

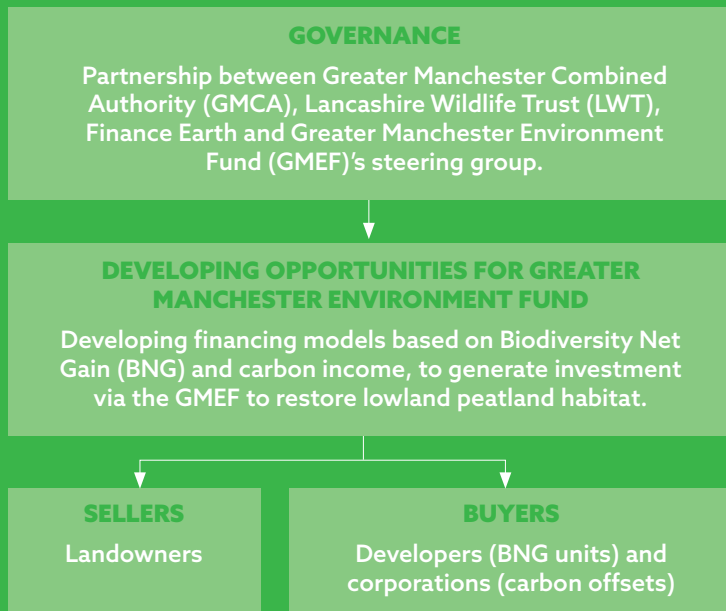
This is one of a suite of case studies of NEIRF funded projects, to highlight efforts to protect and enhance the natural environment, while generating revenue from ecosystem services.



Little Woollen Moss

GREATER MANCHESTER ENVIRONMENT FUND: SCALING UP NATURAL CAPITAL INVESTMENT

HIGH LEVEL SUMMARY OF PROJECT



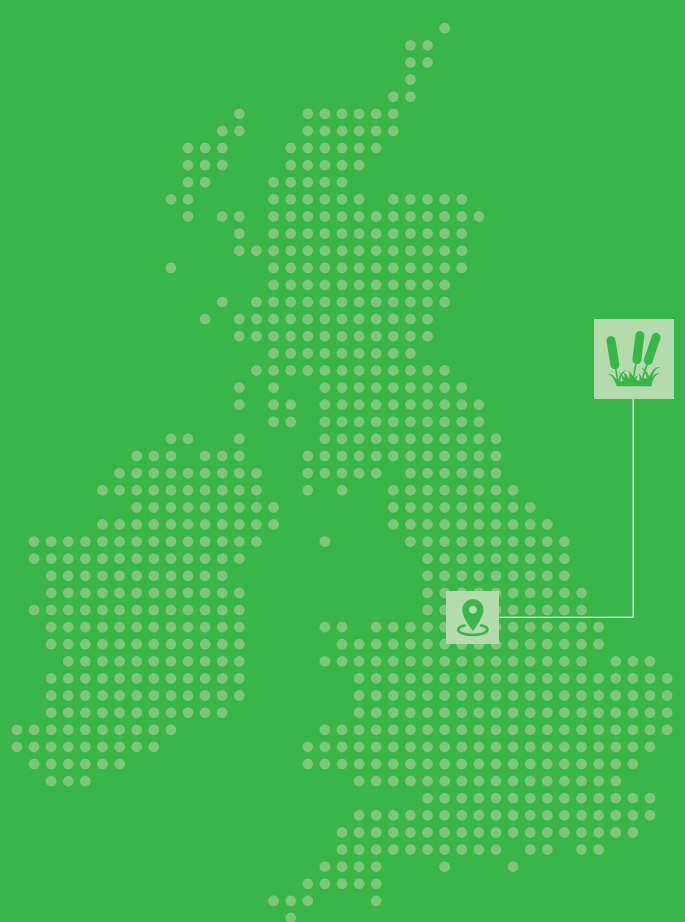
Habitat and geographical location



Degraded arable farmland restored to lowland peatland



Railway View in Chat Moss, Salford



GREATER MANCHESTER ENVIRONMENT FUND: SCALING UP NATURAL CAPITAL INVESTMENT

PROJECT OVERVIEW

Greater Manchester faces environmental challenges including air pollution, degradation of natural habitats and increasing risks from climate change. Some of the habitats in Greater Manchester include a total of 17,500 ha of lowland and upland peatland, much of which is degraded.

