Helston Climate Action Plan

Helston Climate Action Group, September 2019

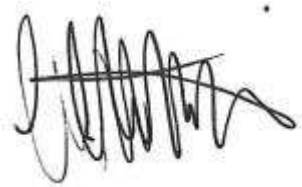
message from the mayor

It was unanimous. There is no doubt in our hearts and minds as a Council that the Climate Emergency should underpin every decision we make and every action we take.

Our aim is to encourage this town and the surrounding area to achieve carbon neutrality. This will need the support of everyone, our families, our schools, our businesses, our community groups, our visitors, to take every opportunity to tackle the issues that affect the future of our planet, our children and our wildlife.

All of us can make a difference. Use your voice, your devices, your lifestyle choices or your time and talents. The collective action adds up to urgently needed social change. Let our action from the ground level be a demonstration to the government that we mean business.

We need them to support underserved communities and to urgently reduce climate risk.



Councillor John Martin
Helston Town Mayor
September 2019

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foreword

Climate change is the greatest environmental challenge the world has ever faced, but we can do something about it. We are the last generation that can limit the devastating effects of global warming. We have the knowledge and the tools, but need to take urgent and radical action. This means all of us, individuals, families, communities, and governments, from the local to the global.

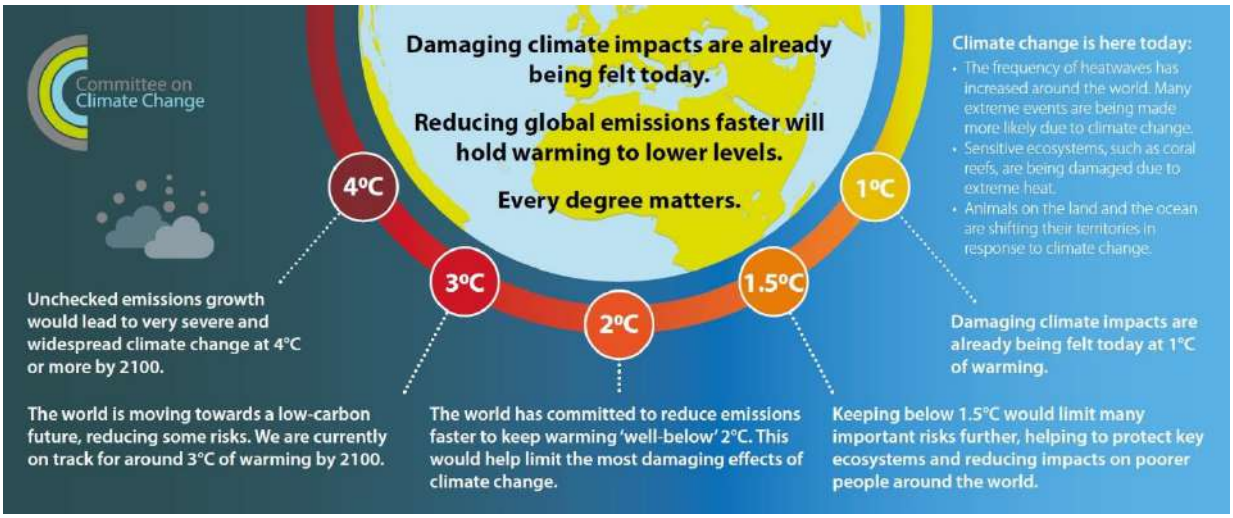
In October 2018 the Intergovernmental Panel on Climate Change (IPCC) sent a wake-up call to the world[1]. It was already widely accepted in the scientific community that human activity is responsible for an increase in global temperatures, largely due to the burning of fossil fuels. In 2015, 195 countries signed the Paris Agreement[2], recognizing that allowing average global temperatures to rise more than 2°C above pre-industrial levels would put the planet at risk of severe adverse effects, such as an increase in extreme weather events. The signatories, including the UK, agreed to a goal of limiting global temperature increase to well below 2°C, and pursuing efforts to limit the increase to 1.5°C.

"The future looks very alarming indeed, but it is not too late to act. We still have time if we act now with determination and urgency."

Sir David Attenborough, Climate Change – The Facts (April, 2019)

The IPCC report declared that at current levels of greenhouse gas emissions, the planet will reach 1.5°C of warming between 2030 and 2052. It went on to compare the likely outcome of a world with 1.5°C of warming with a world where average temperatures had risen by 2°C.

With a rise of 2°C, the world will be a very different place indeed[3]. At 1.5°C warming, the Arctic is projected to be completely ice free once every hundred years; at 2°C it is likely to be once a decade. At 2°C there will be virtually no coral reefs left in the ocean, and there will be mass extinction of plants and animals due to habitat loss. Reduced crop yields, changes in availability of fresh water, and sea level rises are likely to result in societal upheaval, including mass migration and an increase in conflict[4]. Up to 400 million more people will be frequently exposed to extreme heatwaves, and 180 million exposed to food insecurity due to increases in price and reduction in nutritional quality.



The message from the IPCC is stark, and urgent. We need to do all we can to limit earth's warming to 1.5°C. The IPCC estimated that in order to do that, global net emissions of carbon dioxide would need to fall by 45% from 2010 levels by 2030 and reach net zero by around 2050. Developed countries have an obligation to reduce current emissions more rapidly on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere, and have already benefited from industrialisation. The Kyoto Protocol[5], to which the UK is a signatory, recognizes this and sets binding targets on these countries, essentially giving developing countries a chance to 'catch up' in building a robust infrastructure. While we talk about transitioning to electric vehicles, it's good to remember that a large portion of the world doesn't have ready access to electricity, or even fresh water.

We are also facing ecological collapse: nature is in trouble. Throughout history, the human race has increasingly encroached on the space occupied by wild animals and plants to the extent that their survival is threatened, in some cases critically. Many species are already extinct.

The World Wildlife Fund's 2018 Living Planet report[6] outlines how much nature we are losing. It shows an overall decline of 60% in species population sizes between 1970 and 2014, while current rates of species extinctions are 100 to 1,000 times higher than the background rate (the extinction before human pressure became a prominent factor). Other indicators measuring different changes in biodiversity all paint the same picture – that of dramatic, continued loss.

A separate study found a 75% collapse of flying insects in protected areas in just 27 years[7]. Flying insects are hugely important in our ecosystem, aerating the soil, controlling pests and of course, pollinating plants. In May 2019 the Intergovernmental Platform for Biodiversity and Ecosystem Services (IPBES) stated

that around 25% of the world's species are now at threat of extinction due to habitat loss and the effects of climate change[8].

We urgently need to restore ecosystems by allowing nature more space, and more of that space should be protected. We would like to see the return of an abundance of wildlife, both for its own sake and also because our own survival depends on it. Healthy plant life means more carbon capture which decreases the carbon dioxide in the atmosphere. It holds on to and regenerates soil. It soaks up excess rain water and prevents flooding. It protects us from the effects of extreme temperatures and drought, and therefore potential food shortages.

The scale of the challenge

The scale of the challenge is unprecedented, and much of the action required will be at the governmental level. However, there is much we can do at all levels of society. As individuals and as members of our community, we urgently need to make changes to reduce our carbon footprint. However, we can achieve much more when we work together as a community.

"We all have a choice. We can create transformational action that will safeguard the living conditions for future generations. Or we can continue with our business as usual and fail."

Greta Thunberg, Davos Address (Jan 2019)

We can contribute by supporting local growers and businesses, making us less reliant on long supply chains involving lorries, boats and planes travelling from far afield. This will reduce carbon emissions and help make us more resilient, and less likely to be affected by a weather event that suddenly empties supermarket shelves due to panic buying. Do we really need strawberries in March, and air-freighted avocadoes?

We can promote biodiversity and help restore our natural world. You will see projects aimed at doing this in the pages ahead.

We can exercise our democratic rights and interact with elected officials to make the changes necessary. You could write to your MP to press for all new housing to be built to sustainable standards, for example. You could participate in Helston Town Council meetings, or attend a planning meeting and help keep officials focused on the real issues.

You could join us in Helston Climate Action Group, or in any of the projects detailed in this plan. We need many more people to join in this effort.

The time for simply 'doing our bit' by putting out the recycling and installing energy-saving lightbulbs has passed. We still need to do those things, but now is the time for transformational change. The good news is that even with the tools and knowledge available to us now, we can still limit the adverse effects of climate change if we have the will to work together to do so. Responding together may create new opportunities that will make us happier, healthier, and more resilient. This Climate Action Plan is aimed at giving you some ideas of how we can achieve our goals locally, and to inspire you to join in the effort.

It will take time to begin to slow the effects of climate change. Global temperatures will continue to rise for some years after net emissions reach zero. We are going to be hearing news stories of melting glaciers and more frequent heatwaves whatever action we take. An important benefit of facing this challenge as a community is the support that we will be able to offer each other when the outlook is so uncertain. Building a stronger community could hardly be more essential in the years ahead.

 **Working together as individuals and families.**	CO_2 - Reduce carbon by cutting down on meat and dairy consumption, throwing away less food, switching to renewable energy sources, installing energy efficient lightbulbs, reducing (or eliminating) air travel, insulating your home, and drying your washing on the line. - Promote biodiversity by planting wildflowers, creating homes for bugs, birds and other wildlife, leaving wild areas in your garden, avoiding the use of chemicals in the garden, buying organic food or growing your own.
 **Working together as members of our community.**	CO_2 - Reduce carbon by contributing to community energy projects, sharing your knowledge with a neighbour, helping an elderly person clear their loft before insulation is installed, joining a car sharing initiative. - Promote biodiversity by helping with a tree-planting project (*such as Forest for Cornwall*), or joining in with community growing projects.
 **Working together as part of a democracy.**	CO_2 – Let your elected representatives know you want policies introduced that will reduce carbon emissions, such as changes to planning laws, taxing aviation fuels, promotion of public transport, making it easier to walk and cycle in towns like ours. – Lobby for controls on pesticides, and promotion of afforestation and rewilding. Demand international action to protect and restore tropical rainforests, and to keep fossil fuels in the ground.

introduction

What is a climate action plan?

For over ten years, cities, towns, and local authorities have been producing Climate Action Plans in response to the climate crisis. They vary in size, scope, and practicality. In July 2019, Cornwall Council produced its own Climate Action Plan[9], which sets out various pathways for bringing Cornwall to carbon neutrality by 2030, and the ways Cornwall Council can help bring this about, directly and indirectly.

Our goal in writing this Climate Action Plan is not to replicate the work done by Cornwall Council, but to provide you with a handbook of ideas and practical projects that we believe will help Helston on its journey to carbon neutrality. Some of these can be put into action at the individual level, but others will need the combined efforts of the whole Helston community.

We hope this document will inspire you to take part in strengthening and reshaping our corner of the earth. Helston Climate Action Group will be co-ordinating some of the projects, and working with many partner organisations to implement others. These include Helston Town Council, the National Trust, South Kerrier Alliance, Transition Helston & District, Helston & Lizard Food Bank, Plastic Free Helston, Helston Community College, RNAS Culdrose, and Helston in Bloom.

We do not consider this plan to be the final word on climate change in Helston by any means, but the first step in a long journey. We anticipate undertaking many more projects than those listed in this document, some of which will not have been thought of yet. We will take time to reflect on progress, review our understanding of the science, seek out best practice and up-to-date guidance. To the extent possible, we will measure our impact to ensure that what we're doing is truly reducing carbon emissions and promoting nature restoration, while leaving no one in our community behind.

Why now?

As described in the foreword, scientists believe we have very little time to cut carbon enough to prevent warming from reaching 1.5°C by 2030. Despite repeated warnings from the scientific community and pledges of action from international governments, CO_2 continues to rise: in 2018 global emissions of CO_2 rose by 1.7%[10].

Even when we reach carbon neutrality the environment will continue to warm, due to the effects of the carbon already in the oceans and atmosphere. Turning the climate crisis around is like steering an oil tanker, so it is no good waiting for adverse effects before doing something about it. Indeed, climatologists have found that recent heatwaves and extreme weather events have already been made more likely, due to climate change[11]. As the proverb says, the best time to plant a tree is twenty years ago, the second best time is now.

Who is writing this plan?

This plan has been written by Helston Climate Action Group (HCAG), established in March 2019 after Helston Town Council declared a climate emergency. HCAG comprises Helston town councillors (including the Mayor), Helston Town Clerk, members of Transition Helston & District, and other members of the Helston community. As we have worked to collect ideas from across the community, we have had input from many groups and organisations, and concerned individuals.

