Natural Capital Solutions

Natural Capital Audit and Investment Plan: Cheshire and Warrington

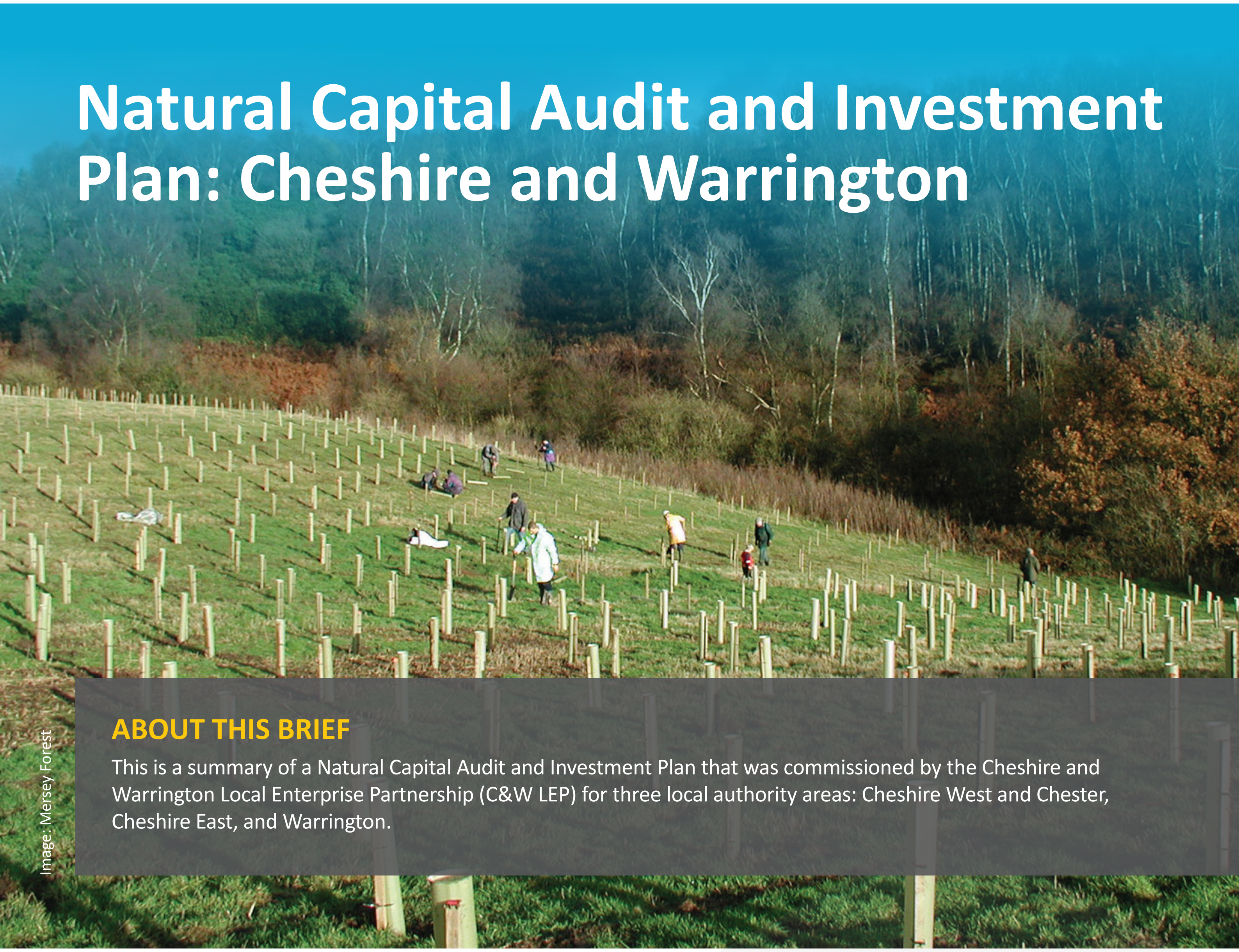

Image: Mersey Forest

ABOUT THIS BRIEF

This is a summary of a Natural Capital Audit and Investment Plan that was commissioned by the Cheshire and Warrington Local Enterprise Partnership (C&W LEP) for three local authority areas: Cheshire West and Chester, Cheshire East, and Warrington.

BACKGROUND

Natural capital underpins our wellbeing and economic prosperity, providing multiple benefits to society. There is now much greater awareness of the role of natural capital in the design and achievement of economic and social development strategies, with strong links to business and enterprise.

