



Somerset
Wildlife Trust

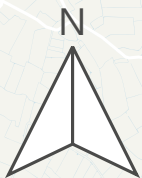


HONEYGAR
APPEAL

HONEYGAR REPORT 2022-23

A pioneering wilding project on the Somerset Levels and Moors





Honeygar

It is said that 'actions speak louder than words'. In 2021 faced with an ecological and climate crisis Somerset Wildlife Trust took the bold act of acquiring Honeygar, a former dairy farm, on the Somerset Levels for a pioneering wilding project.



AREAS ARE ALREADY STARTING TO REWET

Our aim was to put into practice theories of nature recovery as a solution to societal problems, to showcase how we can restore farmland working with nature to stimulate a new economic model for the Somerset Levels and help nature return.

By rewetting Honeygar's soils to protect its rare lowland peat, capture and store carbon and greenhouse gases, and by restoring the land for wildlife through alternative management practices, we could show how nature's recovery can have other important benefits.

We took on Honeygar to learn about what works and to create an exemplar of nature-based solutions, a site where we could demonstrate and share our ideas with others to inspire and stimulate change. It's still early days in what is a long-term project and this report provides an overview of our work to date, our achievements, challenges and successes.

Georgia Stokes, Chief Executive Officer
April 2023

Key achievements



- Honeygar purchased by Esmée Fairbairn Foundation in May 2021 and bought by Somerset Wildlife Trust in March 2022 following successful private fundraising phase.
- Public appeal launched March 2022 raising £108,025 from 1,325 donors, more than matching a very generous £100,000 gift.
- Nature-based solutions plan drafted and discussions with Natural England, Environment Agency and Somerset County Council.
- Drone and foot surveys completed - mapping topography, hydrography and drainage system.
- Initial rewetting works undertaken – bunding ditches, removing and blocking drains. (By autumn 2022 land noticeably wetter with changes to the landscape and habitats beginning to happen).



- Improvements made to entrance, paths, bridges, ditches and right of way.
- Pop-up laboratory created for staff, students and volunteers.
- Scientific monitoring equipment bought and installed to help monitor wildlife, water levels and greenhouse gases.
- Baseline habitat and species surveys completed.
- Baseline carbon and greenhouse gas data collected.
- Relationships being developed with academic institutions, including facilitating research at Honeygar by students and lecturers from the University of the West of England.



- Wilder Carbon launched with Honeygar as one of two pathfinder projects in October 2022.
- Many visits and engagement events with farmers, local communities, local and national government representatives, other Wildlife Trusts, donors, prospective funders and more.
- Honeygar Officer recruited.
- Internal Honeygar Working Group formed to lead plans.
- £3.260m raised of £3.405m phase 1 fundraising target thanks to many generous Honeygar supporters.

First steps

When we first saw Honeygar Farm it had been vacant for over two years, though some fields were being grazed by a neighbouring farmer. We acquired a site that is at the beginning of its journey to restore nature as we reduce the intensity of use and seek to restore natural processes.



HONEYGAR COVERS 81 HECTARES



OLD FARM BUILDINGS HAVE BEEN SURVEYED

Our priority in the first months was to better understand the character of the farm and to undertake practical works to secure the site and improve access.

