

# Sustainable Futures Strategy

Warwickshire County Council

September 2022

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# Foreword

*To be written by Warwickshire County Council*

# Executive Summary

This Sustainable Futures Strategy has been developed with three challenges facing the UK today in mind: *Climate Change*, *Loss of Biodiversity* and the *Cost of Living Crisis*. It aims to set out a framework, key action areas and principles for delivering the strategic priorities of being a County with a sustainable future, adapting to and mitigating climate change and achieving the nationwide target of net-zero carbon emissions by 2050. We have committed to net zero carbon for our Council emissions by 2030 and net zero carbon for Country emissions by 2050.

Since 2005, County wide emissions have reduced by 24%. During this period, emissions from the transport sector have remained static, while emissions from industry and domestic and commercial buildings have been steadily declining.

Council related activities currently account for 19,500 tCO<sub>2</sub>e per year. To meet our net zero commitment, our emissions will have to be reduced by at least a further 29% by 2026 and 46% by 2030. Reductions are anticipated to occur primarily from transport (-28.5% by 2030) and building use (-17.5% by 2030). To meet these emissions reduction targets, immediate and decisive action must be taken. The actions and strategies within this document have been created to establish a clear pathway towards these goals. To support this, this strategy focuses on six key themes:

- **Transport:** We aim to reduce carbon emissions from the transport sector by 1,300 tCO<sub>2</sub>e by 2030, though a transition to alternative fuels and the implementation of a more efficient staff travel plan. We plan to support further emission reduction through promoting integrated and place-based transport planning, supporting the uptake of active travel and zero-emissions vehicle ownership and transitioning to more sustainable fuel sources for commercial and freight transport.
- **Energy:** To maximise decarbonisation of the energy used by the Council, we are committed to identifying opportunities to increase the installation of renewable technologies on Council owned buildings and the volume of in-County renewable energy generation.
- **Built Environment:** Our goal is to reduce emissions from Council building's energy use by a minimum of 1,700 tCO<sub>2</sub>e by 2030. We will increase our knowledge of energy use within our decentralised assets, decarbonising our natural gas heat supply where viable, identifying opportunities to co-locate with partners, undertaking further property decarbonisation feasibility studies and supporting renewable energy schemes.
- **Resources, Waste and Circular Economy:** Reducing waste and resource usage while supporting a transition to a circular economy are vital steps in moving towards a

sustainable future for Warwickshire. Following on from the National Resources and Waste Strategy, WCC aims to improve and increase educational campaigns, encourage behaviour change around consumption, identify opportunities to use waste as a resource and work with manufacturers to promote the use of sustainable and reusable materials, extend product life and reduce packaging and single use plastics.

- **Sustainable Communities and Green Economy:** WCC is committed to supporting a green economy while providing environments conducive for happy and equitable communities. While efforts to support a low-carbon economy have begun, WCC plans to intensify these efforts by prioritising investments where green economy principles are integrated, engaging more fully with our community and interest groups.
- **Natural Capital and Biodiversity:** Solutions to the global biodiversity and ecological crisis must begin at local level. This begins by recognising that economies are embedded in the natural environment, not external to it, and that nature itself should be viewed as a critically important asset. WCC plans to support these principles by developing a natural capital investment strategy, encouraging policies that prioritise environmental net gain, develop a natural capital account to manage our natural assets and by implementing an offsetting strategy for our tree planting targets.

Critical to our success in delivering our ambitions across these themes are our 8 delivery principles and 7 strategic enablers ensuring effective change management, changed behaviours, accountable governance, appropriate engagement, and the right policies. Substantial financial investment will be required in the next decades for decarbonisation, with funding critical to enable actions. Aside from securing financial resources, the Council will need to consider opportunities for upskilling, redirecting resource and potentially increasing staffing levels in specific areas.

WCC recognises that it will not be possible to reduce emissions within the County to absolute zero, it is therefore important to invest in a robust carbon offsetting strategy. We plan to establish a tree nursery to supply specific varieties of flora that thrive in the Warwickshire region. This will assist in meeting our tree planting targets of 566,000 new trees in Warwickshire, with the potential to increase this number even further.

Several actions in support of this strategy should also result in wider benefits for the community beyond helping us achieve our net zero targets. For example, implementing reduction / efficiency measures in our own buildings and supporting the community to do the same will help to reduce energy costs. Throughout this strategy, we have identified how residents in Warwickshire can contribute to creating a sustainable and prosperous community. For example, through by choosing prioritising walking or cycling, improving home energy efficiency, reducing waste, supporting sustainable, local products and produce, and taking an active role in the protection and enhancement of our natural spaces.

# WHY

## Introduction and Context

Warwickshire County Council (WCC) recognises that climate change, biodiversity, the cost of living for households and increased costs for businesses are amongst the most important issues facing the UK today. The County's infrastructure assets and economy are under threat from the impacts of climate change, which if left unmitigated will cost the County far more in the long run than implementing mitigation and adaptation measures now. Our response to these issues on behalf of communities, businesses and Council services begins with the development of this Sustainable Futures Strategy.

The UN's Sustainable Development Goals (UN SDGs) provide a shared blueprint of peace and prosperity for both people and the planet, now and into the future. They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. Whilst this strategy has a strong focus on the reduction of carbon to mitigate climate change and meet net zero commitments, it also aims to achieve wider sustainability by aligning with the UN SDGs. This alignment is displayed within each delivery theme and helps us target our response. Supporting this strategy is an Action Plan which outlines actions that will need funding to help us meet our targets.



### Climate Change Crisis

There is a growing recognition that climate change is one of the most important issues facing the world. The resulting emissions from continued burning of fossil fuels has been causing a global warming effect which has altered weather patterns, melted polar ice and increased ocean acidification leading to changes in sea life, in addition to causing devastating extreme weather events which has led to flooding, heatwaves, drought and wildfires. These events pose a direct risk to Warwickshire's communities and economy.