We are not experts in climate science, and this is not a scientific report. However, we have worked hard to ensure that the ideas presented in this plan are based on sound science, and will make a meaningful contribution to reducing carbon emissions, support nature restoration and build resilience in our town and the surrounding area.

Who is it for?

If you are reading this plan because you are concerned about the future of our planet and want to make a real difference, then this plan is for you. If you are a resident of the Helston area, some parts will make more sense as they deal specifically with our community and our unique space in the world. We hope that everyone reading this will find inspiration and practical ideas.

For the Helston reader, we hope that you will be moved to join in with some of the projects you'll read about, or suggest ideas of your own. Perhaps you are already working on a project that is in line with our climate goals. If you are, please let us know so we can spread the word, and provide help if we're able.

You can contact Helston Climate Action Group via our Facebook page, or email us at **climateactiongroup@helston-tc.gov.uk**.

Structure of the report

The remainder of this report broadly falls into two main parts. First, we will provide a picture of where we are now in terms of carbon, and the outlook for the future. In this section we will be describing how Cornwall and Helston have tried to

measure their carbon use so that we have a baseline to work from. Then we will talk about some of the risks that climate change presents to our region, and our town specifically. We will also explain what Helston Town Council and other partner organisations have already done to address environmental issues.

Second, we set out the projects that make this plan a practical handbook. This section will include an explanation of how we collected the many ideas suggested by the Helston community, and formed working groups to look at specific topic areas, such as projects related to energy and transport.

We explain how ideas were considered for their contribution to social and environmental goals. We also describe how we assessed their likely benefits in six key areas: carbon, nature, health and wellbeing, economy, equity, and resilience. Finally, we look at how projects have been prioritised, and how we selected a number to get started on immediately.

where are we now?

In order to decide how best to move forward, we need a clear sense of where we are now, based on the best science available. This helps ensure that we put our efforts into projects that will make the most difference. This section looks at what work has already been done to assess carbon emissions at the Cornwall and Helston level. We also look at some of the likely impact of climate change on our region and our town. Sometimes we can feel disconnected from the ice melt in the Arctic, or when fires are burning in California, Greenland, Brazil or Australia. But the impacts of climate change are already being felt across the world, and they will be felt here in Cornwall.

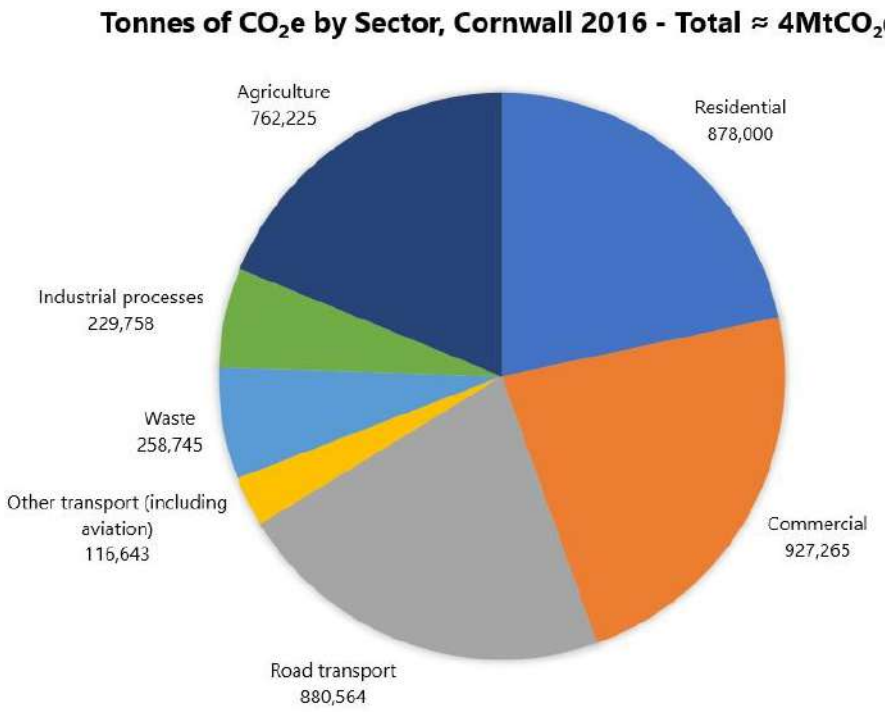
We will also look at what Cornwall and Helston Town Council have already done about addressing this situation, and what is planned for the future.

Cornwall's carbon footprint

In June 2019, The University of Exeter provided Cornwall Council with a Greenhouse Gas Inventory for 2008 to 2016 (*see Cornwall Council's 'Climate Change Action Plan'*[12]). This highlights the sectors that are most responsible for carbon emissions in Cornwall, which are broadly in line with national figures.

The inventory includes other greenhouse gases besides CO_2, attributing CO_2-equivalent (i.e. CO_2e) figures for methane, nitrous oxide, and fluorinated gas emissions.

The overall figure for Cornwall, of around 4 megatonnes (4,000,000 tonnes) of CO_2 is equivalent to running approximately 850,000 passenger vehicles driven for one year. Exeter University's inventory suggests that in Cornwall we have reduced our carbon footprint by just under 19% between 2008 and 2016. This is roughly equivalent to taking 200,000 passenger vehicles off the road[13].



According to Cornwall Council's research, most of the reductions in emissions in Cornwall have come from decarbonising our electricity, with some coming from improved efficiency in heating our homes and businesses. Heating remains a large source of our emissions, with the other main contributor being road transport (22%). With many properties still being heated by gas, oil, and coal, reducing carbon emissions from buildings will prove a significant challenge. Likewise, with almost all vehicles running on petrol or diesel, the way we move around will need to be completely rethought. Although we will need to switch to electric vehicles, we cannot expect them to replace all our current petrol and diesel vehicles. To replace the 31.5 million cars currently in the UK with electric vehicles would require almost double the entire world's cobalt production[14]. We will need to drastically reduce the number of cars on our roads.

In any feasible future scenario, there will always by some carbon emissions. So in order to reach carbon neutrality we need to take carbon out of the atmosphere. This is referred to as sequestration or drawdown. The easiest way to take carbon dioxide from the atmosphere is to plant trees. In July 2019, Cornwall Council announced a 'Forest for Cornwall', a plan to plant trees on a projected 8,000 hectares of land. This is anticipated to be able to draw down around 1% of our current (2016) carbon emissions when mature, i.e. 40,000 tonnes of CO_2. This will add to the 3.5% of Cornwall's emissions that are already captured by land use and forestry activities, and the figure should continue growing as time goes on.

Eventually, Cornwall Council estimate that natural drawdown could account for around 9% of our current total emissions by 2050, with this percentage increasing

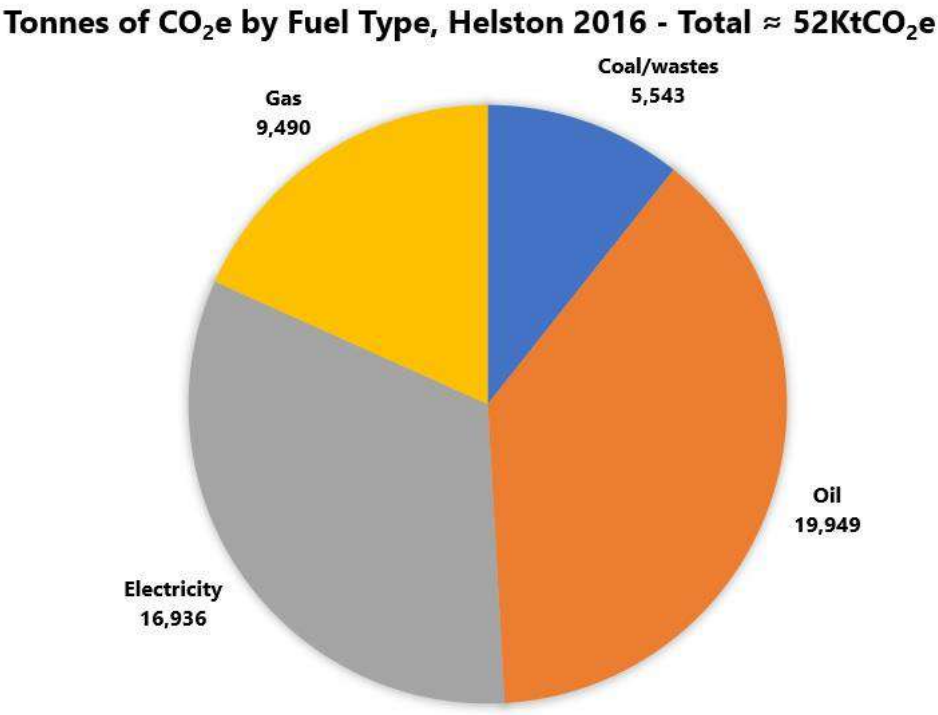
as our emissions fall. As noted in the introduction, carbon emissions are still increasing nationally, so we need to reduce emissions and begin planting as soon as possible to have the most effect.

Helston's carbon footprint

Rather than assume Helston's emissions are in line with Cornwall's, Helston Climate Action Group decided to find out. In May 2019, Helston Downsland Trust commissioned Community Works to produce a carbon audit for Helston[15]. The aim was to provide baseline data and to indicate the areas where we can make the biggest impact on reducing the town's carbon footprint.

The report focuses on direct energy use in the Helston area, specifically heating, lighting, and transport. Consumption (i.e. the greenhouse gases embedded in the goods we purchase), was not included due to the lack of recent data, but should not be ignored as it is likely to represent a significant part of our carbon footprint. Nationally, greenhouse gas emissions generated by imports to the UK account for roughly 45% of our carbon footprint, and rose 43% between 1997 and 2016[16]. The contribution of RNAS Culdrose to the town's carbon footprint was also not considered at this time.

In 2016, Helston's energy demand was 193,000MWh, equating to about 52,000 tonnes of CO_2e.

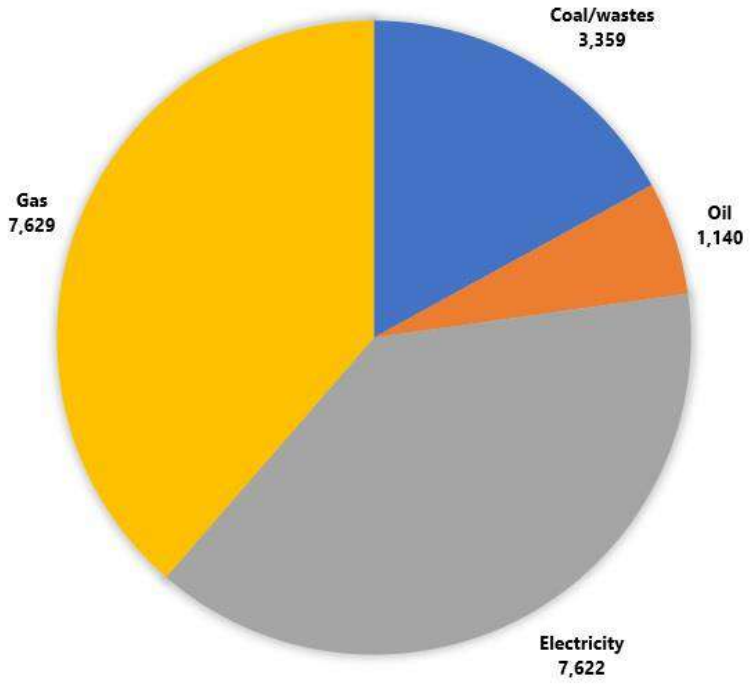


The chart clearly shows that oil is by far the biggest contributor to our energy demands in Helston, with other figures showing that approximately 85% of it being

used for travel. Clearly, moving away from fossil fuel use in transport will be a major part of reaching carbon neutrality.

When considering domestic energy use, gas and electricity make up the largest portion, representing around 80% of our energy demand. Surprisingly, domestic coal use still represents around 5% of our total energy demands! The full Helston Carbon Audit will soon be available on the HTC website.

Tonnes of CO_2e by Fuel Type, Domestic Energy, Helston 2016



What does Climate Change mean for Cornwall and Helston?

As an extreme Atlantic coastal area, Cornwall has a generally temperate maritime climate. Our peninsula is particularly exposed to wind, putting us at increased risk of storms, as well as making us a great location for wind turbines. We have already seen the impacts of severe storms recently, for example in Porthleven (February 2014) and Coverack (July 2017).

No one can say whether an individual weather event has been caused by climate change, but flooding caused by intense or prolonged rainfall, as well as by sea level rise and coastal storm surges, has become more likely in recent years and this trend is expected to continue[17].