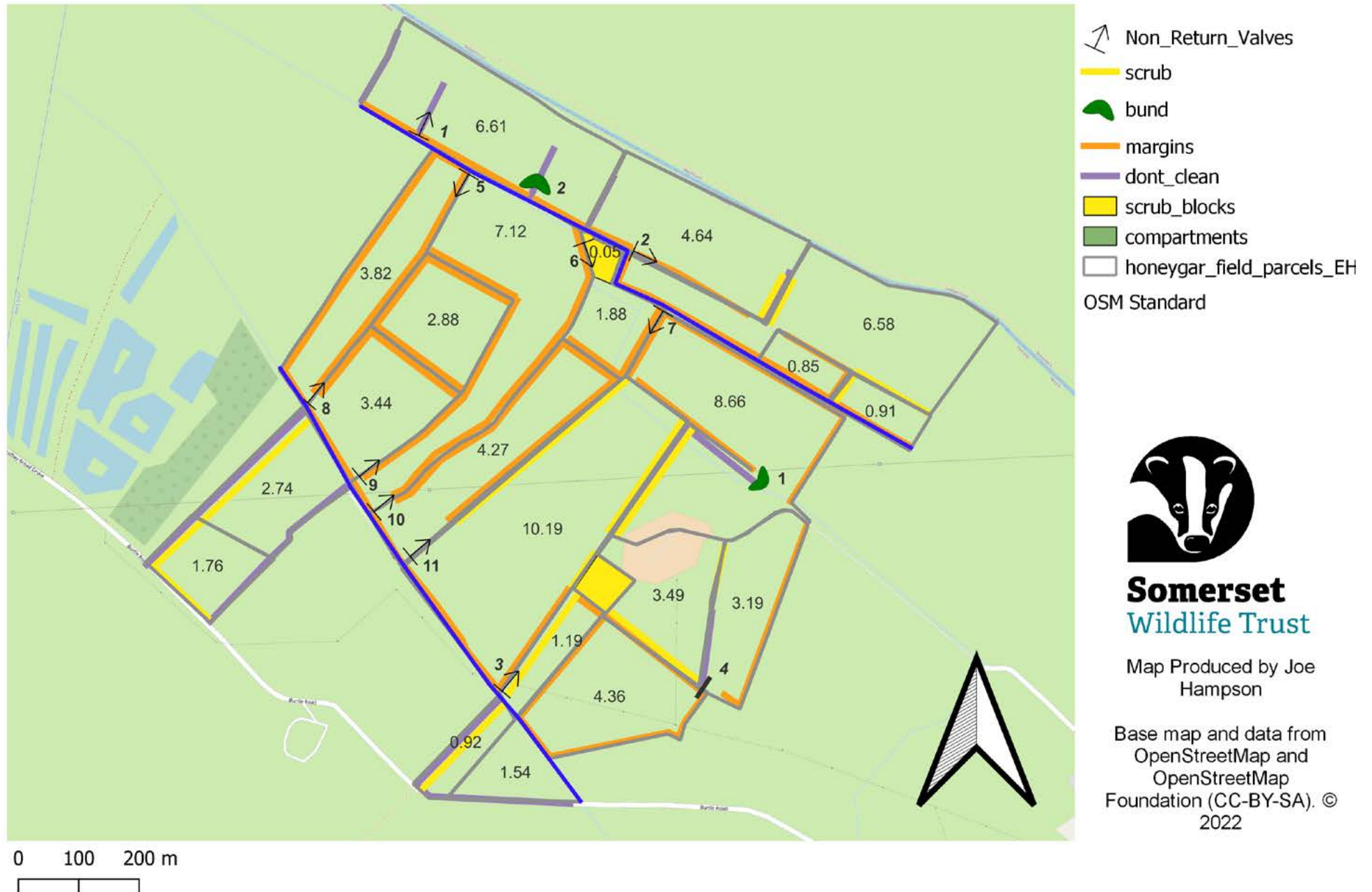
Primary drone and foot surveys were completed to create detailed topographic and hydrological maps of Honeygar and used for our early promotional video, and to locate the network of below ground drainage pipes to inform our rewetting plans.

Areas of historic interest, including the routes of prehistoric trackways and the area of the burtle, on which the farm buildings sit, were also recorded. Hedge lines and fences were checked to secure the boundaries and pathways. The boundary with the river Brue was mapped. Farm buildings were surveyed for safety and wildlife, with badger setts, bat roosts and barn owl sites identified.

Practical works have been completed by contractors to enhance access to Honeygar from Burtle Road, and to replace culverts and bridges in agreement with the Internal Drainage Board (IDB).

The public footpath across Honeygar has been made good and the route cleared, farm fields have been surveyed, and zones allocated for rewetting, wilding and carbon monitoring. A temporary portacabin now provides essential facilities for staff, volunteers and researchers.