In 2008 the UK Government created the [Climate Change Act](#), which was updated in 2019 to commit the UK to Net Zero Carbon by 2050 (reducing emissions to 100% lower than the 1990 baseline). It is further committed to reducing economy-wide greenhouse gas (GHG) emissions by at least 68% by 2030, compared to 1990 levels.

The [Intergovernmental Panel on Climate Change \(IPCC\)](#) warned in 2018 that urgent action was needed to cut greenhouse gas emissions and limit global warming to 1.5°C above the pre-industrial baseline, to avoid the most catastrophic impacts of climate change, including risks to food and water security for current and future generations.

In response to this required urgency and the known risks to our communities associated with climate change, in July 2019, Warwickshire County Council (WCC) [declared a climate emergency](#) and has since **committed** to becoming carbon net zero as an organisation by 2030, and to support Warwickshire County to become carbon net zero by 2050.

The [Council Plan \(2022-2027\)](#) sets out a vision to make Warwickshire the best it can be, sustainable now and for future generations. A key priority of the plan is **Sustainable futures and climate change**. It recognises that climate risks will disproportionately impact the poorest and most vulnerable, so the transition to and beyond net zero and associated nature recovery must be managed in a way that widens opportunities through the growth of high value, green-related business sectors and jobs.



### Biodiversity Crisis

More than two-fifths of UK species including animals, birds and butterflies have seen significant population declines in recent decades, with more intensive agriculture still driving declines in farmland nature, thousands of acres of habitats being lost to development, whilst climate change is also having an increasing effect. Pollution from sewage and agricultural run-off continues to cause problems for natural areas such as streams and coastal areas. This is a huge problem because declines in biodiversity are directly related to declining wellbeing and economic prosperity.

In response, in 2019, the UK Government, along with many governments across the globe, declared a biodiversity emergency. Globally, the UN Convention on Biological

*"People are rightly concerned, with the latest IPCC report showing that if we fail to limit global warming to 1.5°C above pre-industrial levels, the floods and fires we have seen around the world this year will get more frequent and more fierce, crops will be more likely to fail, and sea levels will rise driving mass migration as millions are forced from their homes. Above 1.5°C we risk reaching climatic tipping points like the melting of arctic permafrost – releasing millennia of stored greenhouse gases – meaning we could lose control of our climate for good".*

**Net Zero Strategy: Build Back Greener. October 2021. BEIS**

Diversity (CBD) released a draft global biodiversity [framework](#), to guide actions worldwide through 2030, to preserve and protect nature and its essential services to people.

In order to achieve the Framework, many other European countries will be following the [EU Biodiversity Strategy for 2030](#), with specific actions, commitments and tracking. Whereas the UK will be following the [Nature Positive 2030 reports](#) (summary and evidence reports).

Warwickshire needs a strategy and vision of how to implement and deliver these evidenced requirements of 'how' to live in harmony with nature. What are we aiming for locally? What are the focus areas we need to work on over the next few decades?

*"Nature is in decline globally and in the UK. Between 1932 and 1984, we lost 97% of our species-rich grassland, five species of butterfly have disappeared from England in the last 150 years, and indicators showing the state of birds dependent on farmland stand at less than half their value compared to 1970."*

**Environment Bill: Nature and conservation covenants (parts 6 and 7). September 2021. DEFRA**

## Cost of Living Crisis



At the time of developing this strategy the UK is under pressure from a cost-of-living crisis. With inflation rising and the cap on energy bills being increased drastically, along with the impacts of the Russian invasion of Ukraine on fuel and food prices, huge pressures and burdens are being placed on families and businesses. There is significant concern for people's health (both physical and mental) and the ability of smaller firms to stay afloat with the cost of energy soaring. This crisis has also contributed to widening inequalities across the UK, further emphasising the need for [Levelling Up](#) on a local level.

This is a long-term strategy to create a sustainable economy and communities so it does not seek to address this crisis in the short-term, however, many of the objectives and actions identified will help to alleviate this burden in the long term through measures such as improving energy efficiency to reduce the need for fuel, thus reducing fuel bills, along with addressing the take-make-dispose economic model which traps consumers in a constant state of needing to replace products.

We have used 6 thematic areas in this strategy to mitigate the effects of climate change, biodiversity loss and the cost-of-living crisis. They represent the areas with the most ability to make a difference: transport, energy, built environment, waste and circular economy, sustainable communities and green economy, and natural capital and biodiversity.

## Strategy Aims

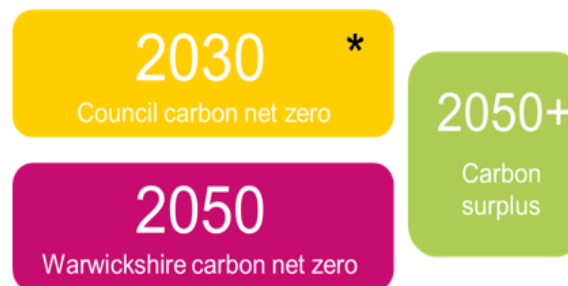
The aim of this strategy is to set out a framework, key action areas and principles for delivering on the Council's strategic priority of *being a County with a sustainable future, which means adapting to and mitigating climate change and meeting net zero commitments*.

We want to make Warwickshire the best it can be, sustainable now and for future generations

**This is a draft strategy. Public engagement is planned from November 2022 into early 2023 to capture views on this draft strategy.**

The scale and pace required to meet the 2030, 2050 and beyond 2050 targets is ambitious; business as usual activities within the Council and across the County are not going to cut it. This strategy recognises that we need to do more and faster, it also challenges us to think outside the box, be innovative and to consider what powers of

devolution we might need to enable us to deliver our objectives.