The C&W LEP identified the need for an assessment of the interrelationship between natural capital and its economic and social development ambitions for the area. This was driven by the need not only to manage risks to the natural environment associated with economic development, but also to explore the opportunities to tap into new funding sources and mechanisms for innovative investments that can achieve substantial gains for people and the natural world.

APPROACH

The first step was to map the current natural capital assets, the ecosystem services that flow from these assets, the demand for some of these services, and their monetary value. Policy analysis was then undertaken, and opportunities to enhance natural capital were considered. In order to achieve buy-in, a stakeholder workshop was conducted. Sources of funding were examined, focusing on new and emerging options for financing projects that enhance natural capital. A series of case studies were then developed and a strategic framework for identifying and funding natural capital projects was produced, with recommendations made for moving forward.

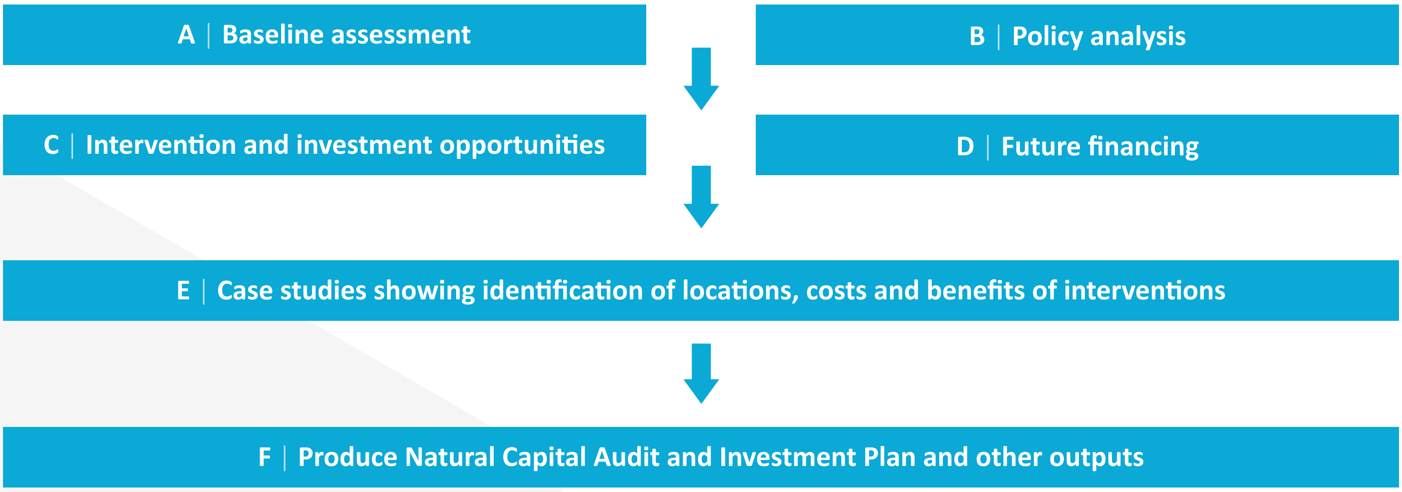

Figure 1. Outline of approach

RESULTS

Baseline natural capital assets

The Cheshire and Warrington region is dominated by improved agricultural grassland, along with significant amounts of arable land. Tree and woodland areas make up 7.8% of the county, which is below the national average. Semi-natural habitats such as mire and swamp, heathland, and semi-natural and marshy grasslands together make up 3.5% of the region. Built up areas, infrastructure, and gardens make up a combined 14.5%.

Modelling and mapping ecosystem services

The assessment highlighted ten different ecosystem services, with demand for four. The maps demonstrate that woodland assets are important for high levels of provision of carbon storage, carbon sequestration, air quality, noise, local climate and water flow regulation, and timber/woodfuel production benefits. The upland heathland and bog habitats in the Peak District are important for carbon storage, but also have a high level of provision for access to nature. They are currently a source of GHG emissions due to degradation of the peat. The demand maps of air quality, noise, local climate regulation, and accessible nature show the importance of ecosystem service delivery to urban centres.

Economic value of natural capital

The monetary value of the benefits provided by natural capital is large: £465 million per annum across the whole of Cheshire and Warrington, representing an asset value (present value) of £13.4 billion over 50 years. Overall values are larger for Cheshire East and Cheshire West and Chester, but if calculated on a per hectare basis are highest for Warrington, where publicly accessible green space provide benefits of high value, particularly for recreation and physical health. When carbon sequestration is balanced against agricultural emissions, Cheshire and Warrington as a whole is a net emitter of carbon dioxide of 441,000 tonnes per year, at a cost of £30.5 million annually. This high figure is driven by the large amount of dairy and other livestock across the area.