Honeygar Farm Hydrological Interventions



Somerset
Wildlife Trust

Map Produced by Joe
Hampson

Base map and data from
OpenStreetMap and
OpenStreetMap
Foundation (CC-BY-SA). ©
2022

Initial rewetting

Water is central to everything we want to do at Honeygar. Creating habitats for wildlife, and reducing emissions of carbon and other greenhouse gases, requires a new and different approach to working with water.



SHEET PILE DAM IN DITCH TO RAISE THE WATER LEVEL

Past regimes drained peatlands for agriculture and peat extraction, depleting vegetation, fragmenting ecosystems and releasing greenhouse gases. Our plan is to reverse this practice by rewetting peat and facilitating a more natural hydrological regime that sustains water-levels allowing ecosystems to thrive and providing more space for migratory and resident wildlife.

During 2021 we identified the location and distribution of historical water structures that allowed the site to be drained. In 2022 we took action to reverse this process, removing and blocking in-field underground drainage.

Simple but effective sheet pile dams have been installed to hold ditch water levels higher. We have also blocked pipes and added clay bunds in several locations. Already we are seeing water level rise significantly across Honeygar and areas staying wetter throughout the summer and importantly in autumn and winter.

Bringing nature back

Rewetting is central to nature restoration, helping connect it as a wetland site to the wider Avalon Marshes landscape, and creating the conditions for habitats to form and biodiversity to increase.



FAT-BODIED WATER SCORPION



SNIPE

Wildlife surveys by Trust staff, supported by specialist volunteers from the Somerset Botany Group and Recorders of the Avalon Marshes (RoAM), have captured valuable baseline data to understand what species we already have at Honeygar. This is essential to monitor change and track the benefits for nature of Honeygar's wilding.

Surveys of breeding birds, invertebrates, plants and mammals have observed the welcome presence of snipe, crow, wood pigeon, gull, cormorant, mallard duck, cuckoo, swallow, grey heron, pied wagtail, Canadian goose, magpie, greylag goose, barn owl, tawny owl and even bittern. We are also trialling audio sensors to record wildlife 24 hours a day on site in partnership with Wilder Acoustics.

At least six species of bumblebee, 13 species of snail (including wandering snail and Lister's river snail), and 24 invertebrate species were recorded within the ditches, including fat-bodied water scorpion.

In some of the more botanically diverse fields and ditches supporting rushes and sedges, meadowsweet, marsh ragwort, meadow vetchling, purple and yellow loosestrife, marsh woundwort, gypsywort, bird's-foot trefoil, frogbit, rigid hornwort and giant puffball were recorded.

A year-long survey of an oak is also under way to identify the many species it supports as part of our initial surveys.



SMALL TORTOISESHELL BUTTERFLY



BLACK POPLAR

Once widespread, drainage of the Levels in the last century means the 100-year plus black poplar at Honeygar is a rare survivor. Thanks to a donation of genetically pure trees planted in 2022, it is now no longer alone.