\* Includes all scope 1 and 2 emissions, plus emissions from waste, water, upstream energy and business travel

Whilst mitigating carbon emissions to keep the global temperature increase below 1.5°C, we must recognise that the effects of climate change are already being felt. As such, to be conservative, our Climate Adaptation Plan considers the impacts of higher emissions scenarios which

would result in greater temperature increases.

This strategy is based on current evidence and data. Areas such as technology and UK policy are constantly evolving; as new information emerges, we will adapt our actions appropriately.

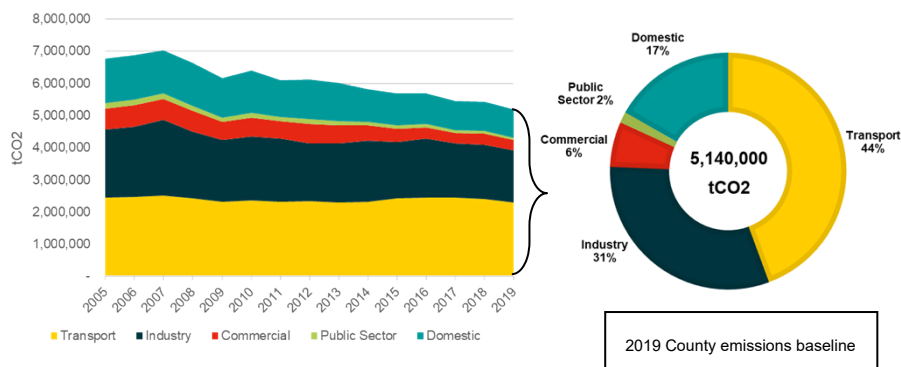


# Our Carbon Emissions

## Warwickshire County-Wide Emissions

### Where we are now

Since 2005, the County's emissions have reduced by **24%**, arriving at **5,140,000 tCO<sub>2</sub>** in **2019**, according to the [UK local authority and regional carbon dioxide emissions national statistics](#). The biggest sources of emissions are from the transport and industry sectors, followed by the domestic and commercial sectors, with the public sector making up the smallest proportion of emissions in the County. Transport emissions in the County have remained largely static whilst emissions from industry, and domestic and commercial buildings have steadily decreased.



### Reaching our net zero 2050 target

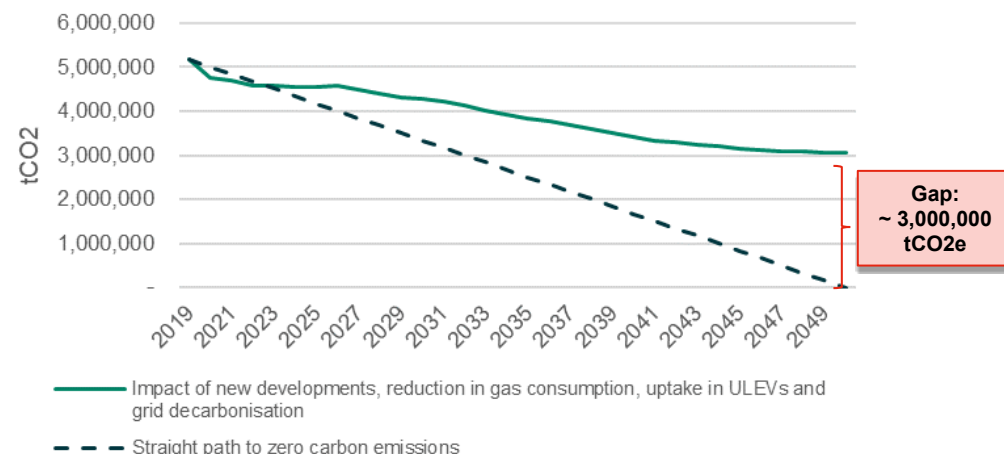
Our County-wide target to be net zero by 2050 is aligned with the UK's legal commitment to deliver net zero by 2050. We will need to accelerate our emissions reductions if we are to achieve this. We have currently mapped the impact on the County's emissions of:

- Grid electricity decarbonising as projected by the Department for Business, Energy and Industrial Strategy (BEIS) – this will reduce emissions.
- New housing and non-domestic developments currently planned to be built under the District and Borough Local Plans by 2050 – this will increase emissions.
- Heating technology projections for new housing and non-domestic developments are based on the National Grid's Future Energy Scenarios (FESs), where the natural gas demand for heating in homes decreases by 18% by 2030 and 99% by 2050, and for

heating in commercial and industrial buildings decreases by 11% by 2030 and 95% by 2050 (assuming a 2020 baseline) – this will reduce emissions.

- Likely decarbonisation of the transport sector as a result of national policies to ban the sale of new petrol and diesel cars, vans and HGVs – this will reduce emissions.

When this is compared to a straight-line pathway to zero emissions by 2050, it highlights there is still a need for the County to take greater, more ambitious action to reduce our emissions.



We will achieve net zero across the County through reducing emissions directly, however, it is anticipated that there will be a small percentage of residual emissions remaining in 2050 which we will look to balance through nature-based or other forms of GHG removals. We will explore and identify these as we progress towards 2050.

