number of pollution incidents, with 194 actual incidents in 2023.

Around 98% of bathing sites in Cornwall reached at least a 'good' standard, with the exceptions being Par Sands (classified as Sufficient in 2023 and 2024) and Porthluney (classified as Poor in 2023 and 2024). Significant further work is required to understand how the species and habitats of the coastline are impacted by the frequency, timing, volume, and category of the pollution.



Marine noise:

Marine noise occurs from a range of sources including impulsive noise (e.g. from piling, seismic testing, and explosives) and high-power sonar (either from military use or acoustic surveys). Research into the impacts of marine noise on a range of species including marine mammals, sharks, skates, rays, and fish is ongoing.

Recreation & tourism:

Recent reports indicate that coastal users/walkers were the one of the top causes of disturbance for marine wildlife during 2014-20, followed by tripper boats and paddle sports. Human disturbance can cause a change in wildlife behaviour, and can impact their ability to rest, feed, and breed - all of which affects their survival.



WHAT DOES IT ALL ADD UP TO?

The results of the assessment can be used to understand the environmental, social, and economic trade-offs that need to be considered by management decisions. The assessment can also provide an evidence base to help decision-makers develop marine nature recovery strategies which enhance the benefits derived from our seas, and to inform next steps towards a thriving marine environment for the benefit of all.

View the complete [Cornwall and the Isles of Scilly](#) case study to explore the full assessment details.



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