

City of Trees' position statement on the climate emergency



October 2019

Greater Manchester is taking action

The 5 Year Environment Plan for Greater Manchester sets out the long-term environmental vision – to be carbon neutral by 2038 – and the urgent actions we all need to take in the next 5 years to help achieve this.

The GMCA's plan acknowledges that mitigating climate change is the most significant of our environmental challenges and that trees and other GI form part of the solution. Their environmental vision includes more trees including in urban areas and all citizens having access to greenspace as well as an environmental education.

City of Trees is delivering on the climate change agenda. We are planting trees that will contribute to Greater Manchester becoming carbon neutral by 2038. We also look at ways Nature Based Solutions, especially trees, can be used to adapt our urban areas and make them more resilient to a range of environmental challenges including air quality, flood risk and extreme heat.

We want to work with partners to achieve this.

Demonstrating the value of Greater Manchester's trees and woods

During Summer and Autumn 2018 City of Trees completed the biggest i-Tree Eco survey outside the United States, with the aim of quantifying the value of Greater Manchester's trees and woods. Headline results:

- There are an estimated 11,321,386 trees with 15.7 per cent of the city region beneath tree canopy
- The total annual economic value of air quality improvements, stormwater attenuation and carbon sequestration in GM's trees is £33,298,891
- Approx. 1 million trees are in danger of being lost due to pests and diseases such as Ash Dieback and Horse Chestnut Bleeding Canker
- The region's trees act as a filtration system for harmful air pollutants – removing 847 tonnes of pollutants each year.
- They assist with excessive storm water, intercepting 1,644,415 cubic metres of storm water run-off per year.
- They sequester 56,530 tonnes of carbon each year and the current carbon of all the trees in the region is 1,573,015 tonnes.
- It would cost over £4.7 billion to replace all Greater Manchester's trees
- They produce 122,450 tonnes of oxygen each year
- The most common species of tree in GM are Hawthorn, Sycamore and English Oak

The i-Tree Eco project was supported by United Utilities, Viridor, Forestry Commission, Oglesby Charitable Trust, Environment Agency, Salford City Council, Woodland Trust, Heritage Lottery Fund, The Greater Manchester Forest Partnership and The Greater Manchester Combined Authority.



Manchester
City of Trees

Some of the information in this document is an adapted version of a manifesto originally authored on behalf of the Northern Forest. City of Trees would like to extend its thanks for the permitted use. Original documents can be found at <https://thenorthernforest.org.uk/benefits/>

Community Forest Trust (CFT) is the charitable organisation that supports the delivery of the City of Trees movement. CFT is a non-profit making company limited by guarantee. Registered in England no. 3598556. Charity registration 1072706.

Trees - A critical tool in addressing our state of climate emergency

Trees could be one of the best solutions to our climate emergency – multifunctional, living tools that help make our urban areas more resilient to challenges of a rapidly changing environment.

A CLIMATE CRISIS

Climate change represents the most significant danger to the long-term health of global ecosystems as well as our way of life. Currently, efforts to curb our collective carbon emissions are not delivering fast enough.

The scale of this emergency has been outlined in two landmark reports – one from the Intergovernmental Panel on Climate Change and the associated UK recommendations from the Committee on Climate Change (CCC).

Both these reports communicated the need for urgent action and drastic changes, including halving carbon emissions by 2030, to avoid destruction of wildlife and the ecosystems that support all life on earth.

The UK's Committee on Climate Change have advised the government that The UK should aim to increase the volume of carbon stored in our forests and land and that tree planting in UK 'must double to tackle climate change.'



“The best time to plant a tree was a generation ago, but the second best time is now.”

- Old Chinese proverb

About City of Trees

City of Trees works across Greater Manchester as well nationally on projects such as the ambitious Northern Forest (<https://thenorthernforest.org.uk/>).

We plant trees, establish community orchards, work with schools, preserve woodlands and connect people to nature.

THE NEED FOR TREES IS CLEAR

Carbon

Forests in the UK hold around 150 million tonnes of carbon in their biomass and 640 million tonnes of carbon in the soil. Each year these trees soak up a further 10 million tonnes of carbon. As a newly planted forest matures, just half a hectare is enough to soak up as much carbon as an average driver generates in an entire lifetime of motoring.