## Warwickshire County Council Emissions

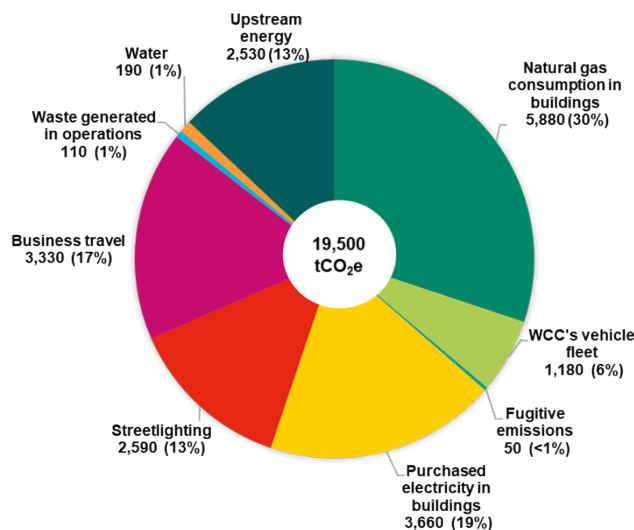
### Where we are now

Since 2014, we have reported our emissions related to natural gas and electricity use in our buildings, electricity use for streetlighting and fuel use for our own vehicle fleet. For these sources of emissions, we have seen a 63% reduction in emissions between 2014 and 2020. This has primarily been due to the decarbonisation of grid electricity and the replacement of sodium bulbs in streetlights with LEDs.

We have committed to achieve carbon net zero by 2030, for the following emissions sources:

- **Scope 1** – Direct emissions from assets we control: building gas/oil use, fuel use from vehicles we own
- **Scope 2** – Emissions from purchased electricity in our buildings and streetlighting
- **Scope 3** – Indirect emissions from the waste we generate, the water we consume, business travel and upstream energy

In 2019, these emissions sources equated to **19,500 tCO<sub>2</sub>e**. We have set this as our baseline from which to measure future progress towards our 2030 target. At present, some of these emissions are estimated using industry benchmarks, therefore we will continue to improve the quality of primary data we gather.

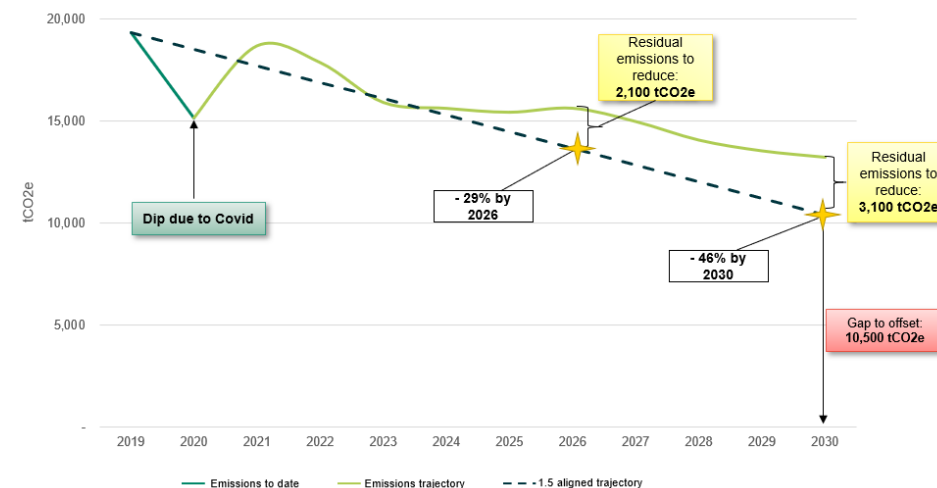


## Reaching our net zero 2030 target

We have mapped the likely trajectory of the emissions in scope of our 2030 target to better understand the gap to meet carbon net zero. This considers externalities including the projected impact of grid electricity decarbonisation and national policy banning the sale of new petrol and diesel cars, vans and HGVs.

Using the 1.5°C Sectoral Decarbonisation Approach (SDA) pathway from [SBTi Target Setting tool](#), we have set targets to reduce emissions in scope of our 2030 target by **29% by 2026** and **46% by 2030**. This SDA is a scientifically informed method for companies to set GHG reduction targets necessary to stay within a 1.5°C temperature rise above preindustrial levels. Note, these targets have not been verified by SBTi.

To meet these targets, we will need to reduce any residual emissions not reduced through externalities through the initiatives and actions outlined within this strategy and the accompanying action plan. Whilst we will work to reduce emissions as far as feasibly possible by 2030, based on a target of 46% reduction, **10,500 tCO<sub>2</sub>e** annually would be required to be offset.



## Iterative updates to our targets

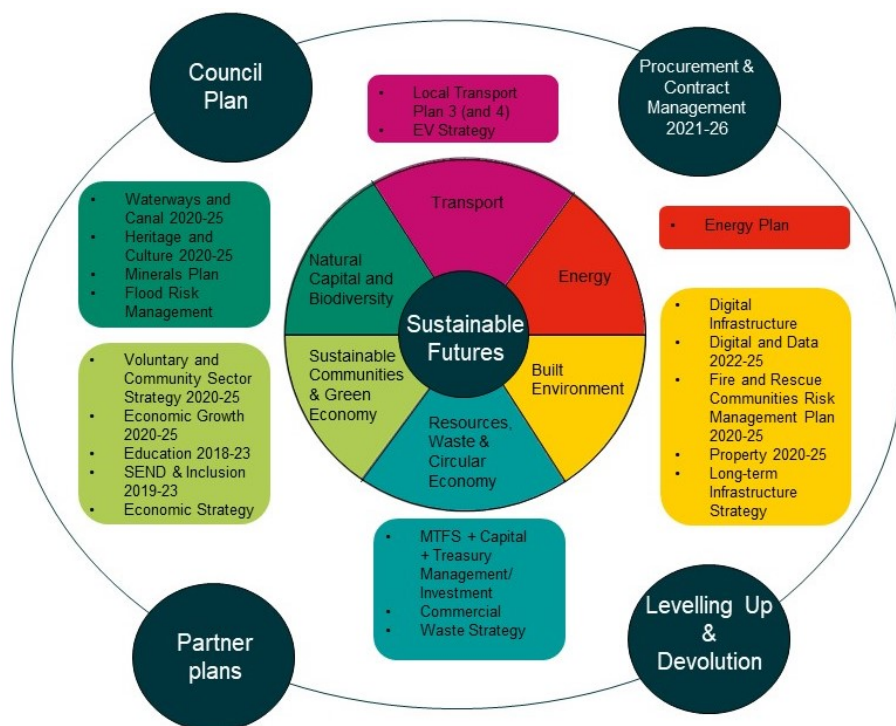
During the life of this strategy, we will need to continuously review the scope of our net zero target to include our full scope 3 footprint i.e., other sources of indirect emissions, for example from the goods and services that we purchase and our leased buildings, and to ensure we are evaluating improved data as it becomes available. We have already started initial work on our scope 3 to understand where our target areas for reductions will be and plan to continue building upon this. As we have less control over these emissions, we will need to work with our contractors, suppliers and other partners to deliver reductions in these areas.

