



Climate
Action
Leeds

Case study

Seacroft Forest Garden



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Fruit tree pruning workshop

Project/Activity summary

In 2021, members of Climate Action Seacroft (CAS) - one of the Climate Action Leeds (CAL) community hubs - expressed an interest in developing growing spaces in the area, with the aims of growing food for the local community, reducing carbon emissions, providing opportunities for local people to get some exercise, enjoy the fresh air and to support mental wellbeing. A 0.6 acre plot in Seacroft, owned by Leeds City Council (LCC), was identified as a possible site for this. It was surrounded by houses and described as an overgrown 'neglected wilderness.' The CAS volunteers worked with a housing manager at LCC to get agreement for them to develop the site as a forest garden and get all the necessary health and safety assessments done so work could start .

The volunteers were supported by the CAL Nature Transition Partner from Hyde Park Source (HPS) to develop a design for Seacroft Community Forest Garden and identify and source fruit trees, which were the first plantings on site in the 'canopy section'. Approximately 70 fruit bushes and rhubarb crowns have been planted, plus a herb garden, lavender bushes and some New Zealand flax to use in weaving. A local farmer also donated willow stems, so that when grown the willow can be used by local craft groups for basket weaving.

In 2023 a small annual growing area was developed. This enabled the volunteers to grow potatoes, peas, cauliflowers, brussel sprouts, broccoli, green beans and tomatoes, which were donated to the local food pantry and St Richard's church food bank. A seating area has been developed, which includes a 3m living willow dome and Hyde Park Source,

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the CAL Nature Transition Partner host organisation made a bench, which has been placed under an old oak tree. One volunteer said 'it's just bliss sitting under there.'

Seacroft Community Forest Garden volunteers organise a number of events and hosts visits from different groups. In October 2022 and 2023 they ran apple juicing events and in 2023 they held an open day, attended by the Lord Lieutenant of West Yorkshire. The garden hosted an easter egg hunt, seed bomb making and rock painting event in 2024, with over 30 families attending. Other groups using the forest garden include a local creative writing group and in 2024 the Leeds Mindfulness Co-operative ran an eight week Mindfulness and Nature Course for local residents, partly funded by Climate Action Leeds. There have also been 11 corporate volunteer groups visiting the forest garden, with Hyde Park Source instigating contacts with these groups. These include NHS teams, the Group Media, British Gas, PH Jones and the LCC tenant engagement team, who all get involved in work on site. In the summer holidays, Seacroft Forest Garden hosts visits from groups of up to 30 children through the Healthy Holidays programme.

How is this helping to deliver the CAL aims of a zero carbon, nature friendly, socially just Leeds by the 2030s?

Seacroft Community Forest Garden is contributing to the CAL aims as follows:

- Zero carbon Leeds. The forest garden is delivering carbon savings – see the carbon impacts section below.
- Nature friendly Leeds. The forest garden approach enhances biodiversity and uses natural methods for pest control
- Socially just Leeds. Food produced in the first garden is donated to the local food pantry and St Richard's church food bank. Local residents can visit and get involved in the work in the forest garden, providing opportunities for exercise and improving mental wellbeing.

What has been the impact of the project/activity?

The Seacroft Community Forest Garden project has transformed an overgrown, unused site into a haven for people, wildlife and food growing. It is driven by local residents and provides a space where local residents can get actively involved in the project design and delivery. The vegetables and fruit grown on site are donated to a local food pantry and food bank. The wider impacts of the project are on improving people's health through access to a local greenspace, exercise and use of the locally produced vegetables and fruit and there are also wider benefits through carbon emission impacts – (see below).

What has been the carbon impact of the project/activity?

The carbon impacts of the forest garden can be measured in different ways. Two different methods have been used here:

The first method considers Seacroft Community Forest Garden as a **Food Forest**, with carbon measured for carbon captured (sequestered) across the whole site in the plants and soil. This uses an estimate, developed by Martin Crawford¹ that food forests can sequester 4-5 tonnes of carbon/hectare/year. As a young 'food forest', the lower end of this range of 4 tonnes of carbon/ hectare/year is being used here. 0.6 acres is 0.243 hectare, which means an

¹ [Maximising carbon storage in food forests](#)

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estimated that **972kg** of carbon is captured in Seacroft Forest Garden per year. This method is useful for measuring carbon impacts for whole forest garden system projects.