These habitats are important for their carbon storage, yet around 90% of peatlands across the UK have been drained for agriculture or other land use. In 2020 a partnership between Greater Manchester Combined Authority (GMCA), Lancashire Wildlife Trust (LWT) and Finance Earth created the Greater Manchester Environment Fund (GMEF) to channel private investment into environmental restoration and restore Greater Manchester's peatland. NEIRF funding was used by the partnership to support the GMEF to develop the case for investment into lowland peatland restoration.

The NEIRF grant was used to fund:

- Financial and ecological analysis to test and model potential approaches to 'stacking' carbon and BNG (i.e. separately selling both carbon and biodiversity units generated by the same activity on one piece of land).
- Collaboration with the International Union for Conservation of Nature UK Peat Program to support the extension of the Peatland Code to lowland peat.
- Development of the project's financing structure and investment case.
- Sharing learning through GMEF to support scale up of investment.

These activities were developed and tested in the project's pilot site of Railway View (20 ha) in Salford's Chat Moss area. Chat Moss is the largest remaining fragment of lowland peatland in Greater Manchester. It currently emits a large amount of greenhouse gasses due to degradation and was selected due to the opportunity for significant carbon reduction, biodiversity enhancement and connectivity of habitats across the area, if restored and sustainably managed.

The project aimed to use NEIRF funding to develop a financial modelling and investment case to channel finance into peatland restoration at the Railway View site as a pilot. It aims to sell biodiversity or carbon units to generate returns for investors and support ongoing restoration costs. It also aims to deliver community benefits, such as access to the site, green jobs and apprenticeships, community volunteering and training opportunities. These social outcomes will be measured by LWT annually.

During the NEIRF project term, the Railway View site was acquired by Natural England meaning that the focus for discussions is on the future of the pilot site and route to market. In parallel, the project is developing the GMEF and optimising an investment aggregation vehicle for BNG markets, which will channel funding into natural environment projects at other Greater Manchester sites. A second NEIRF-funded project will support this work, led by LWT to develop a Greater Manchester BNG Investment Facility.



GREATER MANCHESTER ENVIRONMENT FUND: SCALING UP NATURAL CAPITAL INVESTMENT

GOVERNMENT ENVIRONMENTAL GOALS



Clean and plentiful water

Peat restoration and re-vegetating the bare peat site at Chat Moss will **regulate water quality** and reduce peat and the carbon it stores from entering watercourses. Converting farmland to re-wetted peat or wetter farming will **reduce pollution into the River Glaze**.



Thriving plants and wildlife

Restoration of peatland will **allow rare species to recover** and will provide wildlife corridors and connectivity within the area's landscape.



Reducing the risks of harm from environmental hazards

The Irwell Valley area within Salford has properties at risk of flooding despite two flood storage basins and other flood management infrastructure. The project will **reduce flood risk** as peat restoration at Chat Moss will regulate water flow. By scaling up, the project will contribute to the Greater Manchester 5 Year Environmental Plan target to reduce flood risk to 1,300 households across Greater Manchester. Healthy peatlands also **help increase resilience to fire and drought**.



Enhancing beauty, heritage, and engagement with the natural environment

The Greater Manchester area is one of the most populated city regions in the UK but the state of nature is poor and under threat. Habitat enhancement of Chat Moss and the mosslands will offer **potential for recreation as well as job and volunteering opportunities**.