# WHAT

## Strategy Alignment

### Warwickshire County Council policies, plans and strategies

This strategy combines our ambitions related to climate change, biodiversity and creating a sustainable County while aligning with other key Council plans and strategies to support delivery.



### Alignment with UK Legislation

This strategy is comprehensively aligned with UK policies and strategies. The detail can be found in **Appendix C**.

### Levelling up approach

In July 2022 WCC's Cabinet approved the [Countywide approach to Levelling Up in Warwickshire](#). The intention of Levelling Up is to support communities and places, helping those that need it most to improve life outcomes across all aspects of life, including health, education and employment. The approach translates the national agenda for the County, creating a local definition that complements the 12 national missions set out in the Levelling Up White Paper. Sustainable Futures is one of the four core elements, defining what Levelling Up in Warwickshire means at County, place and community level.

This Sustainable Futures Strategy, and plans being developed by the District and Borough Councils are critical to making this happen. We have built the Levelling Up approach into this strategy by considering how we will work with communities and partners, in prioritising actions within the County and our access to funding.

### Local Councils and Partners

Working with Warwickshire Borough, District, Town and Parish Councils and our health partners is essential to becoming a Net Zero County by 2050. This strategy aims to align their objectives and strategies with our own, so we are all moving in the same direction within Warwickshire. This strategy identifies the importance of directing sustainable actions where there is more appropriate control. Therefore, in some themes, actions are about *supporting* and *partnering* with other Councils and organisations to deliver their ambitions through effective collaboration and sharing best practice.

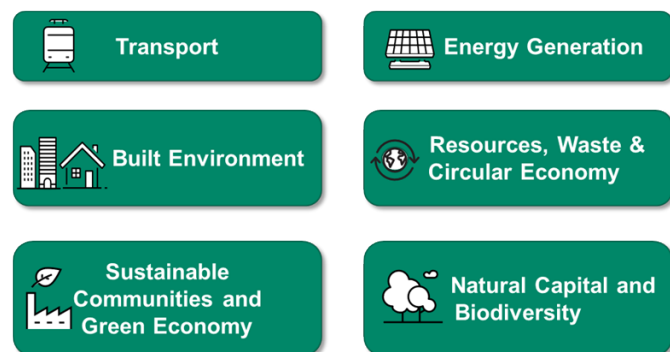
### Wider regional alignment

Our County is well placed to work with wider regional partners including Coventry City Council and Solihull Metropolitan Borough Council, West Midlands Combined Authority, local universities, NHS and the Coventry and Warwickshire Integrated Care System, Warwickshire Police and others. To enable effective partnership working and use our collective powers, this strategy reflects lessons learnt and opportunities from regional partners' strategies.

# Delivering Success

This strategy uses 6 delivery themes to focus the Council's efforts and assign objectives and actions for both 2030 and 2050 targets. Critical to our success in delivering our ambitions across these themes are our 8 delivery principles and 7 strategic enablers ensuring effective change management, changed behaviours, adequate resource management and funding, accountable governance, appropriate engagement, and the right policies. The need to engage communities and deliver actions through community powered action is critical and complex; therefore, this is addressed through both the delivery theme of 'Sustainable Communities and Green Economy', and the delivery principle 'Community Powered Approach'.