Within Cornwall there are 27 locations that are at significant risk from flooding or coastal erosion[18]. These include areas where important transport links are located, including key routes in and out of Cornwall. A single train line connects Cornwall to the rest of the UK, and most remember the storm damage done in Dawlish in

February 2014, leaving 80 metres of track suspended in mid-air. Failure to mitigate climate change will not only leave many of our communities vulnerable, it also risks leaving us geographically isolated as a region.

Flooding events present an immediate risk to life and a risk of water-borne infection but there are longer-term impacts on health, including mental health. While experiencing a flood is the primary cause of stress for people who are affected, it is important to remember that the stress and strain associated with dealing with cleaning up and recovery may also present a challenge[19].

Changes in the climate have implications beyond the weather, and will impact on all aspects of our society and the economy. Wetter, stormier winters and hotter drier summers will directly impact biodiversity, water resources, food security, infrastructure, health, tourism, and agriculture[20]. We saw how easily supply chains could be disrupted when Cornwall experienced unusual levels of snowfall in February 2018, quickly emptying supermarket shelves.

There will be a lot of work involved in adapting to these risks, including the design and location of buildings and infrastructure. The more we re-localise, i.e. support our local growers and suppliers, the less susceptible our supply chains will be to these interruptions.

One likely local impact is the effect of rising sea temperatures on fish stocks. A recent study found that an overall reduction in yield has occurred over the past 80 years, with some regions (including the North Sea) experiencing declines of up to 35%[21]. Although some species are predicted to respond positively to warming waters, the majority will experience a negative impact on growth. As our world warms, it is vital that we all support sustainable fishing. Cornwall Wildlife Trust provides useful information on this at the Cornwall Good Seafood Guide website[22].

Cornwall is notably more deprived than other areas of the UK, and indeed Europe. A 2015 report found that 44 of Cornwall's neighbourhoods were in the 20% most deprived in England, a figure that had risen from 33 in 2010[23]. Cornwall Community Foundation reports that wages in Cornwall are 23% lower than the national average, and there is significant in-work poverty[24]. Over one in four (28.9%) of children in our parliamentary constituency are in poverty[25] and the impact of climate change is likely to impact poorer communities disproportionately. Helston also has a higher than average population of people over 65 who live alone[26].

People living in poverty or isolation are more exposed to climate damage, more susceptible to its effects and less able to recover[27]. We will need to ensure that the

action that we take here in Helston is sensitive to the existing predicaments and needs of the most vulnerable members of our community, both now and in the future.

What has already happened in Cornwall and Helston?

In January 2019, Cornwall Council declared a climate emergency and set a goal for Cornwall to reach carbon neutrality by 2030. In March 2019, Helston Town Council followed suit, also declaring climate emergency and setting the same goal of becoming carbon neutral by 2030. This put us in line with other communities who have set a 2030 goal, including Bristol, Gloucestershire, and Edinburgh.

In July 2019, Cornwall Council published its Climate Change Action Plan, highlighting some of the results Cornwall Council has already achieved in creating a cleaner environment, and setting out a pathway towards reaching carbon neutrality. The plan set out projects that can be achieved directly (such as transitioning to electric vehicles for staff), and others that will require input from other stakeholders, but can be facilitated by Cornwall Council. These include the Forest for Cornwall, and a plan to fully retrofit houses with insulation. Finally, they set out a number of 'asks' for national government, including the removal of the artificial barriers to onshore wind and solar, which will be of particular benefit to Cornwall, whose geography is well suited to benefiting from both. Cornwall Council will also be calling for an early ban on the sale of new diesel and petrol vehicles, and an introduction of 'polluter pays' carbon taxes.

The work of Helston Town Council

Just as Cornwall Council has made efforts to address climate change before the declaration of a climate emergency, Helston Town Council has long been aware of environmental concerns, and has worked to address them. In 2011, the council proposed installing solar panels on the roof of the Guildhall, but this project stalled due to planning restrictions at the time. With the widespread recognition of the climate emergency, it is expected that planning restrictions for such projects will be eased, and the proposal will be revisited.

In 2016 Helston Town Council adopted an environmental policy, aimed at reducing its impact on the environment, and providing suitable training to council staff. It has also been recycling for several years, and runs a used battery collection scheme. The council has made a point of buying supplies sourced from recycled material, from stationery to street furniture.

In 2018 the council signed up to the water 'Refill' scheme and actively promotes it. The scheme addresses plastic pollution by making it easy for people to find water refill stations. Many businesses on Helston's high streets, as well as the Guildhall, will happily refill water bottles thanks to the council's promotion of the scheme. You can fly the flag for Helston by buying a reusable water bottle printed with the Helston town crest. These are available from the Guildhall, with profits going to the Mayor's charity fund.

Helston Town Council was also instrumental in launching the Plastic-Free Helston campaign in January 2019, and is represented on the project by the Mayor, with the Deputy Town Clerk administering the group. To help Helston become plastic-free, the council has banned the sale of helium balloon on Flora Day, and the use of balloons and plastic confetti at Town Council venues. Council staff use refillable pens instead of disposable, and use glassware and crockery rather than plastic cups and plates for council events. The council also buys its cleaning materials in bulk to decant into reusable spray bottles, reducing packaging.

In order to reduce its energy use in the Guildhall, Helston Town Council insulated the Guildhall roof space, replaced incandescent bulbs with energy efficient bulbs, and carefully manages the way it heats the building. In July 2019, the council switched to a renewable electricity supplier, and committed to offsetting the carbon from its gas usage.

In June 2019, in recognition of its environmental activities, the Helston & Lizard Peninsula Friends of the Earth presented Helston Town Council with the John MacKay Award in recognition of their commitment to work with their local community to address the climate emergency and plastic pollution.

None of us can achieve our carbon goals in isolation and Helston Town Council recognises that support from Cornwall Council and national Government is vital in meeting the challenge. Until changes are made to the national planning regulations it will not be possible for Helston Town Council to insist that new buildings are built to net-zero standards. However, within the bounds set by national government and Cornwall Council, Helston Town Council will do all it can to promote initiatives that will help bring the town to carbon neutrality by 2030.

Helston Town Council's indirect activity will include supporting relevant initiatives proposed at a national and at the Cornwall level, such as the Forest for Cornwall.

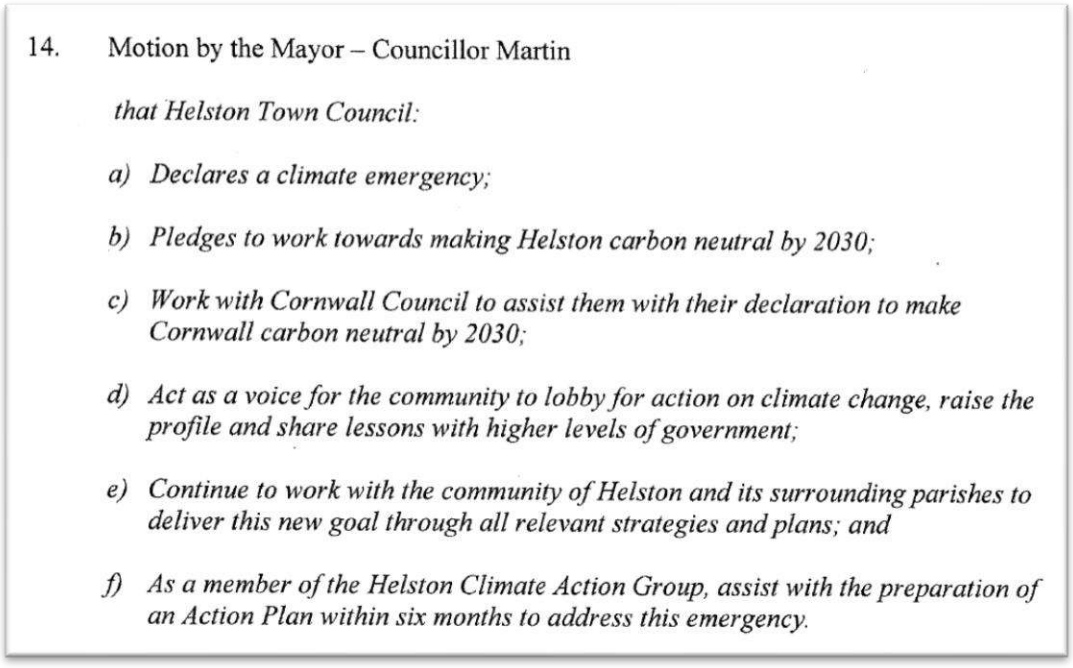
This is in line with the council's stated commitment (from the Climate Emergency Declaration) to "act as a voice for the community to lobby for action on climate change, raise the profile and share lessons with higher levels of government". This lobbying work will also be a key role of Helston Town Council and our Cornwall Councillors going forward.

Helston Town Council has also offered to be a host for piloting Cornwall Council projects that could possibly be rolled out more widely. The council will also promote our target of achieving carbon neutrality by 2030 in the Welcome signs that visitors see when they approach the town.

Another important activity that Helston Town Council is committed to is ensuring that all its policies and procedures align with their climate goals. For existing policies, this will be achieved on a rolling basis as individual policies come up for periodic review.

Helston Climate Action Group

One of Helston Town Council's first steps in addressing the climate emergency was the formation of Helston Climate Action Group. This followed calls from members of the Helston community for the Town Council to recognise the emergency and respond accordingly. Consequently, Helston Town Council agreed to join in forming the action group, bringing together councillors and members of the community committed to working together to face the challenge ahead. The group then worked together on a suitable motion for the council to declare a climate emergency, which passed unanimously in March 2019:



14. Motion by the Mayor – Councillor Martin

that Helston Town Council:

a) Declares a climate emergency;

b) Pledges to work towards making Helston carbon neutral by 2030;

c) Work with Cornwall Council to assist them with their declaration to make Cornwall carbon neutral by 2030;

d) Act as a voice for the community to lobby for action on climate change, raise the profile and share lessons with higher levels of government;

e) Continue to work with the community of Helston and its surrounding parishes to deliver this new goal through all relevant strategies and plans; and

f) As a member of the Helston Climate Action Group, assist with the preparation of an Action Plan within six months to address this emergency.

Since its formation, Helston Climate Action Group has been meeting regularly and working hard to engage the wider community. We now have members from many local groups and organisations in addition to Helston Town Council and Transition Helston & District. These include Lizard & Penrose National Trust, South Kerrier Alliance, Helston & Lizard Food Bank, Helston Community College, Extinction Rebellion Helston, Helston & Lizard Peninsula Friends of the Earth, Plastic Free Helston and Helston in Bloom.

In April 2019 we set up several working groups to focus on key areas: Green Spaces, Food & Consumption, Energy & Transport, Communication & Education and Business Engagement. More recently a Health & Wellbeing working group has also been formed. A representative of each of these groups sits on the HCAG steering group.

Community engagement

Throughout April-June 2019 members of Helston Climate Action Group attended market stalls at Helston Farmers Market and the Monument Market to talk with people about Helston Town Council's climate emergency declaration and what this means. On each occasion we sought people's views on what we could be doing here in Helston to work towards carbon neutrality.

In June 2019 we held a community envisioning day, supported by Volunteer Cornwall[28] to explore this further. Over the course of the day we met with 60-70 people, several of whom went on to join the climate action group. The ideas and suggestions made by people during these community engagement events formed the basis of this climate action plan.

Working with other councils

Since March 2019 efforts have been made to reach out to and engage other local councils. Members of HCAG have spoken at Community Network Panel meetings and at nearby town and parish council meetings. We have also been present at key meetings at County Hall where Cornwall Council's climate action plan was discussed and approved. HCAG working documents have been shared freely with other local councils and efforts made to explore how Helston can work with surrounding parishes & towns towards a common goal.

The need for co-operation

It will take a remarkable and almost unprecedented level of mutual co-operation and shared values for us all to meet the ambition of becoming carbon neutral by 2030, but this is the challenge before us. However, Helston Climate Action Group along with Helston Town Council, believes that it can be achieved. The more the Helston community joins in with these efforts, the greater our chances of success. Whatever the outcome, working together will help make Helston become a more inclusive, cohesive and resilient community, better able to face the challenging times ahead.

The work of partners and stakeholders

Becoming carbon neutral by 2030 will depend on vital contributions from partner organisations and stakeholders. Below are some we have already been engaging with, and the work they have underway.

