

Considering blue carbon in marine policy

Wildlife Trusts parliamentary briefing: May 2026

Executive summary

- The seabed around the UK stores significant quantities of carbon - and could store much more.
- There is however a gap in policy, meaning that carbon stored on the seabed is not considered in planning decisions, leading to unmitigated harm to carbon stores from marine development.
- This gap is likely to result in the new wave of offshore wind in UK seas releasing large amounts of carbon from seabed disturbance.
- The Wildlife Trusts are calling for seabed impacts to be considered in Greenhouse Gas Assessments for marine development, to allow for these impacts to be measured and mitigated.
- This would mean that the impacts of offshore wind and other developments on natural carbon storage at sea is minimised.

Blue carbon

The mud at the bottom of the sea contains an often-overlooked element – huge amounts of stored carbon. Plankton and other marine organisms absorb carbon over their lifecycle and then drift on death to the seabed. Over millennia the carbon from billions upon billions of marine animals has been absorbed by marine sediment, creating ‘blue carbon’.

In 2024, The Wildlife Trusts, RSPB and WWF, commissioned an inventory of UK blue carbon and confirmed that seas around the UK and Isle of Man contain globally significant sedimentary carbon stocks, with 240 million tonnes of organic carbon stored in just the top 10 centimetres of seabed sediment.¹ The blue carbon inventory also estimated that up to 13 million tonnes of carbon could be added annually to sediment stores, if marine habitats are left alone. This compares to UK forests accumulating 4.8 million tonnes of carbon per year.

This creates a policy imperative to ensure blue carbon stores remain intact, and continue to grow, to contribute to net zero efforts.

The blue carbon policy gap

Policy has not kept up with the growing awareness of blue carbon. As marine activity increases in our seas, limited policy mechanisms exist to prevent damage to blue carbon stocks. Blue carbon has no protection within UK planning, consenting or carbon accounting frameworks. Even where carbon-rich habitats are located within Marine Protected Areas, carbon storage itself is not assessed as a feature of condition or integrity.

This policy gap is likely to result in diminished blue carbon, particularly in the context of planned increases in offshore wind in UK seas. Offshore wind generation in UK waters is due to expand from

¹ Blue carbon [reports](#), 2024

~17GW of capacity in 2026 to 50GW by 2030, expansion that will see significant impacts on the seabed. Offshore wind requires piling, to hammer wind turbines into position, and extensive cable-laying, to transport generated electricity. Without mitigation, offshore wind and other offshore developments such as interconnector cables will disturb seabed sediments on a large scale, releasing blue carbon and reducing capabilities for new blue carbon storage. The Wildlife Trusts have estimated that one interconnector cable project alone, the Eastern Green Link 2 cables (at 505km long), could expose up to 40,400 tonnes of organic carbon molecules. Such impacts could see significant blue carbon lost². Unmitigated disruption on this scale will also hurt marine wildlife and pose a threat to marine ecosystems.

This represents a real risk for net zero efforts. Offshore wind and related marine infrastructure are routinely justified on the basis of carbon reduction, yet emissions arising from seabed disturbance are not included within project-level greenhouse gas assessments. Renewable energy expansion is critically important, but must include mitigation for blue carbon impacts, so as not to undermine the very climate objectives the expansion is intended to deliver.

Filling the gap: Including blue carbon in greenhouse gas assessments

Under the Infrastructure Planning (Environmental Impact Assessments) Act 2017, projects requiring an Environment Impact Assessment are required to publish reports of their effects on the environment resulting from their project. This includes greenhouse gas emissions, resulting in Greenhouse Gas Assessments (GHGA) being produced for all projects for which an EIA is required.

Requiring GHGA's for marine projects to include effects on blue carbon stocks would provide a means by which impacts could be measured and mitigated. Such measurement could be readily achieved. Building on the work of the blue carbon inventory, the seabed could be classified for planning purposes into different carbon-relevant categories dependent on sediment type, depth and sensitivity to disturbance, with a standard blue carbon storage quantity applied to each. This standard quantity could be assessed alongside project plans, such as cable trenching and the depth and duration of this work, to produce an estimate of the amount of blue carbon that could be lost from a project without mitigation. Mitigation measures could be proposed along with the estimate, such as re-routing away from blue carbon hotspots and the deployment of technology to keep more sediment in place.

The scale of blue carbon impacts, and the efficacy of proposed mitigation measures, would then be considered through the GHGA and be a factor in whether the project gains consent. This would be a constructive way to build blue carbon consideration into the marine planning and consenting process, ensuring blue carbon loss does not undermine climate objectives.

Recent developments in policy and case law, notably the expansion of greenhouse gas assessments to include downstream emissions following *Finch v Surrey County Council* and subsequent DESNZ guidance, provides a precedent for such expansion in GHGA. The inclusion from emissions arising from the disturbance of carbon-rich marine sediments can reasonably be viewed as indirect project-related emissions, particularly where seabed disturbance is an integral component of offshore development.

² Using the maximum OC yield for marine sediments proposed in Smeaton *et al.* 2021.

Next steps

The Wildlife Trusts would be very grateful if Parliamentarians could ask DESNZ to consider amending the GHGA process to require consideration of blue carbon impacts, to reduce unintended, climate-harming consequences from new offshore wind and other marine developments.

The Government should also consider broader action to protect blue carbon, and to maximise the climate and nature benefits of healthy seabed sediments. This should include an avoidance-first approach for marine planning, whole site management or targeted protection of the most carbon-rich sediments as recognised features within Marine Protected Areas and restoration of vegetated habitats as an active measure to increase natural carbon stores. Together with GHGA reform, these measures would reposition marine sediments as part of the UK's natural climate infrastructure, ensuring that efforts to decarbonise the economy do not inadvertently undermine one of the country's most important carbon stores.

This briefing is a summary of a full Wildlife Trusts report: 'Considering Blue Carbon in Marine Developments, Planning and Policy'.

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