Policy analysis

The policy analysis focused on eight categories: agriculture; skills and education; energy, clean growth, housing and construction; manufacturing, logistics and services; minerals and waste management; environmental management; health, wellbeing and tourism; and transport. Key opportunities identified included the development of forests and urban green spaces, the transition to clean growth, and supporting local communities to develop digital skills. The most significant threats identified were housing developments on the green belt, additional pressures on services, and road development.

Habitat opportunity mapping

Maps were created to show where new habitats could be created for biodiversity enhancement for five broad habitat types, as well as for six different ecosystem services (Figure 2). These maps should be considered when assessing potential locations for habitat creation or restoration projects, rather than as an end in themselves. The maps are best examined on a Geographic Information System (GIS), and GIS layers have been provided to project partners.

Priorities

Maps showing priority areas across a range of environmental, social, and economic policy themes were also produced, building on previous GI planning work (Figure 3). These maps were overlain to show areas where multiple policy priorities coincided and can be used to highlight optimal locations for investments in natural capital, from a policy perspective.

Stakeholder workshop and case studies

An initial stakeholder workshop was held to help embed a natural capital approach and plan across the region. This enabled stakeholders to join discussions on decision-making regarding prioritisation.

Five case studies were developed to demonstrate how the evidence base can be used to identify locations for natural capital projects, the costs and benefits of such projects, and how funding requirements and potential funding sources can be identified.