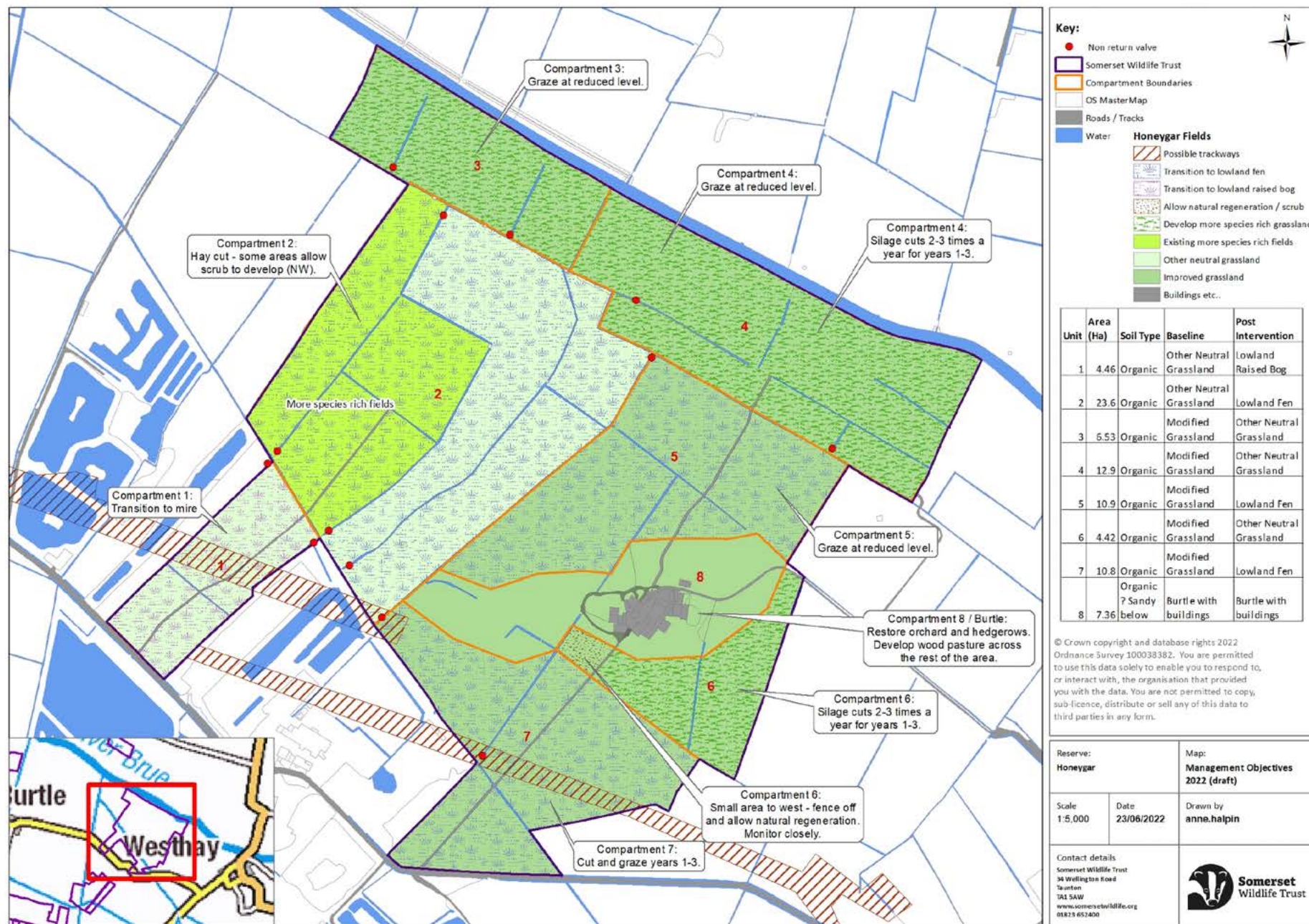
Winter splash flooding and wetter fields will encourage bird species such as great white egret, little and cattle egret, grey heron, wintering mute swan, wildfowl and lapwing, feeding snipe and nesting skylark. Seasonal pools and standing water will benefit amphibians such as great crested newt, palmate and smooth newt, frogs and grass snakes.

Improving ditch habitats with improved water quality, increases oxygen levels. Stabilising water levels and reducing inputs should result in botanical species such as arrowhead, lesser water parsnip, crowsfoot, spearwort and bladderwort doing well, and increased dragonflies, damselflies, water voles, otters and a variety of ditch invertebrates and snails.

Grazing and cutting plus wide field margins will support a wider variety of plants species, including marsh marigold, birds-foot trefoil, meadow rue, great burnet, meadowsweet, devil's bit scabious, thistles, buttercups and red and white clovers. We expect butterflies, moths, spiders, grasshoppers, beetles, flies, dung beetles and bees all to increase. Brown hare, roe deer, barn owls, tawny owls, swallows, skylarks and finches will also benefit.

