Blue Carbon
is carbon that is captured and stored in habitats and species living in and around our coastline and sea, like saltmarsh, seagrass, maerl and kelp. It is a vital tool in stabilising climate change.

Natural Capital
is the species, habitats and ecosystems in our environment which are important to us as people, such as for food, flood defence, and climate mitigation, as well as the abundance of biodiversity it supports.

Blue Natural Capital Project

Understanding and investing in Cornwall's Blue Carbon

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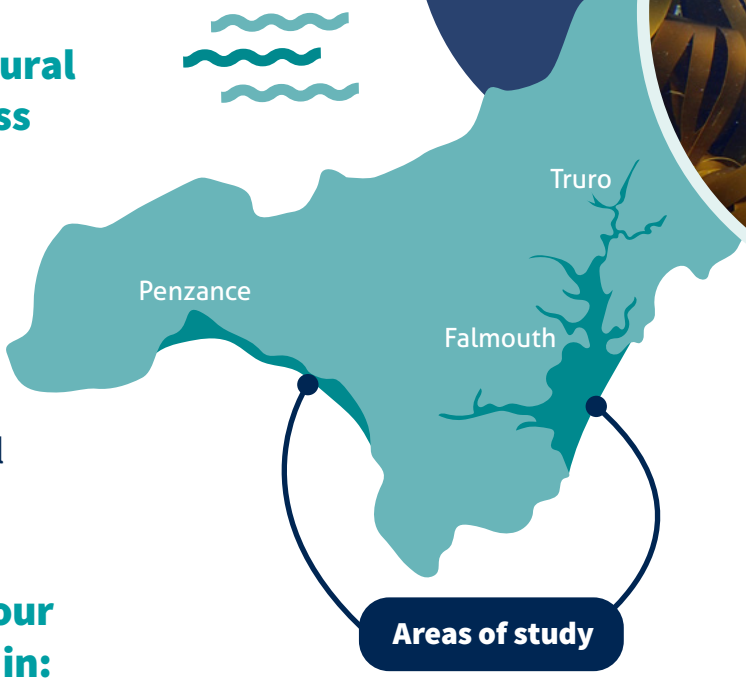
Cornwall Council's Blue Natural Capital Project, funded by the Natural Environment Investment Readiness Fund (NEIRF) has expanded previously limited knowledge in Cornwall to provide a clearer understanding of blue carbon habitat extent and health. They have created a baseline of evidence to inform options to unlock future private funding for natural capital in the county and beyond.



Through collaborative work with our partners, the project has resulted in:

Baselining

Undertaken surveys and analysis to understand the amount of carbon stored within kelp, maerl, saltmarsh and seagrass in two important Cornish coastal locations - Fal and Helford Estuary, and Mounts Bay.

Modelling

Modelled the potential for recovery of these blue carbon habitats, plus completed Natural Capital and ecosystem service risk assessments, at the two key sites.

Investing

Informed the development of options for increasing investment in the marine environment in Cornwall using the knowledge created through the results of the baseline and modelling research.

Ecosystem services are processes provided by the natural environment that benefit people, such as flood defence or food provision. Blue carbon habitats provide multiple benefits and 'services' in addition to carbon storage.

Research highlights

A **new seagrass bed** was found in **Mounts Bay**, covering

290 hectares

and spanning

5 kilometers

One hectare is equal to one rugby pitch!

The **Fal and Helford** supports an astounding

Over 1,000 hectares of maerl

making it **a key UK site** for this **irreplaceable blue carbon habitat.**

The live maerl in the Fal Estuary was also **rich in organic carbon,** supporting the theory that live maerl beds can potentially **store large quantities of blue carbon** for thousands of years.

Risks

A substantial area of **saltmarsh** -

26 hectares

- exists **outside** of the **Fal and Helford Special Area of Conservation** (SAC) boundary.

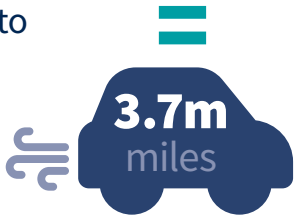
Excess nutrient discharge, recreational boating and reduced water clarity are the greatest risks to the future health and functioning of these habitats in Cornwall.

This needs protection for its **combined blue carbon value** and future pressure from **predicted sea level rise.**

The live **maerl habitats** across the **Fal & Helford Estuaries SAC absorb** an estimated

841 tonnes of CO2

each year - equal to about **3.7million petrol car miles**.



This has a present value of

£7,58 million over 50 years.

Due to the hectarage/broad coverage/amount of maerl **the uptake of carbon is higher overall for this habitat** compared to the other blue carbon habitats studied, even seagrass.

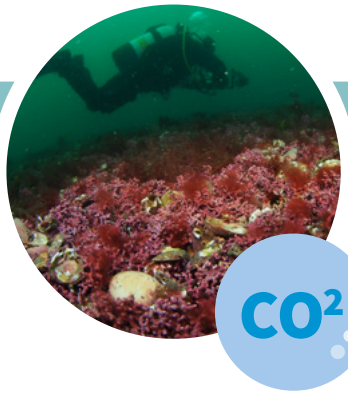
Although setting up **a formal biodiversity or ecosystem service credit scheme in Cornwall** in the immediate future may not be possible due to the need for further science, it is still **possible to gain investment in projects now** through pathways such as **philanthropic investment.**

Moving forwards

The information created by the project will help:

1

Direct the next stages of blue carbon research, such as **considering whole ecosystem carbon values** (rather than just individual habitats) due to the complex cycling of carbon in the marine environment.



2

Support the development of national blue carbon policy and processes, such as emerging **Blue Carbon Codes** and **Marine Net Gain.**

3

LOCAL INVESTMENT IN NATURE CORNWALL

Inform options for private investment in our marine environment via initiatives like **Local Investment in Nature - Cornwall (LINC)** which will support natural capital projects to engage with funders, such as developer and businesses.

4

Guide new local projects to restore and **increase areas of blue carbon habitats**, such as **no anchor zones.**

For more information on Cornwall Council's Blue Carbon work, and to download the reports, please visit Blue Carbon | Let's Talk Cornwall

Delivered in partnership with

Environment Agency

Falmouth Harbour — UK's Atlantic gateway.

Natural Environment Investment Readiness Fund

Fal & Helford Marine Protected Area

Natural Capital Solutions

University of Exeter

If you would like this information in another format or language please contact us:

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Photos by Matt Slater, Cornwall Wildlife Trust

Feb 2024 JN53890

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