## Delivery Themes



## Delivery Principles

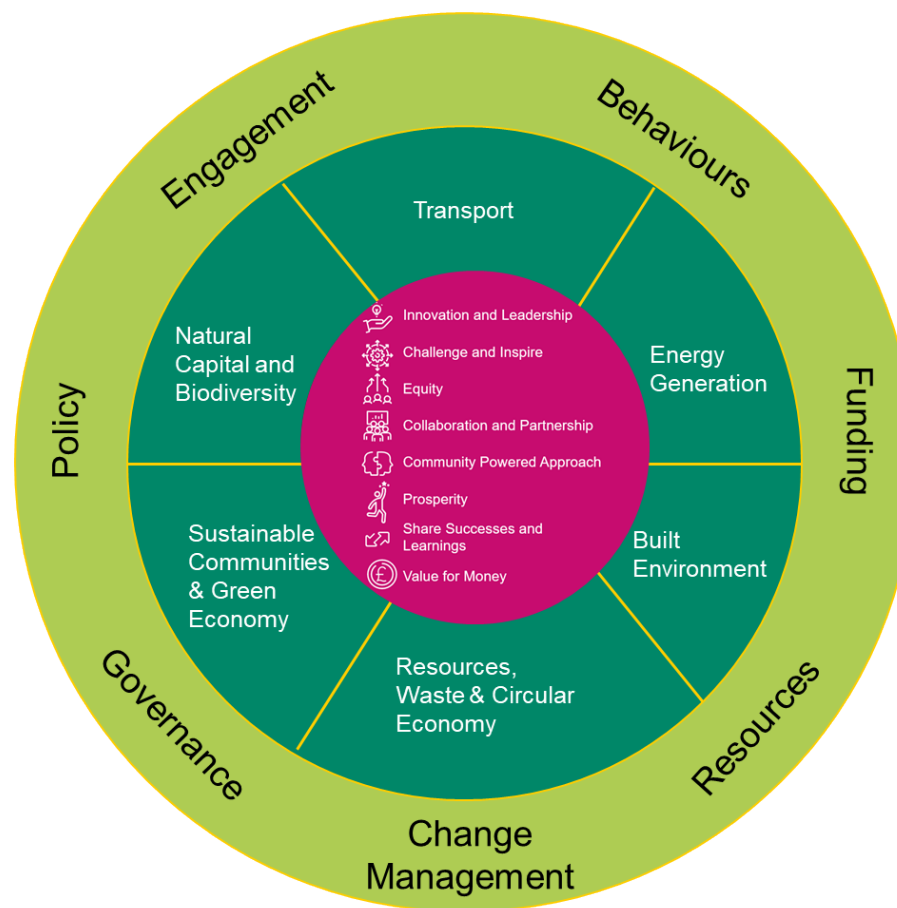


We will:

- Be innovative in our thinking and lead others on the journey
- Not accept the status quo; we will challenge and inspire
- Address climate change and biodiversity justly and equitably
- Be collaborative and work in partnerships
- Take a community powered approach
- Emphasise prosperity as a focus for sustainable growth
- Share our successes and learnings
- Deliver a strategy that is value for money

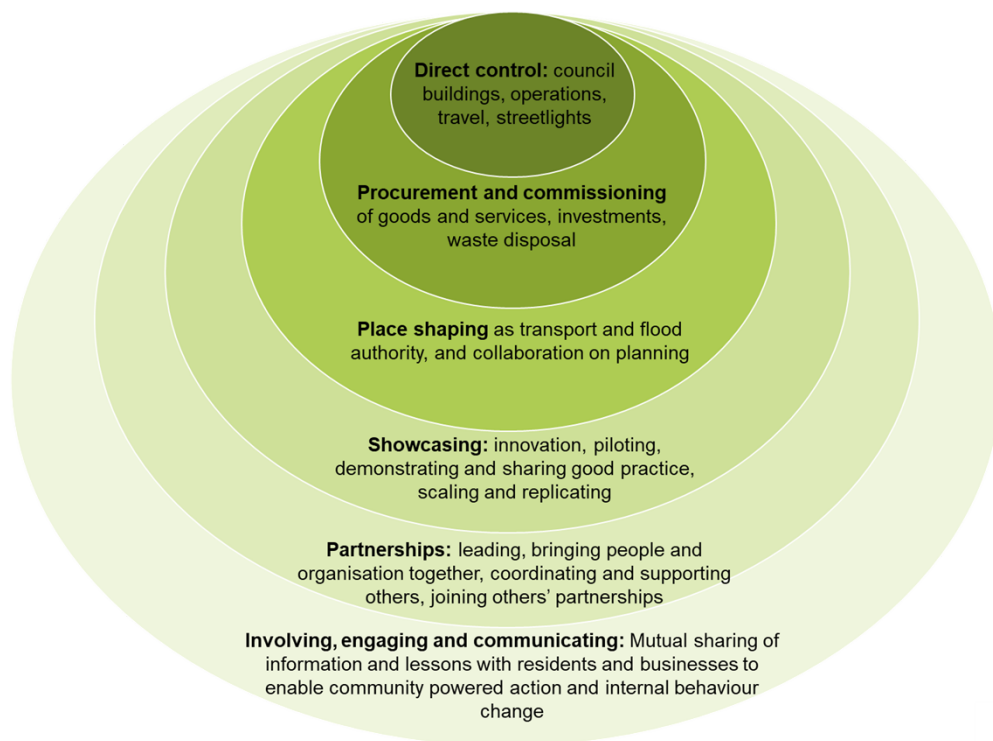
A green economy is broader than a low carbon economy; it aligns to the wider context of the UN SDGs. A green economy is an approach to sustainable economic growth with a central focus on reducing societal and environmental risks and ecological scarcities. It embeds climate adaptation into its construct. It transitions from the current 'growth-based' approach to investments, employment, and skills towards growth without degrading the environment, and the wellbeing and prosperity of citizens.

## Combined Delivery Approach



# Opportunities

This strategy identifies opportunities for change in accordance with the Climate Change Committee's six 'spheres of influence' that Councils have over carbon emissions, adaptation and wider sustainability objectives. Broadly within WCC these can be split into three main action types: *direct actions* that WCC as an organisation can make to reduce emissions from the buildings and assets we own, and the activities we conduct; *enabling and showcasing actions* to create an environment in which businesses and households can reduce emissions and showing them what can be done; *partnering and engaging* actions to mutually support other organisations and community ambitions.



## Barriers of constraint

There are clear constraints in what WCC can achieve on its own, as areas where the Council has direct control is limited. Where WCC comes up against these barriers, we will look at ways in which we can overcome them through a variety of means, such as engagement and partnership at the regional level.

## Devolution

Devolution is one of the 12 national missions set out in the Levelling Up White paper and a potential key mechanism for increasing the powers and funding available to Warwickshire to support Levelling Up and other local agendas. We have expressed interest in pursuing a Devolution Deal with Central Government, and the opportunities presented to Warwickshire by the West Midlands Combined Authority Trailblazer Devolution Deal as a non-constituent authority member, and we will further explore what this means for the delivery of our Sustainable Futures Strategy. What is clear is that delivery of this Sustainable Futures Strategy will be a key element of a future devolution deal for Warwickshire.