Lizard and Penrose National Trust (NT) have been actively creating and restoring natural habitats, taking opportunities where farm tenancies change to make new space for nature as well as creating habitats like wetland and woodland which will help capture carbon. They have been having to respond to the impacts of climate change locally, in places like Mullion Cove where increasing storminess has damaged the harbour walls and places like Gunwalloe where the cliffs are eroding fast and planning for a future with a changing coastline.

The National Trust as an organisation plans to make 50% of their energy from their own clean, renewable sources, and reduce their total energy consumption by 15% by 2021. The Lizard and Penrose National Trust have installed solar power at places like Kynance Cove to generate their own power, and have installed air source heat pumps, solar thermal panels and improved insulation across many properties to reduce energy use. NT work to an externally-accredited green standard which means continually improving their management of energy, water and waste. Local staff recently travelled to London to lobby members of Parliament as part of the

Climate Coalition, a group of environmental, aid and civic organisations that are influencing Government and business to meet the climate challenge.

South Kerrier Alliance. Since the South Kerrier Alliance (SKA) was established in 2008, this community group has been focused on the long-term issues and challenges that will affect our environment, our local economy, our people and our communities. In 2012 the SKA completed and opened the Old Cattle Market community building. Built to the highest BREEAM standards (forerunner of Passivhaus) with solar panels in situ, the Old Cattle Market is an example of how to make buildings more environmentally friendly. SKA's decision to combine a community space with space for local businesses and adult social care has proved a viable economic model, and has led to the Old Cattle Market becoming a thriving community facility.

In 2008 SKA established Helston Farmers Market, in an effort to create a vibrant local food economy and strengthen relationships between residents, visitors, farmers and local food producers and reduce people's dependency on global providers and supermarkets. The market has grown to be the biggest farmers market in Cornwall, and has been used as a model in other places.

SKA now also manages Coronation Park, a very popular green space within Helston, and future plans include the completion of a cycle trail from Helston to Porthleven and looking at ways to connect Penrose to the town centre. They are also looking at the development of Penrose Amenity Area to include a formal entrance to Penrose National Trust. This could include electric vehicle charging points and a community orchard.

Transition Helston & District. Transition Helston & District (THD) is part of the Transition Network, a movement of communities coming together to reimagine and rebuild our world, building community resilience as we move towards a low carbon future. Formed in 2008, THD was revitalised in December 2018 following the publication of the IPCC Special Report.

In July 2019 THD established a Community Food Forest in the Weeth walled garden on the Penrose estate. The group meets regularly to grow healthy food together as a community and share ecological gardening skills. Work has started on a demonstration site for ecological gardening, food production and an edible plant nursery. The garden will include significant genetic diversity of edible plants that will be used by Incredible Edible Helston to create new edible gardens throughout Helston.

THD also runs an Inner Transition group, to support people in our community to come into an awareness of climate & ecological breakdown and move forward into positive action. Group sessions are based on Active Hope and the Work that Reconnects by Joanna Macy.

Helston Community College. As this climate action plan goes to press, Helston Community College has launched a Green Charter and declared a climate emergency. We look forward to working closely with them in the future.

projects – introduction

At an April 2019 meeting of the Helston Climate Action Group it was decided to create a small number of Working Groups to decide how to implement Helston's climate emergency goals and look at the many ideas we received from members of the community. Our working groups were tasked to look at ideas in specific topic areas:

- **How we engage and enable our community**
  (Communication & Education working group)
- **How we transform our green spaces**
  (Green Spaces working group)
- **How we support local food production**
  (Food & Consumption working group)
- **How we reduce consumption and waste**
  (Food & Consumption working group)
- **How we reduce energy demand and produce our own clean energy**
  (Energy & Transport working group)
- **How we change the way we move around**
  (Energy & Transport working group)
- **How we support our local businesses**
  (Business Engagement working group)
- **How we build a stronger, healthier, more resilient community**
  (Health & Wellbeing working group)

Each group was given a broad scope and encouraged to source ideas from community engagement, and by looking at best practice from elsewhere. These ideas would then be developed into projects that could be presented to the Climate Action Group for consideration.

The groups were encouraged to focus on looking for ideas to:

- reduce carbon emissions,
- support nature restoration,
- build resilience and encourage localism.

We considered ideas aimed at averting the worst outcomes of climate change (*mitigation*), and others intended to help us cope with the coming changes (*adaptation*). Many, we hope, will address both needs.

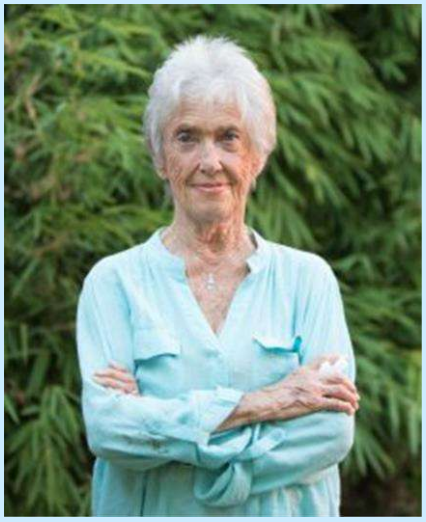
As described earlier, these ideas came from numerous sources, including direct engagement with the Helston community. Helston Climate Action Group members

attended market stalls and held a community envisioning day to gather the ideas that underpin this climate action plan.

Literally hundreds of ideas were generated, which then needed to be carefully considered, in order to determine which had the best chance of success if taken forward. Some of the considerations that went into deciding which ideas were most practical to take forward included the benefits that the project could provide, its timescale and likely cost.

When looking at the potential benefits of a project, we decided to prioritise projects that would have multiple co-benefits. In other words, a project that could reduce carbon emissions while improving resilience would be preferred over a project that only met one of those goals.

Health and wellbeing is a positive outcome of many of the projects being proposed so will be a central theme throughout the climate action plan.



"When our central organizing priority becomes the well-being of all life, then what happens through us is the recovery of our world."

Joanna Macy, 2012

To look at the co-benefits of potential projects, we adopted a slightly modified version of the **Ashden Climate Action Co-benefits Toolkit**[29], which demonstrates how responding to climate change can improve lives, not diminish them.

Cutting carbon emissions can impact positively on health and wellbeing through improved air quality and increased physical activity, and on the local economy through the creation of new jobs and training opportunities, and through supporting local producers. It can improve equity and social cohesion through focusing on the most vulnerable in our communities, by taking action to alleviate food and fuel poverty - thereby tackling inequality and ensuring a ***just transition*** to a low carbon future.

In HCAG we felt it was important to extend the range of co-benefits described in the Ashden toolkit (carbon, health, economy, equity and resilience) to include nature, wellbeing and the circular economy. At the end of this document, you will find a grid that explores the co-benefits for the projects we have described in this plan.

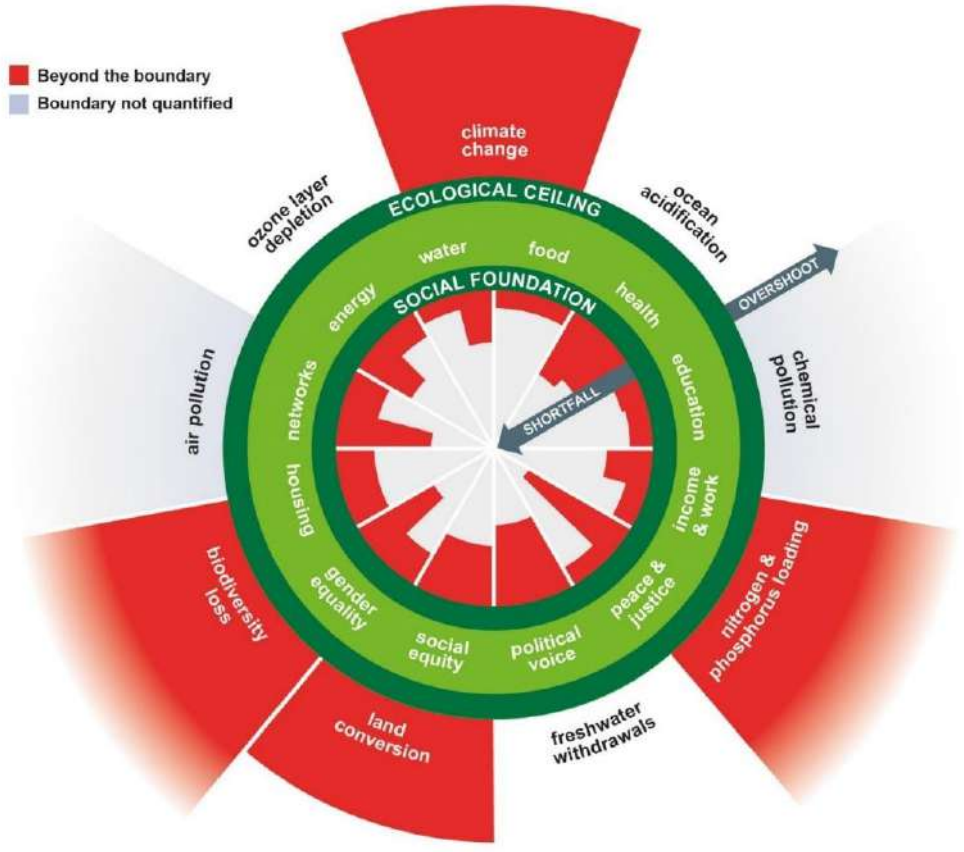
In both the grid, and in the project descriptions in the next section, we have used icons to depict the six co-benefits, which are as follows:

CO_2	Carbon Reduction	£	Economy
	Nature Restoration		Equity
	Health & Wellbeing		Resilience

Using the above approach, HCAG decided on thirty or so projects to take forward for further consideration. At a workshop facilitated by Permanently Brilliant[30] in early September, we discussed how the work we are planning in Helston can ensure that we do not overshoot Earth's life-supporting systems, while also ensuring that no one falls short on life's essentials (from food and housing to healthcare and political voice).

To do this, we used a **Doughnut Model** of the global economy, pioneered by Kate Raworth[31]. The doughnut combines two concentric radar charts to depict the two boundaries—social and ecological— that together encompass human wellbeing.

The inner boundary is a social foundation, below which lie shortfalls in wellbeing, such as hunger, ill health, illiteracy, and energy poverty. Its twelve dimensions and their illustrative indicators are derived from internationally agreed minimum standards for human wellbeing, as established in 2015 by the Sustainable Development Goals adopted by all member states of the United Nations[32].



The doughnut's outer boundary is an ecological ceiling, beyond which lies an overshoot of pressure on Earth's life-supporting systems, such as climate change, ocean acidification, and biodiversity loss. Its nine dimensions and their indicators were identified in Stockholm in 2009 by a group of earth system scientists[33].

Between these two sets of boundaries lies a safe and just space in which all of humanity has the chance to thrive. By quantifying and visualising the global scale of shortfalls and overshoot, the doughnut acts as a concise compass for assessment of the current state of human wellbeing.

Millions of people currently lead lives that fall far short of the social foundation's internationally agreed minimum standards, ranging from nutrition and health care to housing, income, and energy. At the same time, human activity has led to overshoot for at least four planetary boundaries: climate change, biodiversity loss, nitrogen and phosphorus loading, and land conversion.

Improving humanity's wellbeing this century depends on eliminating this social shortfall and ecological overshoot simultaneously.

After evaluating how projects would contribute to various social goals, while averting the overshoot of planetary boundaries, we then grouped projects into three broad categories, following a model used by one of our key partners, Lizard & Penrose National Trust. These categories are Thinking, Testing, and Doing. When listing projects later in the document, we have chosen icons to clearly indicate which category each project is in:

Thinking. Projects that need more thought and planning before getting started. May also require engagement with partner organisations and stakeholders.

Testing. Projects that are defined well enough to begin work, but may need to run as a pilot before a wider roll-out, or some other feasibility assessment.

Doing. Projects that are already underway, or that are ready to begin immediately.

Engaging and Enabling Our Community

Engaging and enabling our community so that we all empowered to take positive action will be essential for Helston to become carbon neutral by 2030. Helston Climate Action Group cannot do this alone. The journey to carbon neutrality is going to require our whole community working together. It will require significant changes to the way we do things, from the energy we use, to the food that we buy, and the way that we interact with nature. But out of a challenge comes opportunity. Working together we can help shape a happier, healthier, more resilient community, more connected to each other and the natural world around us

There are many roles to play in this collective effort. We need leaders and visionaries, engineers and farmers, artists and storytellers, educators and caregivers, builders and businesses. We need young and old, people who live and work here, people from the surrounding area that think of Helston as their town. We need our visitors working with us. Everyone is needed and everyone is welcome.