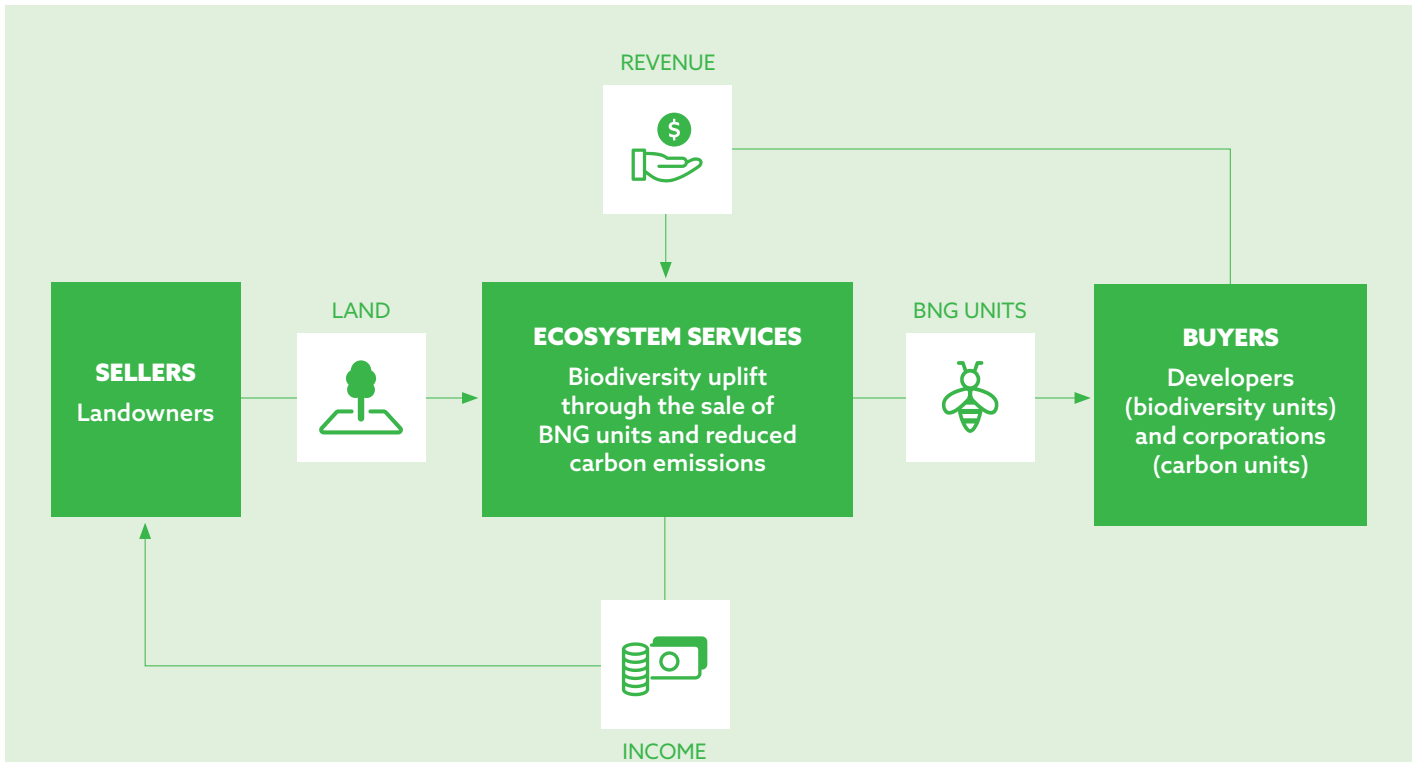


Mitigating and adapting to climate change

High quality peatland habitats store twice as much carbon as the world's forests according to the International Union for Conservation of Nature's Peatland Programme. Addressing local peatland emissions, such as at Chat Moss, is therefore crucial to GMCA's commitment to achieving carbon neutrality by 2038.

GREATER MANCHESTER ENVIRONMENT FUND: SCALING UP NATURAL CAPITAL INVESTMENT

REVENUE MODEL



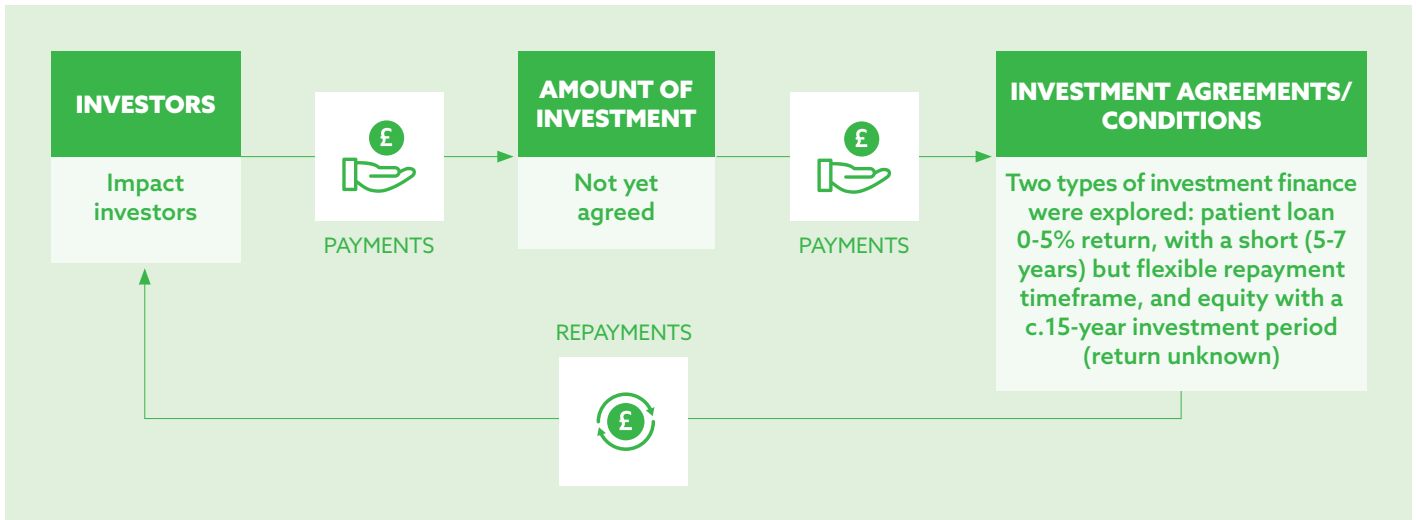
The project aims to sell either biodiversity or carbon units from the pilot site. The project team developed different financial models based on the sale of biodiversity and carbon units, including temporal, vertical and zonal [stacking and bundling](#) (some of which are not currently permissible). They determined that bundling was more feasible due to challenges in meeting additionality criteria under the Peatland Code verification for site carbon units, and market and tax uncertainties for combining revenues from biodiversity and carbon units.