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**Direct Actions:** actions WCC can take that will directly reduce emissions, particularly significant in areas where we have direct control such as Council buildings

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**Enabling and Showcasing Actions:** actions that WCC can take that will allow others to directly reduce emissions that they have control over and actions that show others what can be done

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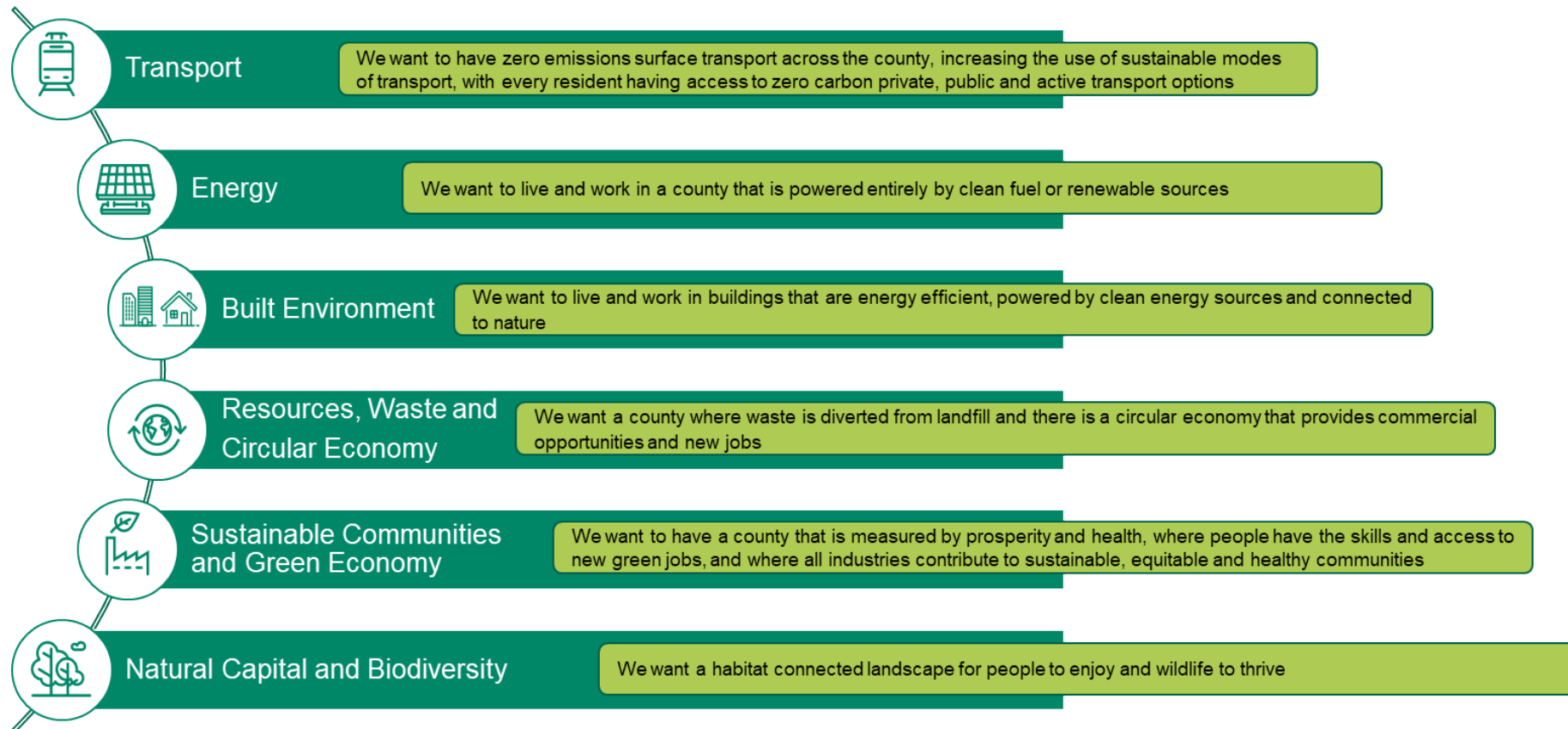
**Partnering and Engaging Actions:** actions WCC can take to promote collaboration and support regional delivery of ambitions through partnerships

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## Where do we want to be – the future

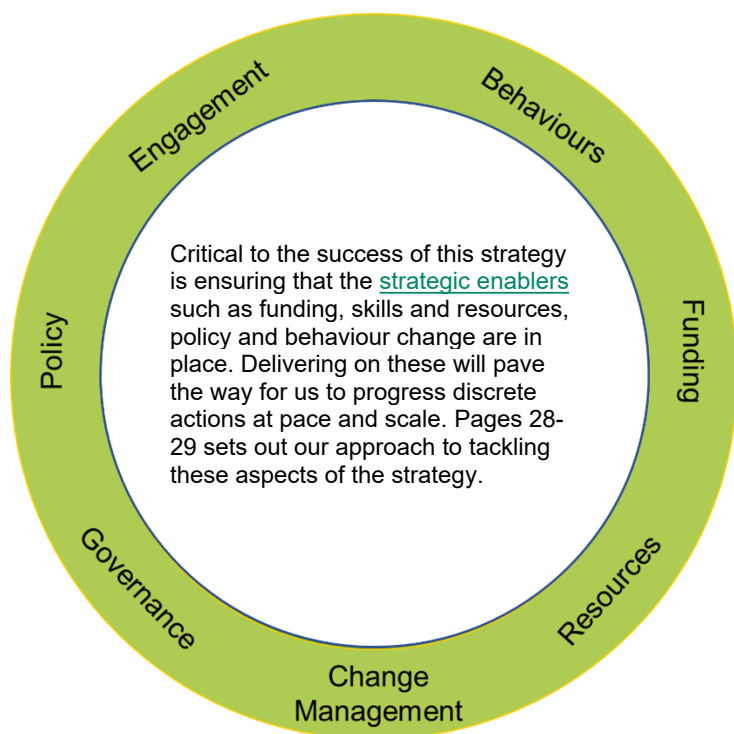
We are ambitious about what we want our future to look like. Within the next few decades, we want our County to be reimagined – low in carbon with vastly reduced energy bills, landscapes with plenty of wildlife that people can enjoy and farms which provide us local food, a thriving sustainable economy and communities that are happier, healthier and more engaged. The below gives a vision of the future.