Trees and woods also help to protect our soil carbon – they hold onto soil and prevent erosion.



Water

Trees also play a role in tackling flooding and cleaning polluted water.

They can reduce surface water runoff, which can overload drainage systems and lead to flash flooding.

They can also help prevent soil erosion which is happening due to increased rainfall, leading to the loss of valuable topsoil and the pollution of watercourses.



‘Traditional hard defences such as flood walls, sea defences and embankments should continue to be combined with natural flood management... Sustainable drainage systems (SuDS) which help reduce downstream flooding, should be incorporated into all new developments.’

Climate change impacts and adaptation report; Environment Agency; November 2018

Planting trees along riverbanks can also minimise the effect of climate change on river temperatures. A pilot project by the Environment Agency showed this intervention could reduce water temperature up to 5.5C*. It also provided wider environmental benefits such as stabilising the banks, reducing water run-off, providing leaf litter for invertebrates and woody debris for fish refuge.

**See: <http://caba.dbdstaging.site/learn/keeping-rivers-cool/>*



Air pollution

Trees act as a filtration system for harmful air pollutants as well as producing oxygen.



Well considered and planned urban trees 'the right tree in the right place' can capture pollution particles and shield pedestrians from car emissions by creating cleaner pockets of air.

A car puts out about .45T of air pollution (O₃, CO, NO_x and particulates) each year so our trees are absorbing 847T about 1,882 cars worth each year.

Nature and wildlife

From the tallest tree to the smallest organism, biodiversity encompasses everything that's alive on our planet. If we lose this, we lose food, water and fresh air. Protecting it is not a choice, it's a must.



The State of Nature Report 2019 states that 'the abundance and distribution of the UK's species has, on average, declined since 1970 and many metrics suggest this decline has continued in the most recent decade. There has been no let-up in the net loss of nature in the UK.'

Woodlands provide habitats for wildlife with many species relying on them to survive, whilst urban green spaces provide crucial 'stepping stones' between residential and built up areas.

In our towns, cities and urban areas

55% of the world's population currently lives in urban areas, a proportion that is expected to increase to 68% by 2050.*



Trees in urban areas can lower temperatures helping to combat global heating and the urban heat island effect. In turn this can reduce air conditioning costs of building saving as much as 10% on annual energy consumption and cutting down air pollution caused by burning fossil fuels.

One study by the University of Manchester found that if Greater Manchester increased its tree cover by 10%, it would stabilise temperatures at or below the 1961-1990 baseline average.

In addition, trees also intercept noise and act as a visual barrier to its source.



*2018 Revision of World Urbanization Prospects produced by the Population Division of the UN Department of Economic and Social Affairs (UN DESA)

Trees have whole range of benefits and play an ever-more important role in our towns and cities, especially in the face of a climate emergency. **Trees can help to:**



CITY OF TREES IN ACTION

Policy, influence

We aim to persuade policy makers that trees and woods should feature higher on the agenda and policies should provide greater opportunity for planting as well as the protection and preservation of our woodlands.

We want to ensure that expanding tree cover is woven throughout the GM policy framework in all areas, including resilience, air quality, health, economy and carbon.

We host seminars and events throughout the year for professionals and policy makers to highlight best practice around trees planting and GI.

Projects on the ground

As well as aiming to influence we deliver projects on the ground, from large scale woodlands to creating community orchards. We plant saplings with schools and green grey streets through our Green Streets

residential and city centre street tree planting projects.

We work with partners to restore other crucial habitats such peatland and moorland, undertaking important conservation work throughout the year.

Collaborating with landowners we aim to improve their green assets and ensure trees and woods are providing the maximum ecosystem services

People power

Via our schools' projects we aim to re-connect young people to nature, providing them with greener, healthier and happier places to learn and play.

We run an extensive calendar of volunteer events, 'Citizen Forester', enabling people to engage in practical conservation work and learn more about the importance of trees, woods and wildlife.

Planting for the future

We want to make sure we plant large species of trees in order to maximise the ecosystem services as well as ensuring alternative species to the ones that are under threat from pests and diseases.

The changing climate is also a challenge for the forestry sector as projected increases in temperature, changes in the seasonality of rainfall, and an increased frequency of extreme events add complexity to species selection and the management of our trees and woods.

We use a variety of recognised tools and guides to help select species that are capable of thriving in future environments.

