



# RSPB Briefing Note: Blue Carbon on The Wash

We are in a nature and climate emergency, and we need to be doing everything we can to protect species and habitats and reduce the impacts of climate change. The recent Blue Carbon Mapping Project, led by the Scottish Association for Marine Science (SAMS) for WWF, the Wildlife Trusts and the RSPB has highlighted the importance of our blue carbon stores in the UK. This has identified that The Wash is one of the most important sites within the UK with the highest potential blue carbon storage.

## What is Blue Carbon and Where is it Stored?

Carbon that is removed from the atmosphere and locked away (sequestered) in marine and coastal habitats including mudflats and saltmarshes is termed 'blue carbon.' These habitats, which make up much of The Wash, are estimated to be better at sequestering carbon than tropical rainforest, several times better in fact. In addition to being excellent at removing carbon from the atmosphere, they also have the capacity to lock it away for millennia, significantly longer than forests, for example. This is because, once locked away, these carbon stores, in theory, should remain undisturbed.

## How Much Carbon is Stored in The Wash?

The Wash contains around 4800 hectares of saltmarsh (5000 football pitches) and around 50,000 hectares of mudflats, sandflats and seabed sediment (80,000 football pitches). So, taking the average estimate, the saltmarshes alone can sequester 4320 tonnes of carbon per year. This is in addition to the carbon stocks they already hold, estimated to be around 1.224 million tonnes in the top 30cm of sediment alone!

Research into the sequestering potential of the seabed is ongoing but taking an average of current estimates suggests that the mudflats and sandflats in The Wash sequester 3000 tonnes of carbon a year and store 3.3 million tonnes in the top 1 metre of soil.

**That means The Wash currently stores 4.5 million tonnes of Carbon, and this is growing year-on-year. This is the equivalent of planting a forest 5 times the size of King’s Lynn and leaving it to grow for 100 years!**

<b>Habitat</b>	<b>Average Carbon Burial Rate (tonnes of carbon p/hectare p/year)</b>	<b>Average Carbon Stock to 1m depth (tonnes of carbon p/hectare)</b>	<b>Extent of habitat on The Wash (hectares)</b>	<b>Carbon Burial Rate on The Wash (tonnes of carbon per year)</b>	<b>Carbon Stocks on The Wash (tonnes of carbon)</b>
<b>Saltmarsh</b>	<b>0.9</b>	<b>255</b>	<b>4800</b>	<b>4320</b>	<b>1,224,000</b>
<b>Tidal mudflats and seabed</b>	<b>0.004</b>	<b>66.34</b>	<b>50,000</b>	<b>200</b>	<b>3,317,000</b>

*Carbon sequestration and storage on The Wash. Figures taken from Blue Carbon in the UK report and JNCC data sheets*

## **What does the future hold for Blue Carbon?**

**All habitats that capture and store carbon can subsequently release that carbon if they are degraded or destroyed, and the habitats on The Wash that store blue carbon are no different. Therefore, protection and restoration of these habitats is of the highest importance if we are to mitigate some of the impacts of climate change.**

**The Wash has, over thousands of years, found a delicate balance where vast tidal mudflats and saltmarshes naturally build up and store carbon. Work that protects, enhances or creates more blue carbon habitats around The Wash would increase the carbon sequestration potential of the estuary, as well as protect the internationally important bird populations that use it.**

**On the other hand, any human activities that disturb this balance would undoubtedly threaten these carbon stores. These threats include inappropriate development and pollution.**

**Together with WWF and The Wildlife Trusts, we are calling on governments across the UK to strengthen protections for valuable blue carbon stores. We are also calling for all Marine Protected Areas to be protected from activities that damage important blue carbon stores and threaten marine life. Doing so could help the UK to meet both climate and biodiversity goals, including net-zero and the international agreement to protect 30% of seas by 2030.**

## References

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