Using the Defra biodiversity metric 3.1, the project expects the Railway View Field site to generate 50+ biodiversity units before habitat restoration and 300+ units if a habitat banking approach is taken, based on the sale of verified units. The project also used draft emissions factors from the Peatland Code (prior to the release of the Code's second version) to predict reductions in carbon emissions from restoring the site. The units from the site will then need to be validated by the Peatland Code and verified on an ongoing basis.

No sales were agreed during the NEIRF lifetime from the pilot site due to the change in ownership however the project has seen significant demand from a range of local businesses that have approached GMEF to discuss the purchase of carbon units. The project has also seen demand for biodiversity units from local housing and infrastructure developers. Developer demand at a local market level was modelled using development plans detailed in Salford's Housing and Economic Land Availability Assessment (2021-2026). In addition to investment, GMEF may in future consider upfront sales to generate funds for site restoration and maintenance where land ownership and planning permission allow, and have modelled several scenarios.

GREATER MANCHESTER ENVIRONMENT FUND: SCALING UP NATURAL CAPITAL INVESTMENT

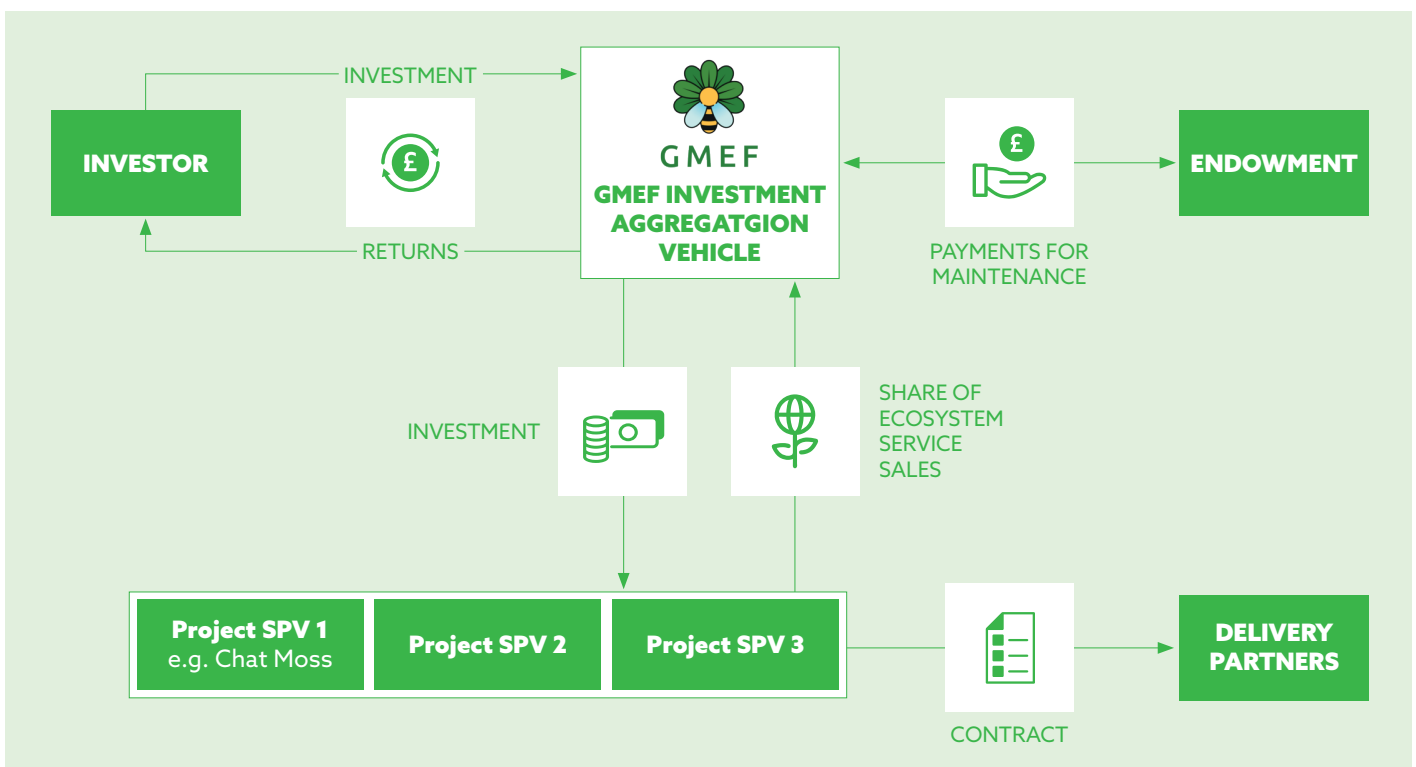
INVESTMENT MODEL



For a 50-year peatland carbon project at the Railway View Field pilot site, the GMEF predict total carbon revenues of £2.8 million. Around £456,000 in start-up capital would be required, of which £136,000 could be secured through a restoration grant from Defra's Nature for Climate Peatland Grant Scheme. These funds would pay for restoration and maintenance costs as it will take some time to generate revenues from Peatland Carbon Units verified under the Peatland Code. In time, costs would be covered by sales of biodiversity and/or carbon units. Investors would receive a share of revenues from sales.

With investment, a Special Purpose Vehicle (SPV) may be needed to contain project cashflows and manage potential risks.

The project also identified an opportunity for an aggregation facility for biodiversity units, which is the focus of the GMEF's second NEIRF project. This would enable the aggregation of small-scale projects to deliver economies of scale, unlock new sources of private capital and facilitate learning and sharing of best practice across the city-region. The GMEF sees aggregation as very important to facilitate investment as individual project are often small.



GREATER MANCHESTER ENVIRONMENT FUND: SCALING UP NATURAL CAPITAL INVESTMENT