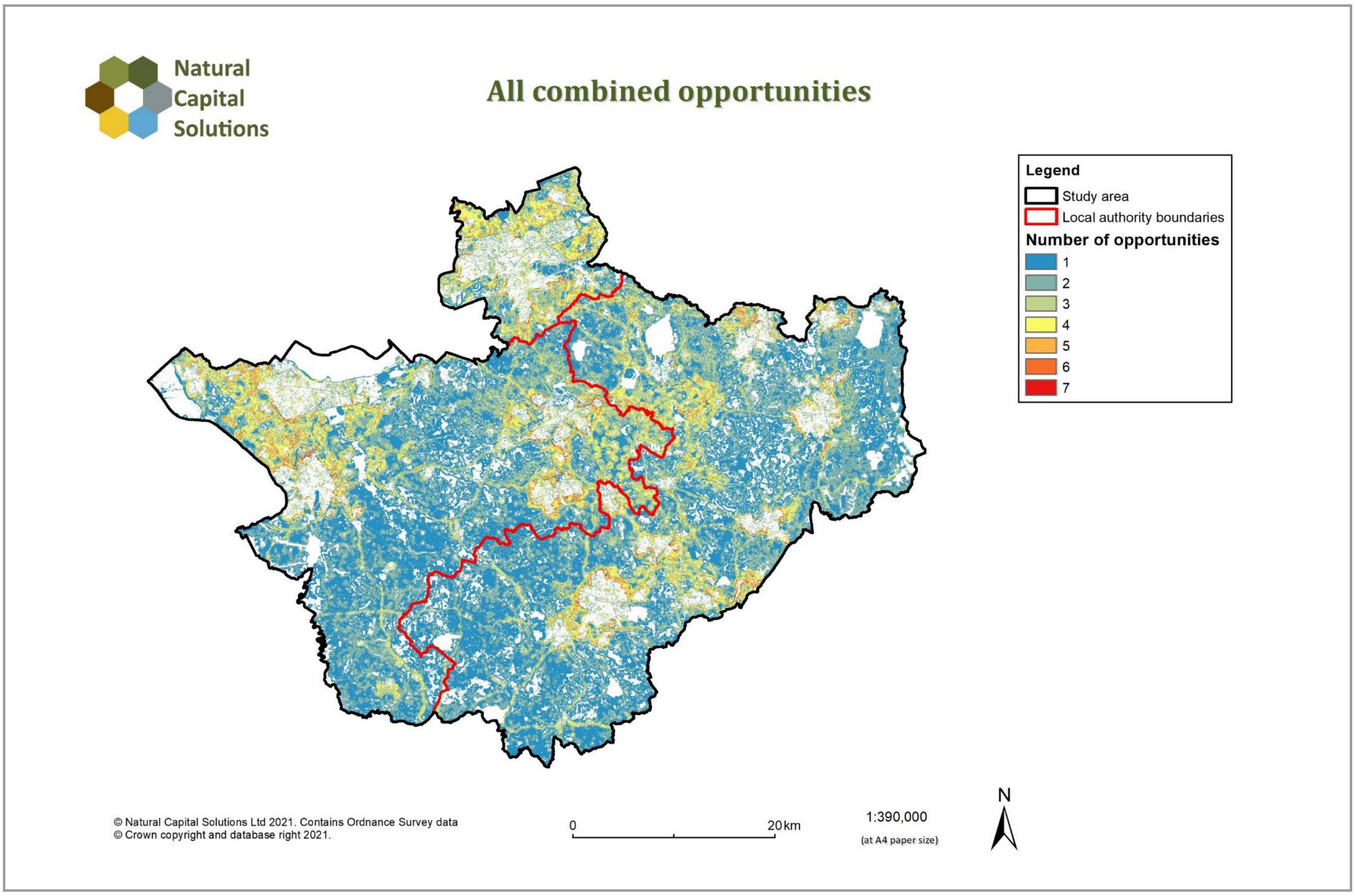

Figure 2. Combined opportunities for creating new habitats across Cheshire and Warrington

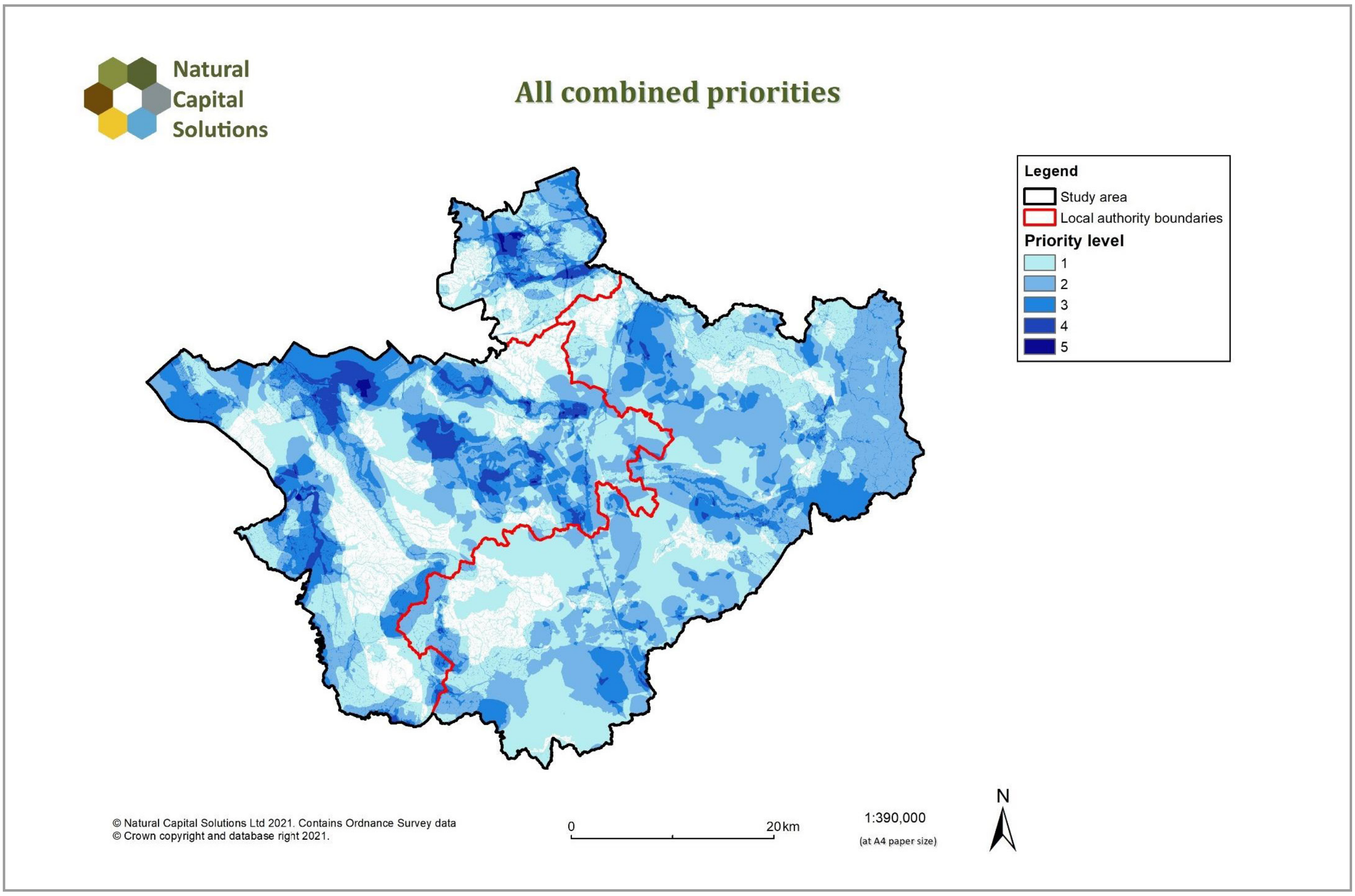

Figure 3. Combined priority locations across Cheshire and Warrington, showing the number of themes that overlay (out of 7)