The second method is based on the carbon captured by **trees planted** in the forest garden. 19 trees were planted in 2022, which were mainly fruit trees, including apple plum, pear and mulberry trees. There are a number of different tools/approaches available for measuring carbon savings from trees, which have different data input requirements for the trees. The one used here is a simple approach, based on the mid-range from an assessment of carbon savings of different tools, which uses an estimated 27kg carbon per year per tree.² For the 19 trees planted at Seacroft Community Forest Garden this means an estimated **513kg** of carbon is captured per year. This method is useful for measuring carbon where trees and tree planting are a significant part of a project.

As the forest garden matures, carbon impacts could also be measured for production/use of local food.

What could the carbon impacts be if this project/activity was scaled up to a Leeds city level?

If forest gardens were developed across the whole of Leeds, this could deliver significant carbon savings for the city. The carbon impact estimates above for Seacroft Community Forest Garden are used here to estimate the potential carbon impacts if forest gardens were rolled out across Leeds. This uses the 2021 population sizes of the Killingbeck and Seacroft ward³ and Leeds city area as a whole⁴ as the basis for the estimated scaling up of carbon impacts that could be achieved if forest gardens of similar size to Seacroft Forest garden were developed across the city.

Using the food forest carbon impact estimates, above, for Seacroft Community Forest garden. If this was scaled up across the Leeds city area the estimated carbon impacts would be **29.57 tonnes** of carbon captured per year.

Using the carbon saving impact, above, for trees planted in Seacroft Community Forest Garden. If this was scaled across the Leeds city area the estimated carbon impacts would be **15.61 tonnes** of carbon captured per year.

What helped make this a success?

Showing the nearby Bedford Fields Forest Garden to the LCC housing manager, as an existing example of a forest garden was really helpful in showing what was possible and getting agreement for the LCC site to be developed as a forest garden.

Support and guidance from the CAL Nature Transition Partner - Hyde Park Source on design & planting advice and connecting into wider 'Nature Networks' in Leeds including Leeds Green Activity Providers. Hyde Park Source also helped Seacroft Community Forest Garden create links and contacts with corporate volunteers which has enabled bigger jobs to get done and kept momentum going within the volunteer group.

What resources were needed?

The project has been led by a team of core volunteers, with many other volunteers helping out on a regular basis.

² [Encon: Calculation of CO₂ offsetting](#)

³ [Leeds Observatory ward data](#)

⁴ [Leeds observatory local authority census are profile](#)

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Expert advice from the CAL Nature Transition Partner from Hyde Park Source and input from other experts as needed.

Accessing small pots of funding has been important to enable materials, tools and some plants and seeds to be purchased. This includes grants through local councillors, funding from Climate Action Seacroft and a grant from the National Garden scheme.

Many items have been donated, including plants and tools.

What did you learn from this?

You need to build in plenty of time at the start to get agreement in place to use the site as a community forest garden.

A lot of work was needed to get all the health and safety assessments done before work could start and then to clear the site, so this needs to be planned into any similar projects.

What are the next steps on this project/activity (it any)?

Currently Seacroft Forest Garden is not an open access site. The plan to improve site access will be through Hyde Park Source taking on the license for the site and managing the formal relationship with LCC. Hyde Park Source is a Leeds based charitable organisation that works with local communities to improve their surroundings and is the host organisation for the CAL Nature Transition partner. They are a long standing organisations with the necessary legal framework to enter into legal agreements with LCC. Hyde Park Source will then develop a partnership agreement with Seacroft Community Forest Garden, which outlines plans and creates a 'light touch' governance structure. This will enable the forest garden volunteers to carry on their great work, whilst giving Hyde Park Source the oversight they need to ensure that they are acting within the terms of the license.

Links to any sources of information that were important for this project/activity

www.agroforestry.co.uk/product/creating-a-forest-garden-2/

www.bedfordfields.co.uk/

lgap.co.uk/

www.rootsnpermaculture.com/

www.permaculture.org.uk/

www.leedspermaculturenetwork.org/

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Developing the forest garden plan



Forest garden squash harvest

Contact: Seacroft Community Forest Garden facebook page -
www.facebook.com/groups/232213728836360

Photographs by Linda Otley and Hyde Park Source

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