Severn Gorge
COUNTRYSIDE
Trust

Climate Change Statement

Registered Charity Number: 1004508

Severn Gorge Countryside Trust and Climate Change

Existing CO2 levels in the atmosphere are already at a record high point and are causing global heating. There is now so much CO2 in the atmosphere that global heating is having dramatic effects on the environment throughout the world and significantly affecting human communities.

Following the Trust's Climate Change Declaration in November 2019, we have been looking at ways to tackle the causes of climate change. For example, by reducing our own emissions and using renewable energy for our electricity supply, caring for the land that captures and stores carbon, exploring flood mitigation options and restoring wildlife habitats that are threatened.

The focus is on CO2 emissions from fossil fuels (oil, gas, coal). The main sources of greenhouse gas emissions are the gas boiler and the Trust vehicles (Valtra Tractor, Toyota Hilux and Minibus) together with staff vehicles used for Trust business. The electricity comes from 100% renewable sources and is monitored, reduced if practicable, and reported. The gas comes from natural gas but not from a renewable source. The emissions from operational activities are 6.2 tonnes CO2 plus a further 12.4 tonnes of CO2 due to the methane emissions from the flock of Soay sheep. Whilst the sheep emit methane, they have a benefit as they graze our species rich meadows as a key means to enhance their overall biodiversity. In addition, grazing animals help to aerate and fertilize the soil, which can improve its ability to support plant life.

We continue to manage our woodlands using Continuous Cover Forestry. This form of woodland management maintains and enhances the woodland ecosystem and retains the woodland canopy that is such an important landscape feature of the Gorge. In addition, we are rewilding two of our grassland sites and more CO2 will be absorbed each and every year into the future because of these progressive changes compared to traditional grassland management.

The Trust is taking steps to eliminate, reduce and substitute our sources of CO2 emissions from our operations and activities in accordance with the greenhouse gas management hierarchy established by the Institute of Environmental Management & Assessment. We can sequester our current annual unavoidable residual CO2 emissions and our future emissions through changing the management of our landholdings. This carbon sequestration accords with the Oxford principles for net zero aligned carbon offsetting.

Changes in management

Unlike in a clear fell and replant, where the rapidly closed canopy prevents growth of understorey woody biomass, in a Continuous Cover Forestry (CCF) system, woody biomass of all sizes is encouraged through individual tree removal to increase light. Larger trees are allowed to grow beyond the traditional age of mean maximum increment, and research at one CCF site in Wiltshire has shown that even large trees, continue to add biomass and therefore carbon. CCF maintains and enhances the woodland ecosystem and is associated with improvements in biodiversity and this is critical in helping tackle the biodiversity crisis. CCF retains the whole of the complex woodland canopy that is such an important landscape feature of all the woodlands throughout the Gorge.

Maws Meadow (0.28 ha) and Haywood West Pasture (1.53 ha) are being allowed to change through natural succession from grassland that was cut or grazed into brambles and scrub and then to woodland. There were operational difficulties in managing both these fields as grasslands and there has been no management of Maws Meadow since 2019 and Haywood West Pasture since 2020. The change from grassland to woodland will create a complex vertical dimension that is rich in biodiversity. These new habitats will absorb more CO2 than the original grassland. An indication of the amount of CO2 that can be absorbed each year by these new habitats can be found in the report by Natural England on carbon sequestration by habitat - a mixed native broadleaved woodland that is 30 years old will absorb 14.5 tonnes C02e/hectare/year whereas undisturbed semi-natural grassland in long term management has negligible CO2 sequestration.

Sources

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