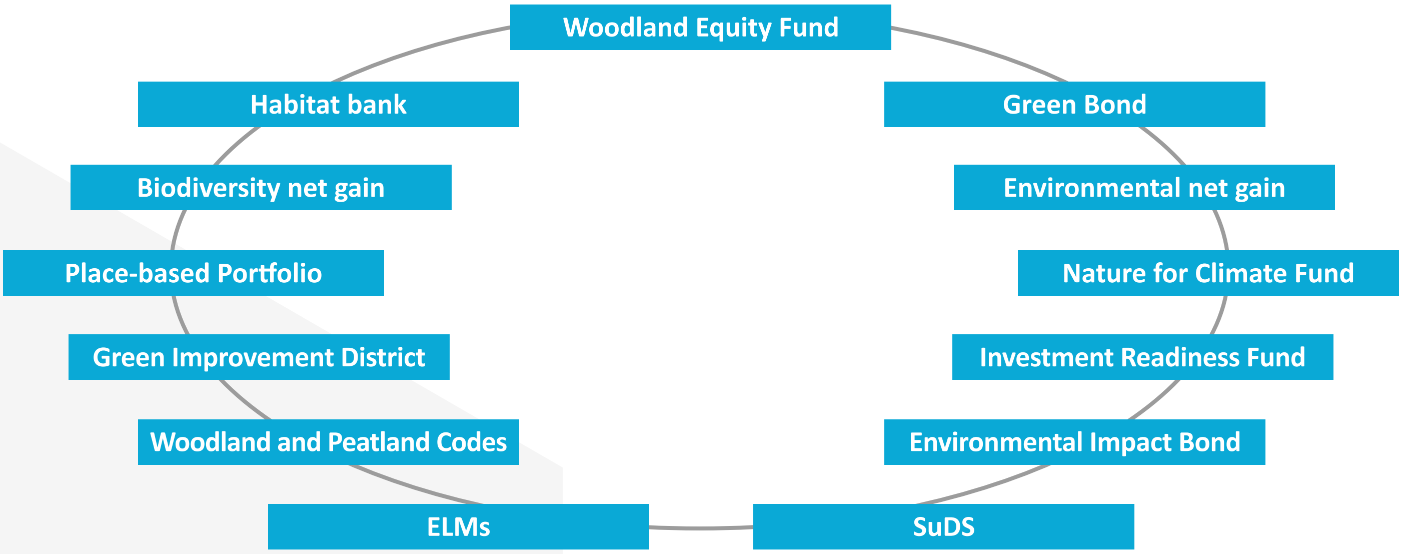

Figure 4. Financing options

Funding mechanisms

A range of funding mechanisms were reviewed as potential sources of investment into natural capital in the Cheshire and Warrington region (Figure 4). The funds were assessed in terms of their potential application to different ecosystem services. This information was then used as the basis for a spreadsheet that enables the most appropriate funds to be identified, depending on the ecosystem services that are the main focus of a project, programme, or policy.

RECOMMENDATIONS

The natural capital audit and assessment has pointed to some key areas where action can be taken:

1. Move to sustainable agriculture – Given the dominance of livestock farming in the region, there should be a focus on emissions reduction from farming, as well as increasing the sequestration capacity of the farmed landscape.
2. Expand woodland – Opportunities to connect woodland with existing core habitat should be pursued.
3. Restore grassland habitats – A move away from intensively managed fields to a more diverse grass sward with reduced inputs would increase the biodiversity value of these fields.
4. Restore bog habitats – Restoration will significantly reduce GHG emissions, slow the flow of water, and increase water quality.
5. Create new natural and biodiverse green spaces – These should be created in areas where access is currently low.
6. Enhance biodiversity – Through habitat creation in the areas identified by the opportunity mapping.

KEY ACTIONS MOVING FORWARD

To ensure the Natural Capital Audit and Investment Plan is used in decision-making, key actions are recommended:

1. View and share data
2. Develop a communications strategy
3. Develop a portfolio of costed projects
4. Set up an Investment Readiness Fund/Environment Fund
5. Embed the natural capital approach within local policy
6. Link with delivery mechanisms
7. Hold training and workshops
8. Update the evidence base
9. Map habitat quality.

Access the full report and technical annexes here:
https://cheshireandwarrington.com/what-we-do/sustainability/sustainability-and-clean-energy-projects/