We have begun by reaching out to our community in traditional ways, through market stalls and producing leaflets. Many of the projects in this document came from ideas suggested by our community on these occasions, and at our envisioning day in June. However, we are aware that we need to do much more to engage and enable our community. The first step in this process is to provide information for our whole community.

Develop a communication & outreach strategy

We will make every effort to inform ourselves of the climate and ecological emergency, actively seeking out up-to-date factual information, current guidance and best practice. We will develop a communication and outreach strategy based around this, and create a reliable and regular means for sharing and exchanging information with our community.

We have created a Helston Climate Action Group Facebook page, and will look to use other forms of social media too. Information will be posted on the Helston Town Council website, on community noticeboards and in our community hub once this is established. We will have regular town meetings and establish links with local press. We hope to have a regular column in one of the local papers which we can use to keep our community informed of essential information and ways they can get involved.

Dedicated communication & outreach team

We already have a dedicated team to fulfil this communication role. We will extend this to include an outreach team that will build links with Helston schools, churches and other community-based organisations and institutions, including the Library Service.

Neighbourhood audit of local groups and organisations

We have begun undertaking a neighbourhood audit of different groups and organisations within and around Helston that we hope to engage and work in partnership with on projects going forward.

Toolkit of resources

We have already started work building a bank of resources to support our communications team. We will continue to build on this, and will work in partnership with local schools to develop an educational toolkit.

Workshop for schools on talking with children and young people about the climate & ecological emergency

In October 2019 we will hold a workshop to discuss ways to begin conversations with and within schools (and homes) about the climate & ecological emergency. This workshop will be facilitated by Climate Psychology Alliance[34] and will be open to teachers, parents, home educators and others in our community committed to working with our young people. The workshop will be in three parts:

1. Psychology and the Climate & Ecological Crisis and our own emotional responses
2. Talking with children & young people about the climate emergency
3. Building a toolkit of resources and a talk / workshop to offer schools

Following the workshop we will look at ways that that we can take this model into schools and support others to deliver in other locations.

Climate Vision 'Ten Pledges'

We will promote the adoption of Climate Vision's Ten Pledges[35], with key members of our community as Trusted Messengers leading the way, taking on the pledges publicly. These pledges have been endorsed by Cornwall Council following their climate emergency declaration. They offer an easy route in for people to get involved at an individual level, but collectively the impact could be huge: not only will we have reduced our carbon emissions as a community, but we will have changed the way we shop and move around, making informed choices about how we live our lives and the impact this has on the world around us.

We will look at ways that we can support the adoption of the Ten Pledges in local schools, and how to promote them through the Library Service and local health providers, such as GP surgeries and Helston Community Hospital.

With the support of Climate Vision and Cornwall Guiding we will create a guiding badge based around the Ten Pledges, to be piloted in Helston and Cornwall. The educational resources to accompany the badge will be added to our toolkit of resources for schools.

Make a difference, make a pledge, or two...

Climate VISION

If you would like to take some practical steps towards making a difference then do as many of the top ten pledges below as you think you can achieve.

Pledge ONE ☐
I pledge to ring my electricity supplier over the next 24 hours and see if I can switch to green energy (if not I will find one)!

Pledge TWO ☐
I pledge to buy local seasonal produce as much as possible – starting with at least 2 meals a week

Pledge THREE ☐
I pledge to educate myself about the science and impacts of climate change.

Pledge FOUR ☐
I pledge to contact my MP and my friends and make these pledges too

Pledge FIVE ☐
I pledge to walk, cycle, use public transport or register with **https://liftshare.com/** 08700 111199 to travel to work or regular journey at least once a week.

Pledge SIX ☐
I pledge to work out my own carbon footprint using one of the many easy to use carbon calculators eg, **http://footprint.wwf.org.uk**

Pledge SEVEN ☐
I pledge to do a 'home energy check' to find out how I can save energy in my home.
www.energysavingtrust.org.uk/resources/tools-calculators/home-energy-check
If you don't have internet ask the Energy Saving Trust on 0800 512 012

Pledge EIGHT ☐
I pledge to turn my thermostat down or use a thermometer to reach the lowest comfortable temperature, typically between 18-21 °C & think about putting on a jumper instead.

Pledge NINE ☐
I pledge to reduce my holiday air miles by 50%.

Pledge TEN ☐
I pledge to research 'Driving in a greener way' by google/research or by ringing up a driving instructor and booking a lesson to learn eco-drive ideas.

Transforming Our Green Spaces

The Green Spaces group has been looking at where and how spaces in Helston and the surrounding district show potential for nature recovery. In particular, we would like to increase wild plant and animal habitat. We have plenty of ideas, and we have already received many suggestions from the residents and visitors of Helston.

We have been impressed by everybody's enthusiasm for change for the better, and we anticipate a strong voluntary workforce to help us succeed. This is our town and our countryside, and it belongs to our children as much as it does to us. Our children should know and experience the wonders of the natural world. They should learn to love and care for their environment. We are well placed here in Cornwall for many of our children and young people to develop a deep knowledge of nature.

We all know how being close to nature makes us feel better. We are, after all, part of nature ourselves, living in our own ecosystem, dependent on many other plant and animal species. We cannot survive in isolation. Our mental and physical health benefit too. Helston's Green Spaces make us feel better. They improve our quality of life. Some provide a space for play and recreation, and some for rest.

Enhance urban public green spaces for the benefit of People and Nature.

We are taking a fresh look at our public green spaces with a view to enhancing them as spaces where people and Nature live and thrive together.

We will promote planting of pollinator friendly flowers, shrubs, trees and grasses where residents and visitors can find rest, pleasure and recreation close to wildlife. Creating wildlife havens in public spaces will encourage gardeners to join in this ambitious Nature Recovery program. The spaces allow children with their schools and families to learn first-hand about wildlife in their home town. Some of the spaces are ideal for fruit trees and other edible plants.

We will endeavour to become a pesticide free town, removing less desirable plants manually, and accepting most plants which we have come to call 'weeds' as an essential part of our Natural Landscape. We will continue to encourage the clearance of litter, and be mindful of the dangers of plastic waste, including microplastic waste, to all species as well as ourselves. We will do all we can to prevent pollution, particularly of water.

Forest for Helston and District as part of The Forest for Cornwall.

We will value the trees we have already and look to increasing the number in all appropriate spaces. This will complement the Forest for Cornwall project announced by Cornwall Council. We will aim to give every child in Helston the opportunity to plant their own tree.

More trees means more protection from rain and flood, and more shade from the hot sun, as well as more wildlife in foliage and branches. Urban trees will provide a link for wildlife with rural woodland. Small trees may be more suitable than large in many urban spaces, and fruit and nut trees are frequently ideal, offering the benefit of food for us townsfolk as well as for animals and birds.

Establish corridors for wildlife.

Verges and hedges will be seen as homes for wildlife, many of which connect other spaces such as gardens and parks. This allows travel of wildlife from one space to another, essential for many species if their populations are to survive and grow. Verges and hedges will be cut less often, and only when birds, insects, mammals, amphibians and reptiles are not needing to nest and shelter. Grassy areas will be managed more like wildflower meadows, so we can watch the recovery and prosperity of pollinating insects. Wildlife corridors should link the town's green spaces with rural wildlife habitats.

Practice and promote Wildlife Friendly Gardening

As well as practising wildlife friendly gardening on public land, we will encourage other gardeners to do likewise. Just as we aim to do ourselves, we ask others to leave space for wildlife, to dispose safely of any pesticides in their possession and to determine not to use them in the future, to accept some untidiness and to consider not strimming or mowing at least some areas.

We will have demonstration gardens which are educational, showing that gardens can be a place where people and wildlife can live together harmoniously, with plants and flowers which we find beautiful, and where we might also choose to grow food for ourselves as well as for wildlife.

Create protected space for Wild Nature.

We believe there should be spaces around the perimeter of the town where wildlife can be left largely undisturbed. These areas could be marked as Wild Nature areas, where people are asked to leave nature alone. Monitoring of wildlife periodically would help us know if this is valuable.

Supporting Local Food Production

An important part of our journey to carbon neutrality is around food – the food we eat, how & where it is produced, and how it gets to our table. Agriculture contributes 19% of Cornwall's total carbon emissions[36], but most of the food we eat comes from much further afield, contributing to transport-related carbon emissions too. There are additional problems around how food is grown and produced, and the impact that agriculture can have on soil, water, and wildlife. When we consider that 10 million tonnes of food is wasted nationally every year[37], while 28.9% of children in our parliamentary constituency live in poverty[38], it is clear that food offers the potential for transformational change.

In Helston we have planned projects around re-localising food production: making local food accessible and affordable to local people, community growing initiatives and making use of surplus food that would otherwise be wasted. In growing food together and supporting our local producers, we also grow community, build community cohesion and local resilience. Local food projects will also help facilitate a **just transition** to a zero carbon future, in which no one gets left behind.

Incredible Edible Helston

In Autumn 2019 we will launch Incredible Edible Helston. This project aims to make use of green spaces in and around the town for community growing - inspiring, informing, engaging and enabling our community to grow their own food, together.

Transition Helston & District have already started work on this project, through the establishment of an edible plant nursery in the Weeth walled garden (Penrose). Over the coming weeks & months we hope to engage as many local groups & organisations, schools, health providers & businesses as possible. Incredible Edible's motto is "If you eat, you're in!" This project is for everyone!

Local Food Hub

We will explore or 'test' the potential for setting up a local food hub, using open source software to:

- Enable local producers to list the produce they have for sale that week
- Enable local people to place orders to be delivered to a central location.

This online local marketplace could be used as a platform from which to inform our community about how their food is grown / produced, celebrate seasonal produce and local producers that have adopted organic, regenerative agricultural practices. We will explore how a local food hub could be linked to 'GoodGym' or equivalent, with local runners delivering food orders to isolated or older people in our community who would otherwise be unable to collect.

Community Supported Agriculture

Community supported agriculture (CSA) is a partnership between farmers and consumers in which the responsibilities, risks and rewards of farming are shared. There has been some interest in establishing a CSA project in the Helston area, but this will depend on land becoming available, and finding a lead grower that can help drive the project forward. While it is not a project we can get started on straight away, it is definitely one we are thinking about, and will pursue when circumstances allow.

Reducing Consumption and Waste

On an individual level, consumption accounts for a significant proportion of our carbon emissions. Along with growing public awareness of the need to reduce waste and plastic packaging – work that is being led by Plastic Free Helston - it is important that we also work within our communities to reduce the amount we consume in the first place. This means buying much fewer new goods, and making what we do buy last longer.

Helston Repair Café

In October 2019 we will open a repair café, similar to those in Falmouth & Penryn, Penzance and St Just. The Helston Repair café will run one Sunday a month at CAST. It will be a place where people can bring things they need help repairing, but in time we hope that we can extend this project to include skills-share workshops and a *Library of Things* (community pooled resources). As with community growing, this project is also about growing community: building & strengthening relationships within our community, and sharing of skills and local wisdom. It will help us make informed choices about what we buy, help us reduce the amount we consume and the amount of waste we generate.

Surplus Food Project

This project, pioneered by staff at RNAS Culdrose, takes food from local retailers that is past its sell-by-date and unharvested crops from local farmers, and uses the industrial kitchens at RNAS Culdrose to prepare and package meals to be distributed across Cornwall to community-based charities.

There is huge potential to roll this project out more widely within Cornwall and nationally.

We will play a supporting / influencing role in the Culdrose Surplus Food Project by lobbying for support at Cornwall Council level.

We will also explore the potential to develop a pilot community project in Helston. This could involve supplying a community kitchen / community meals, setting up a community fridge, linking with local organisations & charities to work with volunteers, explore training opportunities, and ensure meals are distributed to those in need.

Reducing Energy Demand and Producing Our Own Clean Energy

As highlighted in the Helston carbon audit, our direct energy demand (i.e. excluding consumption) in Helston is roughly equivalent to 52,000 tonnes of CO_2 equivalent per annum. This is split between domestic, commercial, and transport demands, and comes from the burning of fossil fuels in each sector.