INNOVATION

The project developed an investment case for a pilot site, supporting GMEF to expand its remit and providing a framework for local authorities to finance nature recovery by selling carbon and biodiversity units. It has illustrated how a viable business model could be achieved across both BNG and carbon income streams to support lowland peat restoration through a bundling approach, after exploring multiple approaches to stacking.

SCALABILITY AND REPLICABILITY

The project modelling for the pilot site is replicable across other lowland and fen peatland sites in England. Learning about natural environment investment and key barriers was shared at quarterly GMEF steering group meetings (with around 10 local organisations represented). The project hopes to contribute to the development and scale of market infrastructure and policy supporting investment in lowland peatland habitats across England. The project team has also shared learning beyond Greater Manchester, at Nature North events, NEIRF knowledge sharing sessions, and meetings with the Defra Peatland team and IUCN Peatland Programme. To help maintain momentum with potential buyers from the first NEIRF project, template carbon and BNG buyer engagement 'teasers' were developed which will also help to adapt pitches to attract funding for future sites.



LEARNING POINTS

- A **low intervention restoration** approach can lower delivery costs and improve commercial viability.
- **Consider the pros and cons of different sales approaches, including upfront sales:** upfront sales of biodiversity units can help to build a track record in the region and reduce the risk of lifetime liability if sales are not achieved. The sale of verified Peatland Carbon Units ensures that carbon reductions are delivered at the point of unit sale, and helps to better match project costs with income generated.
- Investors often have minimum investment values and expected returns. To attract equity investment and/or patient loans, **aggregating smaller investment opportunities** allows to meet the minimum ticket sizes of investors and connect regional supply and demand.
- Buyers are interested in **local carbon projects with a focus on project quality and local benefits**.

WOULD YOU LIKE TO KNOW MORE?

If you would like to learn more about the Greater Manchester Environment Fund NEIRF project, please get in touch with Daveen Wallis, Director of Nature and Wellbeing at Lancashire Wildlife Trust at dwallis@lancswt.org.uk, or Alicia Gibson, Director at Finance Earth at alicia@finance.earth. For questions regarding NEIRF, please contact NEIRF@environment-agency.gov.uk.

This case study was produced by Ecorys.