As Honeygar rewets over the coming years, biodiversity will improve though we expect the wildlife present will vary over time. Our monitoring programme means we will understand how the changing conditions influence the wildlife present.

Habitats, grazing and cutting at Honeygar





FOX ON CAMERA TRAP MARCH 2023

Cutting-edge technology

In partnership with Wilder Acoustics, cutting-edge bioacoustic sensors have been placed at eight locations across Honeygar to identify birds, grasshoppers and crickets by their sound footprint (similar to a bat detector). This exciting pilot is a new way to monitor species around the clock. As well as recording the bird species present in the audible range, in collaboration with RoAM, a group of specialist local volunteers, the sensors will start to be 'trained' to recognise the calls of grasshopper and cricket species, and potentially further taxa, placing Honeygar at the heart of pioneering monitoring techniques.



MARSH ORCHID JUNE 2022



ELEPHANT HAWKMOTH DURING AUGUST 2022 SURVEY

Peatlands are important ecosystems and carbon stores

Vegetation including sphagnum mosses



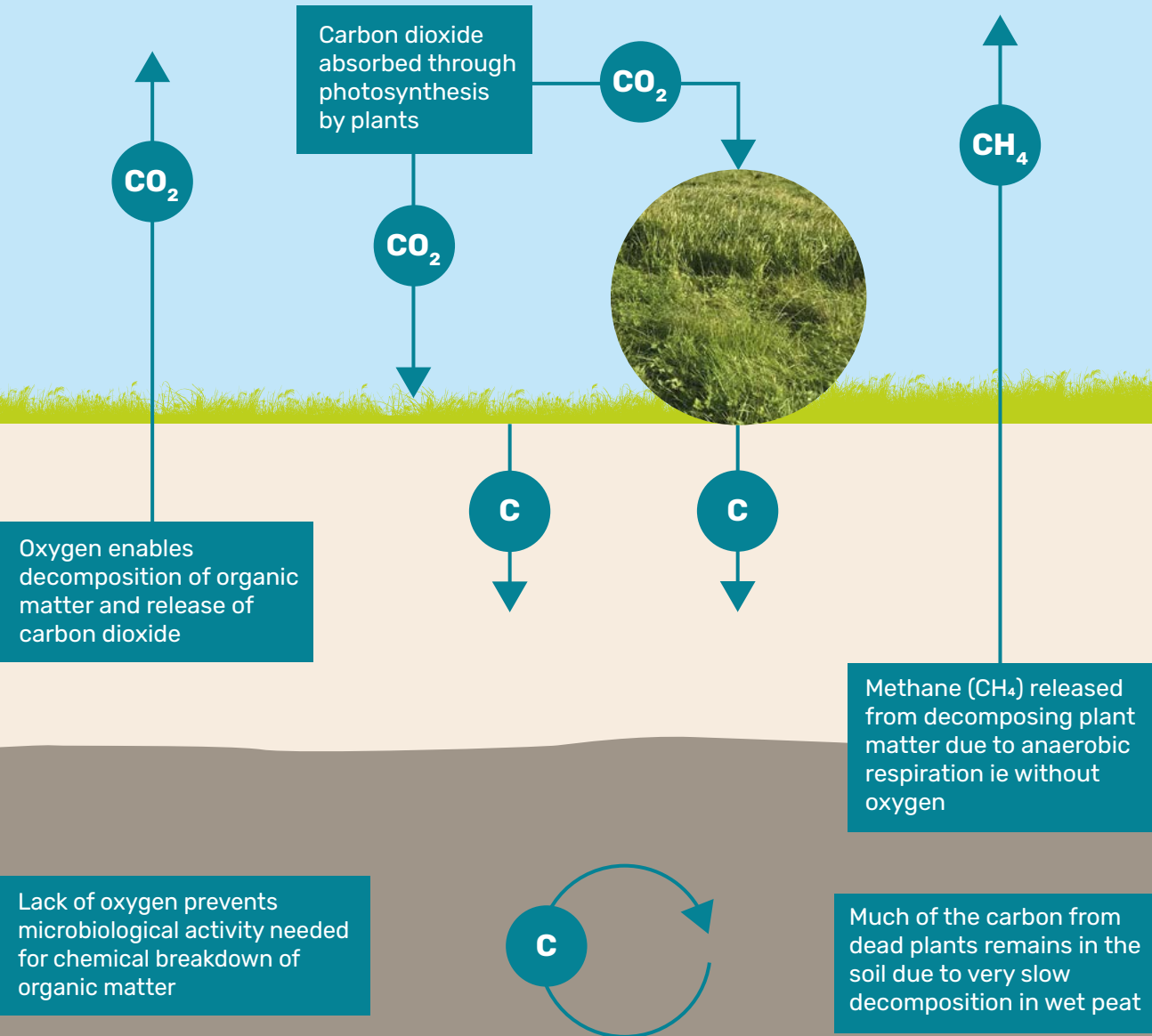
Dry (oxic) peat
Oxygen present in dried out/disturbed peat