Helston Climate Action Group will be promoting projects to help reach carbon neutrality in each of these areas. These will focus on facilitating and promoting the following:

- the reduction of our energy demand overall (household, transport, commercial, agriculture)
- switching our sources of energy from fossil fuels to renewables, including the production of clean energy
- transport-related projects aimed at reducing use of fossil fuels, and emission of particulates.
- reduction of our consumption of material goods (which create emissions elsewhere from the fossil fuels used in their production and transport)
- reduction of emissions of CO_2 and methane from agriculture and land use
- drawing down existing CO_2 from the atmosphere

According to the carbon audit, Helston is still heavily dependent on fossil fuels for domestic energy. Even if all the electricity used in domestic households was renewable, fossil fuels would still account for 74% of the energy used at home. Every individual household can do a number of things to reduce this demand:

- Switch appliances off at the wall, rather than leaving them on standby
- Switch off lights and change bulbs to LEDs
- Buy your energy from a renewable supplier
- Draw the curtains at night in winter
- Only heat the house where and when needed
- Put on a jumper instead of tuning the thermostat up
- Properly insulate your home (loft, walls, floors, windows, hot water tank)
- Replace gas/oil boilers with sustainable heating, such as heat pumps that use electricity and energy from the environment

Some of these need no more than a change in attitude. It only takes a minute or two to go around your home and turn off your appliances at the wall when not in use. But done regularly, this can save up to 12% of your electricity demand. Similarly, cost comparison websites can help households switch to renewable energy supplies in just a few minutes. The renewable energy suppliers are generally cost-competitive with the 'Big Six' suppliers.

Other changes can be more costly, but there are some grants such as the 'Renewable Heat Incentive' available. Such grants could well be increased as national government works towards achieving its own goals for reaching carbon neutrality.

We will also promote the *Net Zero Buildings Commitment*. While it is currently not possible for Helston Town Council to require new buildings to be sustainably built, objections based on insufficient consideration for climate impact will be noted on planning applications for new builds, as a means of highlighting to Cornwall Council and national government that suitable legislation is required.

Numerous projects have been considered for reducing energy demand, but some of these need further consideration before they can go ahead. Initially, the projects most likely to be worked on are those below, but they are subject to review and we are always listening for new ideas.

Producing our own clean energy

Helston has the capacity to provide much or all of its own energy needs, especially if demand is being reduced at the same time. The key element is to reduce demand by changing to much more energy efficient electrical systems such as

electric vehicles and heat pumps. If we achieve this, the carbon audit reports several ways of generating clean energy to meet our remaining needs, using the following key technologies:

- Solar panels, installed on roofs and on the ground
- Wind turbines
- Use of heat pumps for heating buildings
- Replacement of domestic boilers with wood boilers and stoves/furnaces (fuelled by locally produced coppice wood)

According to the audit, ground based solar photovoltaics using 5% of the available green space within Helston parish could provide almost all summer electricity needs. Some communities have recently been exploring the use of non-green space sites for ground-based solar, such as introducing solar 'roofs' at car parks, and we will look at these.

Additionally, seven 850kW wind turbines could produce about a quarter of the winter clean energy demand, with some from solar and potentially other sources also contributing through energy storage. The use of wind turbines will require close coordination with RNAS Culdrose, who have previously objected to turbines on sites near existing flight paths. We will explore the possibility that upgraded software systems can be used to reduce the impact on RNAS Culdrose's flight monitoring capability.

Helston Town Council has recently announced support for a team of experienced, independent specialists to produce a feasibility study to assess the current potential for renewable energy generation in the community. It is intended that this will be funded via a national government scheme. The aim of the study will be to confirm and strengthen the potential for renewable energy generation already identified in the Helston carbon audit. From that point, further funding will be sought to take suitable projects through to approved, ready to build status.

Producing our own electricity may increase demands on a national grid already struggling to keep up with demand. This may necessitate the setting up of localised energy grids in the years ahead, and we should be prepared to adjust to this in any community-led energy project.

Managing the 'Rebound'

According to a 2017 Guardian article, the average person in the UK owes £8,000 – on top of any mortgage debt[39]. Almost a quarter of all Britons said they were struggling to make ends meet, while 62% said they were often worried about their levels of personal debt. Around 10% of Cornwall residents live in fuel poverty, and

food bank use is at record highs. Consequently, a reduction in energy bills would provide some welcome relief. This together with better air quality, could promote health and wellbeing as people become less anxious about their personal situations.

However, for some, reducing energy demand may create unexpected savings, which can have unintended consequences. For example, if a family reduces their domestic energy demand by 50% and saves £335 per annum[40], what will they do with that money? If they simply spend it on goods (i.e. embedded carbon) or a last-minute holiday in the Canaries (aviation emissions!), then we have merely achieved the movement of one form of carbon consumption to another, perhaps worse form.

One way of mitigating this 'rebound' effect at a local level is by educating people that it can happen. We can also encourage creative community thinking around this issue, and promote the reinvestment of 'green' savings into community projects to further reduce our community's carbon output. These could be part of the function of our pop-up energy surgeries.

Nationally, government will need to find ways of dealing with the windfall created by increased efficiencies and reduced demand. Proposals to include carbon rationing, or increases in taxes on remaining fossil fuel use have been suggested over recent years.

Pop-up advice surgery

We will work to promote changes to help bring about a reduction in household energy demand. This will include organising a regular 'pop-up' energy saving advice surgery for the local community. This could take place in various places, but may eventually find a permanent location. Advice and information at such a surgery could include:

- Helping people calculate household carbon footprint and identify areas where they can make useful changes
- Advising on grants and subsidies for things like: boiler replacement, loft insulation, other insulation including external cladding, solar panels for electricity and heat
- Providing smart meters
- Connect vulnerable members of the community with volunteers who are willing to help, for example by clearing a loft prior to new insulation being installed

It is planned to work with Community Energy Plus to be able to provide the most up-to-date information available, with volunteers trained by CEP.

Reform Local Planning

Helston Town Council will promote the Net Zero Buildings Commitment. While the council is unable to prevent inefficient housing from being built directly (this may change in time), objections based on insufficient consideration for climate impact will be noted on planning applications for new builds. This will highlight to developers, Cornwall Council, and national government that suitable legislation is required.

Community Energy Project

We will facilitate the production of clean energy in community-based projects.

We will try to maximise the engagement of our community in these projects. For example, a solar PV array installed on a school roof is likely to generate much more public engagement than an installation on a commercial premise on an industrial estate.

However, we will consider facilitating and promoting any community-led projects that contribute to the production of clean energy.

Helston Town Council has recently announced support for a feasibility study that will be helpful in identifying viable projects for delivery in the community.

Changing the Way We Move Around

Transport represents over a third of our direct energy demand in Helston, consistent with other parts of the country. We will need to reduce that aspect of our energy demand in numerous ways. This will include:

- Promoting the use of public transport instead of private cars
- Switching private transport away from fossil fuels, to electric cars, electric bikes and pedal cycles
- Reducing the demand for transport at all by promoting shorter supply chains, encouraging people to work closer to home, telecommuting etc.

Projects aimed at achieving these goals are described below.

Transform Public Transport

We will begin working closely with First Kernow and other public transport suppliers to promote public transport. This will include making it more affordable and less reliant on fossil fuels.

Local community transport solutions based on electric vehicles will also be considered, such as a land train, or local micro-bus services. There are twenty-seater electric buses currently available that run on a replaceable battery pack, meaning that they can essentially run continuously.

Install Electric Vehicle Charging Points

We are actively exploring suitable locations and funding for the provision of charging points for electric vehicles to promote their use.

Local authorities can apply for funding to help with the costs of procurement and installation of on-street charging points for residential use, and we will be looking at the suitability of this scheme.

Promote Car Sharing

The use of car sharing is so transformative that it is one of Climate Vision's 'Ten Pledges'. Car sharing reduces the costs of travelling, cuts congestion and pollution, and reduces parking problems. It can be a great way to meet new people and make new friends. Well established organisations like Car Share Cornwall and The Pasty Connection have apps that help drivers and riders share journeys.

Ride sharing via the use of car clubs is also growing. These schemes provide the convenience of a car without the hassles and costs of ownership. Members pay for a car only when they want to use one, for as little as an hour at a time. Cornwall Council currently supports a scheme provided by Co-cars, with vehicles in Truro and Falmouth. Research suggests that on average one car club car results in 10-20 private cars being taken off the road.

We will be looking to encourage the use of car sharing by providing relevant information in as many ways as we can. One successful way of promoting car sharing is to provide free parking for users of shared cars; Cornwall Council has already provided marked parking bays for two cars at no cost. As car sharing adoption grows, we will look to incentivise it in similar ways.

Promote Telecommuting

Telecommuting, i.e. working from home or a hub near your home combines the obvious benefits of reducing greenhouse gas emissions and particulate pollution.

However, reducing demand on roads also reduces the cost of repairing, maintenance and expansion our infrastructure. It would result in fewer accidents. With fewer people commuting long distances, a community's resilience is increased. The impact of a road closures in a severe weather event on a community's ability to work will be reduced.

According to 2014 figures, the South West has the highest number of home workers already[41], but we would look to promote this further, initially by ensuring that the benefits of teleworking are widely known.

Promote Walking, Cycling, and Electric Vehicles

In line with Cornwall Council's commitment to "*promote active travel in Cornwall … by identifying town wide walking and cycling networks*", we will look at ways of making pedestrian and cycle travel safer and more desirable. Besides the obvious carbon reductions, increasing physical activity promotes health and wellbeing.

As Cornwall's infrastructure improves the viability of electric vehicles, we will look to inform people as to what funding is available to help with home charging points, and other incentives (such as scrappage schemes). We will arrange electric vehicle days to allow retailers to demonstrate the benefits of electric cycles, private cars, and commercial vehicles.

Pedestrianise Central Helston

Longer term, we will be looking at projects aimed at pedestrianising parts of central Helston. This is in line with Cornwall Council's goal of investing in walking and cycling routes throughout Cornwall's towns.

The aim will be to promote the heart of Helston as a place for the community to share, rather than as simply a thoroughfare for particle emitting vehicles. We will need to balance this with the commercial needs for the town, including the need for deliveries to be made to local businesses. This could perhaps be achieved with the use of timed bollards, as in some other parts of Cornwall, or other novel approaches.

While we are still at the 'thinking' stage of such an undertaking, we would be looking to engage all relevant stakeholders to ensure that all needs are considered within the goal of providing a safe and clean space for Helston to shop and socialise.

Supporting Our Local Businesses

We recognise that all organisations and businesses have their part to play in tackling the threats posed by climate change. We believe that local businesses need to take ownership of their responsibility in helping the town move towards a zero carbon future.

This process will clearly present both challenges and opportunities. Local businesses and organisations serving Helston's needs to the best of their abilities, could well become the foundation of the town's resilience.

We believe that for businesses and organisations to face the challenge of climate action, they will need to develop an inclusive attitude which embraces: Equality and Fairness, Co-operation, Flexibility and a re-localisation of their position in the community.

We will encourage businesses and organisations to examine their ethos and values in the light of the climate emergency and where possible, encourage them to support community related skills and become more localised in their supply chains.

We would further encourage businesses and organisations to minimise their carbon footprint and move towards zero waste and also to ensure that their suppliers are also minimising their carbon footprint and looking at alternatives if necessary. They

will be encouraged to declare a climate emergency for their company or organisation.

Pilot scheme for local businesses

We will run a pilot scheme for local businesses to assist them in carrying out a carbon audit and assess the impact on their business of possible improvements. One of our HCAG members has already taken the lead on this, and worked with her business to declare a climate emergency and commission a carbon audit[42]. This gives us a really good useful model to take forward to other local businesses, before rolling out more widely.

Helston kitemark or green badge scheme

We will develop a kitemark or best practice green badge scheme to reward local businesses & producers that are committing to working towards carbon neutrality and supporting nature restoration.

