RIDGE
CARBON CAPTURE

RIDGE GRAHAM

A PEATLAND RESTORATION PROJECT

2022-2024

RIDGE CARBON CAPTURE LTD

WITH THANKS TO MR. GRAHAM

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WHAT IS PEATLAND?

Peatland is a waterlogged environment which is found all over the world. The peaty soils which cover peatland are formed as organic matter partially decomposes due to the low-oxygen environment. Due to this partial decomposition, peat has a very high organic carbon content of around 40%, compared to just 2% for mineral soils. There are three types of peatland: fens, blanket bogs, and raised bogs. The Ridge Graham project is situated on a blanket bog peatland.


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WHY IS PEAT IMPORTANT?

Peatlands are a globally important carbon store, holding around one third of the world's carbon, despite only covering about 3% of the total land area. When in a natural, pristine condition, waterlogged peatlands continuously sequester carbon dioxide from the atmosphere. They also provide an important habitat to a variety of protected species, such as the mountain hare. Good peatland management is therefore essential in the fight against both climate change and biodiversity loss.


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PEATLAND IN THE UK

The UK contains 3 million hectares of peatland, which cover 12% of its land area. It has 13% of the world’s blanket bog, which is considered to be internationally important as it is globally rare. However, 80% of peatlands across the UK are badly damaged and thus contribute a staggering 5% to UK's annual carbon dioxide emissions. At the same time, biodiversity is in crisis, with the UK having lost nearly half of its biological variety since the 1970s. By restoring peat we can help combat both of these threats.


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WHO ARE RCC?

Ridge Carbon Capture Ltd (RCC) are a natural carbon capture developer and investor with an established and successful history of working with landowners and tenants to design, build, finance, and maintain peatland restoration projects across the UK. In doing so, we help to repair our climate, remove carbon from our atmosphere and generate marketable carbon credits. Our projects cover thousands of acres and counting, all funded by own private capital (and public grant funding where available) across the project lifetime – not just the initial restoration.


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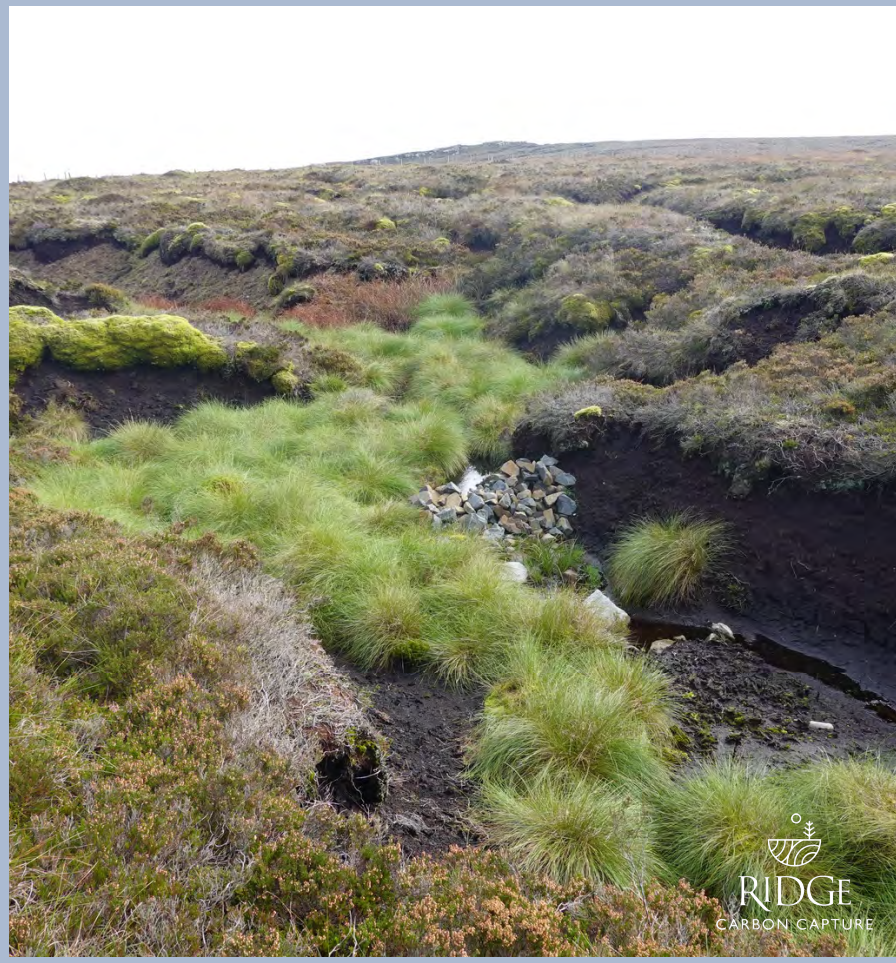
WHAT IS RIDGE GRAHAM?

In November 2022 Ridge Carbon Capture Ltd started the Ridge Graham restoration project. This peatland had been degrading for decades due to a large series of drains. Ridge Graham is the first peatland restoration project in England to blend private and public finance via the Nature for Climate Peatland Grant Scheme (NCPGS). It will play an important role in supporting the government's "England Peat Action Plan" target of starting restoration across 35,000 hectares of damaged peatland by 2025.

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WHERE IS RIDGE GRAHAM?

The Ridge Graham Project is situated on 450 hectares of degraded upland bog in the Northeast of Cumbria. The surrounding area has traditionally been used for livestock grazing and forestry. It is situated within the catchment of the River Irthing, which feeds directly into the Eden just outside Carlisle. This confluence has been the location of several major flooding events in the past. The Ridge Graham project will hope to benefit the wider area by helping to reduce the frequency of these flood events - particularly important in a changing climate.


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OUR VISION

Ridge Graham will abate tens of thousands of tonnes of carbon dioxide over the next 100 years. It will also produce a range of co-benefits such as flood mitigation and habitat restoration, helping to create a more resilient environment in the UK. In addition, we will aim to contribute towards the wider local area through active engagement with local communities and stakeholders.


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OUR PROCESS

We design our projects in-house with input from conservation bodies and local experts. This is to ensure our restoration plans are adapted well to the local environment. It also means that every project is slightly different. For Ridge Graham we used over 3,000 bags of cut heather brash, which was spread over areas of bare peatland. More than 2,000 stone dams were installed, and over 1,200 coconut coir logs were used to break up expansive areas of bare peat.


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HOW IT WORKS

The heather brash will ensure reductions in wind and water erosion, while providing a secure environment for seeds to germinate. The stone dams and the coir logs aim to reduce the flow rate of the water over the peatland. Not only will this reduce the active erosion of peat by water, but it will also help raise the water table of the peatland, meaning that it can return to its pristine, water-logged state. This will allow peat formation to recommence and carbon sequestration to resume.


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HOW WE MONITOR

Our enhanced monitoring team gathered extensive data pre-restoration to allow us to track the peatland's health. Various methods are used to collect data including; installed dipwells to monitor the water table depth; drone flights to track the increasing vegetation cover; and ecology surveys to observe which bird and plant species are present. Monitoring will be conducted every year post-restoration in order to observe the peatland's improvement.


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COMMUNITY ENGAGEMENT

Organised by RCC's Community Partnership Team, pupils at the local primary school discovered how the restoration of local peatlands in Northeast Cumbria is helping tackle climate change and restore habitats for local wildlife. The children were excited to learn more about peat, from its history and role within society, to its scientific makeup. Through this immersive experience, they learnt how carbon is stored in restored peat, reducing the release of damaging greenhouse gases.


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2023
LEAVERS
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The Fall and Rise of Bolton Fell Moss
2023

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