Wet (anoxic) peat
No oxygen present in undisturbed wet peat formed over thousands of years



Mineral subsoil



Carbon and greenhouse gases

Stopping the dried out peat soils from emitting carbon and greenhouse gases by rewetting is a core part of our plans. Our vision is to use the wilded site to demonstrate how nature-based solutions can sustain wildlife and livelihoods on the Levels.



Wilder Carbon
Native habitats. Natural solutions.

Wilder Carbon is a landmark initiative developed by Kent Wildlife Trust which aims to rapidly scale up native habitat restoration in the UK by leveraging green carbon finance. The Wilder Carbon standard ensures that conservation projects delivered under the scheme, like Honeygar, result in long-term carbon lock-up and real biodiversity gains through validation by Soil Association Certification. Companies must demonstrate they are reducing their own carbon emissions to be approved buyers.

Carbon Credits covering 74 hectares of peatland at Honeygar are now for sale, which will generate funds for Honeygar's long-term management over 50 years. This includes an area to be known as the Heather Corrie Wilding Area, where there will be no general access.

Monitoring carbon and greenhouse gases and peat water levels is essential to know the impact of our work. In partnership with the University of the West of England, we have installed a weather station and carbon flux monitoring equipment. A field studies programme is capturing data and testing methodologies.

Data on soil depth, soil moisture content and soil organic matter, carbon dioxide respiration (carbon flux) and methane flux have been collected to give us a clear baseline on greenhouse gas emissions. Annual monitoring will compare how these change as the site rewets and the peat is restored.

Peat movement monitors are being used to track and record the expansion and contraction of soils. Dipwells have been installed, two metres into the peat, complete with data loggers to record the height of the water table in real-time, giving us a detailed understanding of the lateral movement of water through the peat and across Honeygar, from the rhynes (ditches) to the centre of fields.

Collectively the data will provide insights into the effectiveness of the restoration techniques being trialled and the science behind rewetting peat. We are testing new green finance initiatives and sharing our learning with landowners to find out how they could generate income through payments for ecosystem services. To this end, Honeygar is one of two pilot projects through Wilder Carbon, a high-integrity carbon credit scheme.

Significant interest in Honeygar

Honeygar has already attracted a huge amount of interest from individuals and groups, locally and nationally. We have held open days, events and organised visits throughout the year.



SUPPORTER VISIT TO HONEYGAR

There have been community days for neighbouring farmers, landowners and local residents, tours for officials from Natural England, Environment Agency, Defra, Wildlife Trusts and other environmental bodies, as well as visits by local councillors and MPs. Introductory days and an environmental sampling course for staff and students from the University of the West of England (UWE) have been held, and bespoke events for major donors, prospective funders, our volunteers and other people.

Honeygar has featured in local, county, regional and national press with staff interviewed on the BBC and independent radio, and regional BBC and ITV news. The Honeygar film on YouTube features fantastic drone footage. The message about Honeygar is also being shared through our website and social media, and a regular feature in *Somerset Wildlife*, our members' magazine.