Climate-specific Visitor Charter for Helston

We will work in partnership with Helston Town Council and Plastic Free Helston to develop a climate-specific Visitor Charter for Helston. We envisage something along the lines of the CoaST charter pictured below. In doing so we hope to encourage our visitors to focus on how to have the best possible impact while having a fantastic holiday here in Helston. We will encourage local tourism-related businesses to join CoaST[43], a Cornwall-based social enterprise working to support those involved in responsible tourism.


coast
Cornwall Sustainable Tourism Project
5 ways to be the best sort of visitor
small steps...big impacts
Wherever we go and whatever we do, we have an impact. Make positive choices, and you can help us care for Cornwall and make that impact a positive one.
Have a fantastic holiday!
CoaST is working with everyone to keep the South West special.
www.coastproject.co.uk
www.futurefootprints.org.uk
www.visitcornwall.com
1 Reduce, Reuse, Recycle
In Cornwall we recycle! You can help us by refusing packaging and bags you don't need, and using the recycling banks you'll find in many places across the county. And if you can recycle where you're staying - please do. Even better!
www.recycleforcornwall.org.uk
2 Get out of the car!
Walking, cycling and riding are great ways to see the area without adding to traffic. Use public transport if you need to travel to your start point, but try exploring near to where you are staying - there are some fantastic places to see right on your doorstep ...just ask! www.sustrans.org.uk
3 Stay Local, Eat Local, Buy Local, See Local
Buy local - and you'll see what Cornwall can offer, and benefit the communities of Cornwall. Visit farmers' markets, farm shops, village stores, pubs and cafes. Our distinctive culture shines through the hundreds of community events that happen throughout the year - and the food and drink are simply fantastic...
www.cornwalltasteofthewest.co.uk
4 Chill out - Switch Off!
You can see the stars at night in Cornwall! Help us reduce light pollution, energy use and CO_2 emissions by switching off lights and all those standby buttons when you don't need them. Help us reduce water consumption by using just the water you need; and then sit back and enjoy that view... www.cep.org.uk
5 When in Rome...
To enjoy Cornwall at its best, we can help you get to know all the nooks and crannies in the Cornwall Area of Outstanding Natural Beauty (AONB). It's one protected area, split into 12 diverse and distinct parts - all chosen for their special qualities. They represent Cornwall's finest landscape and we want you to experience and love it as we do...
www.countrysideaccess.gov.uk
small steps...big impacts
CoaST is working with everyone to keep the South West special.
www.coastproject.co.uk
www.futurefootprints.org.uk
www.visitcornwall.com
Printed in the South West on 100% post consumer recycled paper using vegetable based inks. Created by Leap - design for change
www.leapmedia.co.uk

Building a Stronger, Healthier, More Resilient Community

Our aim is to promote the health benefits of tackling climate breakdown and create a carbon neutral Helston whose community is happy, healthy, resilient and connected to each other and nature.

Health and well-being and climate breakdown are intrinsically linked. As the environment around us deteriorates, so too will our mental and physical health. The World Health Organisation recently described climate change as "*the greatest threat to global health in the 21st century*"[44]. However, addressing climate breakdown also provides an opportunity for all of us to live healthier, simpler, more mindful lives. As people come to terms with climate change, there will be a need for support for members of our community. We intend to offer multiple ways to support, connect and strengthen cohesion within our community.

As the crisis intensifies, the most vulnerable people in our society will need more support. We will identify public health priorities for the population of Helston, the potential health impacts of climate change on our community, as well as current health provision in our community and areas we could improve as our projects and plan develop.

While specific health and wellbeing projects have been proposed, health and wellbeing is a positive outcome of many of the other projects being proposed so will be a central theme throughout the climate action plan.

Community Hub

In order to engage with the wider determinants of health a community hub is a priority in terms of reaching out to vulnerable people who will be most affected by climate change, letting them know what is happening but also how to access support. This could be in the form of practical support such as mending things, access to food, or advice on making changes at home, but also emotional support for people wanting space/time to talk. Eventually this could also become a space for community cooking/ eating and potentially growing as well.

If not a physical space in the short term, a temporary or pop up space will be trialled; somewhere people could drop in for advice/ support if needed, organise events such as shared lunches, and look into the playing out scheme[45] - where the roads in town could be closed for a time to enable residents to socialise and children to play. This has multiple health and social benefits.

GoodGym

We will explore the possibility of starting a GoodGym[46] in Helston. GoodGym is a community of runners that combine getting fit with doing good. Runners might stop off on runs to do physical tasks for community organisations, or to support isolated older people with social visits and one-off tasks they can't do on their own.

GoodGym is a great way to get fit, meet new people and do some good along the way. Penrose Parkrun have said they are happy to promote GoodGym to their runners as a separate initiative that they might like to support.

We will explore ways to link with local charities working with vulnerable people so they can get a visit or ask for help with tasks. We will look into the possibility of linking a GoodGym to the Food Hub and the Surplus Food Project to deliver food to those in need.

Asset Mapping

We will look at what the public health priorities for Helston are (in terms of existing population and provision) and what the health impacts of climate change will be. This will feed into the Helston Emergency Plan.

We will work to build links with Health Providers (statutory and non-statutory) and social prescribing link workers and communicate our climate action plan for Helston. We will be available to offer consultation alongside the business group on how healthcare providers can reduce their carbon footprint.

Rewilding schools / ecotherapy

We will offer to assist local schools to rewild part of their school grounds by planting meadows and trees. This project will be led by an outdoor children's counsellor who will work alongside children to identify sites for rewilding and tree planting. This will offer a safe space to learn and talk about climate change, the importance of carbon sequestration and creating habitats for wildlife, in a project which enables children to make a meaningful contribution to the world.

project co-benefits

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Engaging and Enabling Our Community						
Develop a communication & outreach strategy **Dedicated communication & outreach team**	Share & exchange information on how households, organisations, businesses etc. can reduce carbon footprint	Update community on how to support biodiversity and get involved in nature restoration initiatives	Promote Health & Wellbeing projects	Keep people updated on ways that local businesses can get involved, and projects that support the circular economy	A variety of tools will help us reach and engage with as wide a section of our community as possible	Establish & strengthen links with & within our community by sharing & exchanging information on relevant projects
Neighbourhood audit of local groups & organisations	Identify local groups & organisations that we can work with on projects that reduce carbon emissions	Build links with local groups & organisations to support each other on projects that support nature restoration	Identify groups & organisations that we can work with on projects that promote health & wellbeing (e.g. GoodGym)	Engage with groups & organisations to work with on projects that support circular economy, offer training opportunities etc.	Will help us reach and engage with as wide a section of our community as possible	Brings our community together to work towards a common purpose, building community resilience and cohesion
Toolkit of resources	Information will include ways we can help cut carbon emissions, as individuals and as a community	Provide information on nature stewardship and how we can help nature restoration as individuals and as a community	Toolkit will include information to promote health & wellbeing	Information on ways we can support our local economy & circular economy. Encourage & promote skill sharing.	Make toolkit widely available, to help us reach and engage with as wide a section of our community as possible	Toolkit will include information on projects which build individual and community resilience and community cohesion.
Workshop for schools on talking with children and young people about climate & ecological emergency	Will support teachers & parents to talk with children & young people about climate change and ways they can take positive action to reduce carbon footprint.	Will support teachers & parents to talk with children & young people about ecological breakdown and ways they can take positive action to support nature restoration.	Supports the emotional wellbeing of our children and young people and those working with them.	Valuing work done by parents and home educators alongside those paid to work with children & young people.	Enabling people to engage through supporting their emotional wellbeing and building support networks.	Supporting emotional wellbeing will help build resilience. Project will help bring school community together and weave a network of support for our young people, parents, and educators

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Engaging and Enabling Our Community						
Climate Vision 'Ten Pledges'	Potential to cut individual & collective carbon emissions through working through the pledges together	Indirectly through reduction in carbon emissions and encouraging people to make informed decisions.	Promoting active lifestyles - Pledge 5 promotes walking & cycling as a means of transport.	Pledge 2 involves supporting local producers. Pledges 7, 8 & 10 could save on households bills	Pledges promoted sensitively, recognising that some people may find some pledges difficult or irrelevant (not everyone can afford to fly). Support offered to enable to people to take pledges on.	Inform, engage & enable our local community to get involved in positive action. Builds individual and community resilience and community cohesion
Transforming Our Green Spaces						
Enhance urban public green spaces for the benefit of People and Nature	Plants, trees and grass capture carbon dioxide	Provides habitat, food and refuge for wildlife	Provides rest and leisure setting for residents and visitors. Supports healthy population of Helston	Enhances our green spaces (community asset)	Leisure and rest areas for all	Protects from severe heat, rain, flood and wind.
Forest for Helston and District as part of Forest for Cornwall.	Trees capture carbon, so acting as carbon sink	Provides habitat, food and refuge for wildlife	Protects from air pollution. Calming and restorative for mental wellbeing.	Prevents flooding, reduces maintenance of water channels and flood plains.	Benefits all residents and visitors.	Protects from severe heat, rain, flood and wind.
Establish corridors for wildlife	Plant life acts as carbon sink, particularly when established.	Provides habitat, food and refuge for wildlife. Avoiding chemicals good for wildlife.	Pleasing to most people to see lots of wild flowers. Avoiding chemicals good for human health	Less cutting and less maintenance generally.	Enjoyed by all.	Enables wildlife to grow in the town and surrounding district.

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Practice and Promote Wildlife Friendly Gardening	More trees and plants will increase carbon capture	Provides habitat, food and refuge for wildlife. Avoiding chemicals good for wildlife	Lifts the spirits to be close to Nature. Avoiding chemicals good for human health	Minimal costs. Some savings as gardening tends to be simpler, less machines, petrol and pesticides.	Enjoyed by everyone.	Enables wildlife to grow and thrive in town and surrounding district.
Create some space for Wild Nature	Wild spaces act as carbon sink	Provides protected habitat and refuge for wildlife	Supports the health of other Green Spaces which in turn support health & wellbeing of residents	Minimal cost.	Benefits everyone	Supports Nature Recovery which is vital for our own prosperity
Supporting Local Food Production						
Incredible Edible Helston	Reduced food miles & packaging cuts carbon emissions	Green spaces managed sensitively with focus on nature stewardship	Promotes healthy eating and active lifestyle choices. Health & wellbeing benefits of working in nature, building community & reducing social isolation	People save money on food bills. Valuing unpaid work done in our community. Possibility for horticultural training opportunities as project develops.	Fresh, organic produce available to all. Brings people together, can reduce isolation and loneliness. Project is open to all "If you eat, you're in!"	Increased resilience to impact of future food insecurity. Valuing local knowledge, skills & experience. Supports just transition to zero carbon future
Local Food Hub	Reduced food miles & packaging cuts carbon emissions	Celebrates local producers who focus on nature stewardship and regenerative agriculture	Promotes healthy eating. Fresh, organic produce available to more people in our community.	Actively supports local producers. Linking with GoodGym values unpaid work done in our community.	Fresh, organic produce more affordable & accessible. Linking with GoodGym can reduce isolation & loneliness	Increased resilience to impact of future food insecurity. Linking with GoodGym will help build community cohesion.

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Community Supported Agriculture	Reduced food miles & packaging cuts carbon emissions	Land managed sensitively with focus on nature stewardship	Promotes healthy eating and active lifestyle choices. Health & wellbeing benefits of working in nature, building community & reducing social isolation.	Actively supports local producers. Valuing unpaid work done in our community. Possibility for horticultural training opportunities as project develops.	Workshare would make fresh, organic produce more affordable & accessible.	Increased resilience to impact of future food insecurity. Valuing local knowledge, skills & experience. Will help build community cohesion.
Reducing Consumption and Waste						
Helston Repair Cafe	Reduced consumption & waste cuts carbon emissions		Builds community cohesion with health & wellbeing benefits. Reduce isolation and loneliness.	Valuing unpaid work & local knowledge as assets to our community. Contributes to circular economy. Support to local repair businesses or those selling parts.	Addresses inequality and recognises & values the skills held by those in our community.	Meeting more of our needs within our community. Brings people together, building community cohesion.
Surplus Food Project	Reduced carbon emissions from waste and reduced food miles.		Addresses food poverty, community meals build community cohesion with health & wellbeing benefits	Valuing unpaid work done in our community. Contributes to circular economy	Addresses food poverty & inequality	Supports just transition to zero carbon future. Builds community resilience and cohesion
Reducing Energy Demand and Producing Our Own Clean Energy						
Pop-up advice surgery	Help people reduce carbon emissions at home in their workplace.		Warmer, drier properties promote physical health	May help save on household bills	Accessible to all. Will help identify those in need of support.	Builds community cohesion.

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Reform local planning	Promote low carbon housing and commercial development		Warmer, drier properties promote physical health	Low carbon housing has fewer running costs. Will provide skilled job opportunities.		
Community Energy Project	Will help reduce carbon emissions.			Will provide skilled job opportunities.		Builds community resilience.
Changing the Way We Move Around						
Transform Public Transport	Replace diesel buses with ultra-low emitting vehicles.	Benefits to wildlife from fewer cars on the road.	Fewer particulates will have positive impact on health, especially for those with asthma and allergies	Grow public transport sector	Will help make public transport more accessible to all.	More opportunities to meet other people builds community cohesion.
Install Electric Vehicle Charging Points	Promotes the use of electric vehicles		Fewer particulates will have positive impact on health, especially for those with asthma and allergies		Will help make EVs more accessible e.g. to households with no off-road parking.	
Promote Car Sharing	Reduce number of cars on the road	Benefits to wildlife from fewer cars on the road.	Builds community cohesion with health & wellbeing benefits. Reduce isolation and loneliness.	Reduced travel costs	Accessible to all.	Builds community cohesion. People learn to rely on each other.
Promote Telecommuting	Reduce number of cars on the road	Benefits to wildlife from fewer cars on the road.	Using community hub for telecommuting reduces isolation and loneliness and builds community cohesion.	Reduced travel costs. People working closer to home support local businesses during working day.	Will encourage flexible working, opening up employment opportunities.	People working closer to home means more opportunities for community interaction. Less disruption from road closures.

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Promote Walking, Cycling & Electric Vehicles	Reduce number of carbon emitting vehicles on the road	Benefits to wildlife from fewer cars on the road.	Promotes healthy lifestyle. People more physically active. Helps make walking & cycling safer.	Will save on travel costs	Making walking & cycling safer makes these transport choices more accessible to those with young children.	Walking & cycling brings more opportunities to meet other people. Builds community cohesion.
Pedestrianise Central Helston	Reduce number of cars on the road. Promotes alternatives to powered vehicles.	Free up space for plants and trees in central Helston	Promotes healthy lifestyle. People more physically active. Reduced road traffic accidents	Encouraging people into heart of Helston could revitalise retail sector		Walking brings more opportunities to meet other people. Builds community cohesion.
Supporting Our Local Businesses						
Pilot scheme for local businesses	Support to businesses to reduce carbon emissions.			Supports local economy		Builds enthusiasm and cohesion especially business (and wider) community.
Helston kitemark or green badge scheme	Encourage businesses to reduce carbon emissions.	Encourage businesses to support nature restoration efforts.		Supports local economy		Builds enthusiasm and cohesion especially business (and wider) community.
Climate-specific Visitor Charter for Helston	Will help reduce carbon emissions.	Will encourage visitors to support local nature restoration efforts	Promotes healthy lifestyle. People more physically active.	Supports local economy & circular economy. Attracts environmentally aware tourists		Builds enthusiasm and cohesion especially business (and wider) community.

Project	Carbon	Nature	Health & Wellbeing	Economy	Equity	Resilience
Building a Stronger, Healthier, More Resilient Community						
Community Hub	Will enable us to share & exchange information on reducing carbon emissions	Will enable us to share & exchange information on nature restoration & community growing.	Reduces loneliness, anxiety, promotes healthy eating, healthy transport	Contributes to circular economy	Brings the community together, supports vulnerable people	Promotes resilience, connects people, offers support
Good Gym	Reduces food miles Reduces need for transport	Potential for runners to support local nature restoration initiatives.	Reduces loneliness, reduces obesity, increases nutrition	Contributes to local economy	Supports vulnerable people,	Promotes effective use of resources, builds community links
Asset Mapping	Building links with health care providers – support them to reduce carbon footprint		Better understanding of public health priorities for Helston & impacts of climate change on health. Building links with health care providers and social prescribing link workers.		Ensure vulnerable people are supported in emergencies	Emergency plan; increases resilience
Rewilding schools / ecotherapy	Trees capture carbon, so acting as carbon sink. Opportunity to teach children & parents about climate change and ways we can reduce carbon emissions.	Provides habitat, food and refuge for wildlife. Opportunity to teach children & parents about importance of rewilding.	Opportunity for children & parents to talk about climate change, access emotional support while taking positive action. Health & wellbeing benefits of being in nature.	Valuing unpaid work done in our community.	Project will be accessible to all in the school community. Will help identify those in need of support.	Emotional support & engaging positive action will help build resilience. Project will help bring school community together to work towards a common purpose, building community resilience and cohesion.

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glossary

Adaptation Action that helps cope with the effects of climate change - for example construction of barriers to protect against rising sea levels, or conversion to crops capable of surviving high temperatures and drought.

Afforestation Planting of new forests on lands that historically have not contained forests.

Anthropogenic climate change Man-made climate change - climate change caused by human activity as opposed to natural processes.

Baseline for cuts The year against which countries measure their target decrease of emissions. The Kyoto Protocol uses a baseline year of 1990. Some countries prefer to use later baselines. Climate change legislation in the United States, for example, uses a 2005 baseline.

Biodiversity The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.

Biofuel A fuel derived from renewable, biological sources, including crops such as maize and sugar cane, and some forms of waste.

Black carbon The soot that results from the incomplete combustion of fossil fuels, biofuels, and biomass (wood, animal dung, etc.). It is the most potent climate-warming aerosol. Unlike greenhouse gases, which trap infrared radiation that is already in the Earth's atmosphere, these particles absorb all wavelengths of sunlight and then re-emit this energy as infrared radiation.

Business as usual A scenario used for projections of future emissions assuming no action, or no new action, is taken to mitigate the problem. Some countries are pledging not to reduce their emissions but to make reductions compared to a business as usual scenario. Their emissions, therefore, would increase but less than they would have done.

Carbon capture and storage The collection and transport of concentrated carbon dioxide gas from large emission sources, such as power plants. The gases are then injected into deep underground reservoirs. Carbon capture is sometimes referred to as geological sequestration.

Carbon dioxide (CO_2) Carbon dioxide is a gas in the Earth's atmosphere. It occurs naturally and is also a by-product of human activities such as burning fossil fuels. It is the principal greenhouse gas produced by human activity.

Carbon dioxide equivalent (CO_2e) Six greenhouse gases are limited by the Kyoto Protocol and each has a different global warming potential. The overall warming effect of this cocktail of gases is often expressed in terms of carbon dioxide equivalent - the amount of CO_2 that would cause the same amount of warming.

Carbon footprint The amount of carbon emitted by an individual or organisation in a given period of time, or the amount of carbon emitted during the manufacture of a product.

Carbon neutral A process where there is no net release of CO_2. For example, growing biomass takes CO_2 out of the atmosphere, while burning it releases the gas again. The process would be carbon neutral if the amount taken out and the amount released were identical. A company or country can also achieve carbon neutrality by means of carbon offsetting.

Carbon offsetting A way of compensating for emissions of CO_2 by participating in, or funding, efforts to take CO_2 out of the atmosphere. Offsetting often involves paying another party, somewhere else, to save emissions equivalent to those produced by your activity.

Carbon sink Any process, activity or mechanism that removes carbon from the atmosphere. The

biggest carbon sinks are the world's oceans and forests, which absorb large amounts of carbon dioxide from the Earth's atmosphere.

Climate change A pattern of change affecting global or regional climate, as measured by yardsticks such as average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused by both natural processes and human activity. Global warming is one aspect of climate change.

CO_2 *See carbon dioxide*.

Deforestation The permanent removal of standing forests that can lead to significant levels of carbon dioxide emissions.

Feedback loop In a feedback loop, rising temperatures on the Earth change the environment in ways that affect the rate of warming. Feedback loops can be positive (adding to the rate of warming), or negative (reducing it). The melting of Arctic ice provides an example of a positive feedback process. As the ice on the surface of the Arctic Ocean melts away, there is a smaller area of white ice to reflect the Sun's heat back into space and more open, dark water to absorb it. The less ice there is, the more the water heats up, and the faster the remaining ice melts.

Fossil fuels Natural resources, such as coal, oil and natural gas, containing hydrocarbons. These fuels are formed in the Earth over millions of years and produce carbon dioxide when burnt.

Global average temperature The mean surface temperature of the Earth measured from three main sources: satellites, monthly readings from a network of over 3,000 surface temperature observation stations and sea surface temperature measurements taken mainly from the fleet of merchant ships, naval ships and data buoys.

Global warming The steady rise in global average temperature in recent decades, which experts believe is largely caused by man-made greenhouse gas emissions.

Greenhouse gases (GHGs) Natural and industrial gases that trap heat from the Earth and warm the surface. The Kyoto Protocol restricts emissions of six greenhouse gases: natural (carbon dioxide, nitrous oxide, and methane) and industrial (perfluorocarbons, hydrofluorocarbons, and sulphur hexafluoride).

Greenhouse effect The insulating effect of certain gases in the atmosphere, which allow solar radiation to warm the earth and then prevent some of the heat from escaping. See also Natural greenhouse effect.

IPCC The Intergovernmental Panel on Climate Change is a scientific body established by the United Nations Environment Programme and the World Meteorological Organization. It reviews and assesses the most recent scientific, technical, and socio-economic work relevant to climate change, but does not carry out its own research.

Kyoto Protocol A protocol attached to the UN Framework Convention on Climate Change, which sets legally binding commitments on greenhouse gas emissions. It was agreed by governments at a 1997 UN conference in Kyoto, Japan, but did not legally come into force until 2005. A different set of countries agreed a second commitment period in 2013 that will run until 2020.

Methane Methane is the second most important man-made greenhouse gas. Sources include both the natural world (wetlands, termites, wildfires) and human activity (agriculture, waste dumps, leaks from coal mining).

Mitigation Action that will reduce man-made climate change. This includes action to reduce greenhouse gas emissions or absorb greenhouse gases in the atmosphere.

Ocean acidification The ocean absorbs approximately one-fourth of man-made CO_2 from the atmosphere, which helps to reduce adverse climate change effects. However, when the CO_2 dissolves in seawater, carbonic acid is formed. Carbon emissions in the industrial era have already lowered the pH of seawater by 0.1. Ocean acidification can decrease the ability of marine organisms to build their shells and skeletal

structures and kill off coral reefs, with serious effects for people who rely on them as fishing grounds.

Passivhaus Passivhaus buildings provide a high level of occupant comfort while using very little energy for heating and cooling. They are built with meticulous attention to detail and rigorous design and construction according to principles developed by the Passivhaus Institute in Germany, and can be certified through an exacting quality assurance process.

Per-capita emissions The total amount of greenhouse gas emitted by a country per unit of population.

Pre-industrial levels of carbon dioxide The levels of carbon dioxide in the atmosphere prior to the start of the Industrial Revolution. These levels are estimated to be about 280 parts per million (by volume). The current level is around 400ppm.

Renewable energy Renewable energy is energy created from sources that can be replenished in a short period of time. The five renewable sources used most often are: biomass (such as wood and biogas), the movement of water, geothermal (heat from within the earth), wind, and solar.

Resilience The ability of a social or natural system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity of self-organisation and the capacity to adapt to stress and change.

Sequestration In this context, the process of storing carbon dioxide. This can happen naturally, as growing trees and plants turn CO_2 into biomass (wood, leaves, and so on). It can also refer to the capture and storage of CO_2 produced by industry. See Carbon capture and storage.

Tipping point A tipping point is a threshold for change, which, when reached, results in a process that is difficult to reverse. Scientists say it is urgent that policy makers halve global carbon dioxide emissions over the next 50 years or risk triggering changes that could be irreversible.

Vulnerability The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change.

Weather The state of the atmosphere with regard to temperature, cloudiness, rainfall, wind and other meteorological conditions. It is not the same as climate which is the average weather over a much longer period.

acknowledgements

There are a large number of individuals and organisations who contributed to the climate action plan and Helston Climate Action Group is extremely grateful for their help and support. Many thanks to all the following for their contributions:

Representing Helston Town Council: Councillors Dave Potter, John Martin (Helston Mayor), Tim Grattan-Kane, Miles Kenchington, Mike Thomas, and Helston Town Clerk Chris Dawson.

Community members: John Marshall, Maggie Freegard, Jules and Katharine Lewis, Zoe Rawlence, Kate Hutchins, Richard Horner, Melissa and Evie Ralph, Kim and James Croftson, Sophie Miller, Fi Garrard, Matt Sharp, Kevin Boyle, Sid Hill, Alastair Cameron, Mike Hardy and David Turnbull.

Special thanks to Manda Brookman of Permanently Brilliant and Volunteer Cornwall for facilitating the community envisioning event and 'doughnut' workshop. Thanks also to artist Lucy Grant for helping visualise children's ideas during the envisioning day, and Charmian Larke (Community Works) for explaining Helston's carbon audit during the event, and for ongoing technical support.

For their contribution of ideas, and commitment to work together on projects in the future, we're grateful to Transition Helston & District, Lizard & Penrose National Trust, South Kerrier Alliance, Helston & Lizard Food Bank, Helston Community College, Helston & Lizard Peninsula Friends of the Earth, Extinction Rebellion Helston, Plastic Free Helston, Helston in Bloom, Climate Vision and Climate Psychology Alliance.

Thanks to Helston Town Council and South Kerrier Alliance, CAST and CAST Café for providing space for meetings and workshops.