NEIGHBOURS' OPEN DAY AT HONEYGAR

Inspiring change

An important outcome from our work at Honeygar is that it inspires and supports landowners to manage land in a more nature- and climate-friendly way. This is already happening.



CATTLE CONTINUE TO GRAZE AT HONEYGAR BUT AT MUCH LOWER DENSITIES

On the back of an early visit to Honeygar by our farming neighbours, 13 landowners have now joined us in a pilot project to support the development of new government payment schemes, known as Environmental Land Management Schemes. The project's goals are to help conserve and protect Somerset's peatlands, and develop green finance and whole farm business models with payments for ecosystem services, which would fund a new way of managing lowland peatlands.

Covering almost 800 hectares of the Levels and Moors, and potentially growing to include a larger area, this extension of our approach at Honeygar will see landowners working together to develop new land management plans, underpinned by blended finance/ green finance options, providing multiple benefits to society and nature.

Our wilding approach at Honeygar has further been instrumental in securing Defra funding with partners to restore lowland peatlands at Honeygar and elsewhere. This is the first time the technique has been used on lowland peatlands in Somerset, or anywhere in the country, as previously it has only been used to restore upland peatlands.

Honeygar's influence is already extending beyond its boundaries.

Looking ahead

Honeygar is a long-term project and our focus in 2023 will include installing more bunds to hold more water on site and rewet the peat further. We also still need to raise £145k to achieve our phase 1 fundraising target.



MORE WATER IS ALREADY BEGINNING TO BE HELD



BLOCKING DRAINS IS HELPING HONEYGAR BECOME WETTER

We have practical work to deliver. For example, seven further steel piling bunds will be installed to support rewetting now consent has been received from the Internal Drainage Board.

The rewetting is only just beginning and long-term and improved monitoring of greenhouse gases, wildlife and land management practices will continue. We need to sustain the growth in knowledge at Honeygar, expand our networks, partners and stakeholders, and further promote Wilder Carbon.

Honeygar's farm buildings, sited on a raised 'island' known locally as a burtle, are in a poor state of repair and we will need to replace them with more environmentally friendly and workable buildings in the years to come. An innovative centre for training in nature-based solutions is under consideration and we are starting to explore its viability as well as developing our vision with architects and planning experts, plus ways to fund this second major phase of work.

Gold standard mitigation works for the wildlife, including bats and badgers, using the buildings will be needed. Working with our ecological consultancy colleagues at First Ecology, surveys are due to be undertaken in 2023 so plans can be made to ensure the wildlife present will still have the homes they need.

Thank you for your support

The fantastic support we have had for Honeygar means we are now so close to achieving our £3.405m phase 1 target, with just £145k still to raise. Donations of all sizes have been received and we thank you all for pledging your support for Honeygar, including many of you who wish to remain anonymous.



TRACK LEADING TO BURTLE AND HONEYGAR BUILDINGS

Trusts and grants

Banister Charitable Trust
Garfield Weston Foundation
Golden Bottle Trust
Green Recovery Challenge Fund
John Swire 1989 Charitable Trust
Nature for Climate Peatland Grant Scheme-Discovery Grant
People's Postcode Lottery
Steel Charitable Trust

Honeygar Pioneers

Barbara Cheney
Dame Margaret Drabble
Mark and Marnie Franklin
Patrick Thomson
Professor Michael Sleigh

In memory of Heather Corrie

The estate of the late David Wishart

1,325 people who donated to our Honeygar appeal

To discuss progress to date, please contact:

Katie Arber

Director of Fundraising & Marketing and Deputy Chief Executive
Telephone: 07872 871457
Email: katie.arber@somersetwildlife.org

Philip Kiberd

Grants & Project Development Manager
Telephone: 07596 327495
Email: philip.kiberd@somersetwildlife.org



Somerset
Wildlife Trust

Somerset Wildlife Trust

34 Wellington Road
Taunton
Somerset TA1 5AW
01823 652400

www.somersetwildlife.org

Charity number 238372 | Company number 818162