# How

## Delivery Approach

There is clear alignment between this Sustainable Futures Strategy and the Council's overall strategic framework and our delivery approach. Sustainable Futures is a key priority in the [Council Plan \(2022-2027\)](#) and we are committed to make Warwickshire the best it can be, sustainable now and for future generations. Both set out the strategic aims and aspirations to achieving net zero and tackling the Global biodiversity crisis. This strategy is relevant to every part of the Council, and we are clear that we need to integrate sustainable thinking in all that we do. There is a natural link to the UN Sustainable Development Goals and we are committed to actions in support of these goals where they are relevant to our locality.



We have identified six delivery themes with key objectives that are fundamental for achieving our strategic aims and aspirations. The following section looks at each theme and summarises what we have done, where we are going, and the gaps that need to be bridged to meet our objectives. The themes are presented separately but there is inherent overlap and synergy between them all. Appendix A sets out the types of actions we need to deliver in support of our 2030 target of being a Net Zero Council. This is intended to be regularly updated based on the progress we make and as we identify new opportunities.

It is important to track and share our progress and the Council will do so by using key performance indicators selected from the list of indicators shown for each delivery theme.

# Transport

## Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce Council emissions from business travel	<ul style="list-style-type: none"> <li>% total electric/low carbon Council vehicles</li> <li>% of total journeys completed by green travel</li> </ul>
Improve capacity of electric vehicle charging across the County	<ul style="list-style-type: none"> <li>Number of chargers installed by type</li> <li>Area coverage of charging points</li> <li>% total electric/low carbon vehicles</li> </ul>
Reduce carbon emissions from Council fleet	<ul style="list-style-type: none"> <li>% total electric/low carbon vehicles</li> </ul>
Improve capacity of electric vehicle charging, across the County	<ul style="list-style-type: none"> <li>£ million Government funding secured</li> <li>Number of chargers installed by type</li> <li>Area coverage of charging points</li> <li>% total electric/low carbon vehicles</li> </ul>
Encourage residents in Warwickshire to make green travel choices, through engagement and communication schemes	<ul style="list-style-type: none"> <li>Number of campaign engagements</li> <li>No. people engaged with for their views and schemes</li> </ul>
Provide low emission public transport options to serve sustainable communities	<ul style="list-style-type: none"> <li>% of bus fleet Euro 6</li> <li>% of bus fleet low emissions</li> <li>% of all trips made by bus and rail</li> <li>Average time to a bus stop/ train station by active travel methods</li> </ul>
Reduce emissions relating to school transport	<ul style="list-style-type: none"> <li>Number of partnership projects completed</li> </ul>
Engage with key stakeholders, including District and Borough Councils, and highways contractors to reduce emissions in their areas of responsibility	<ul style="list-style-type: none"> <li>Number of partnership projects completed</li> <li>% emissions reductions in District/boroughs and third-party contractors through WCC support/partnership</li> </ul>
Support residents in Warwickshire to shift from cars to walking and cycling	<ul style="list-style-type: none"> <li>£ of Council funding invested in walking and cycling projects</li> <li>£ spent by Council in administering incentives</li> <li>Number of joint projects implemented</li> <li>Number of people completing cycling training</li> </ul>

## Context

Transport is the largest source of carbon emissions in the County, accounting for 44% of the County's emissions in 2019 (our baseline year), according to the [UK local authority and regional carbon dioxide emissions national statistics](#). Whilst total emissions from the transport sector in Warwickshire have remained relatively static over recent decades, the proportion of emissions generated by the transport sector has steadily increased, due to a steady decrease in emissions from other sectors (including industry and domestic and commercial buildings).


As the Transport Authority, we have a key role in enabling the County to reduce transport emissions. Not only will we need to lead the way by reducing the emissions from the Council's vehicle fleet, but we will need to prioritise options for more sustainable travel that can reduce private car use and inspire behaviour change across the County. In selecting options, we need to reflect the different challenges and barriers for rural areas versus towns.

## Where we are now

### Council

To date, we have reduced our own Council transport-related emissions by:

- Investing in 2 electric cars for Warwickshire Fire and Rescue Service and 10 new school buses with solar panel arrays and battery storage to power ancillary services
- Initiating a trial to pilot HVO (hydrotreated vegetable oil) in non-operational fire appliances

85.5% of respondents ranked climate change / carbon emissions as a top three priority when thinking about transport and the environment.   
(LTP 4 consultation)

### County

At a County level, we have supported the decarbonisation of the transport sector by:

- Under the SAfER Schools Award (Sustainable Active Focussing on Environment and Road safety) we work with over 80 schools resulting in air quality and carbon benefits.
- Funding 4 active travel projects and 4 projects to implement EV charging points through the first round of the Green Shoots Community Climate Change Fund.
- Commissioning a study to understand the scale of the decarbonisation challenge for the transport sector in Warwickshire and key priority areas.
- Committing funding towards on-street electric vehicle charging infrastructure.
- Exploring the potential use of hydrogen. Warwick District Council is establishing a Hydrogen Hub which will fuel Warwick and Stratford District Councils' refuse collection vehicles and may be used to fuel other heavier vehicles such as buses.



## What we have planned

### Council

We are also retaining our flexible agile working policy so that our commuting emissions remain low and will continue to encourage staff to travel to and from work via more sustainable modes of travel where possible e.g., public transport, walking or cycling.

### County

Progress with plans on sustainable transport to include engaging with the Government's strategy for Electric Vehicle (EV) Charging and seek funding through government schemes for EV developments.

Implement a pilot to assess the suitability of delivering on street, residential EV charge points using existing street lighting connections as part of a trial in 2022/23.

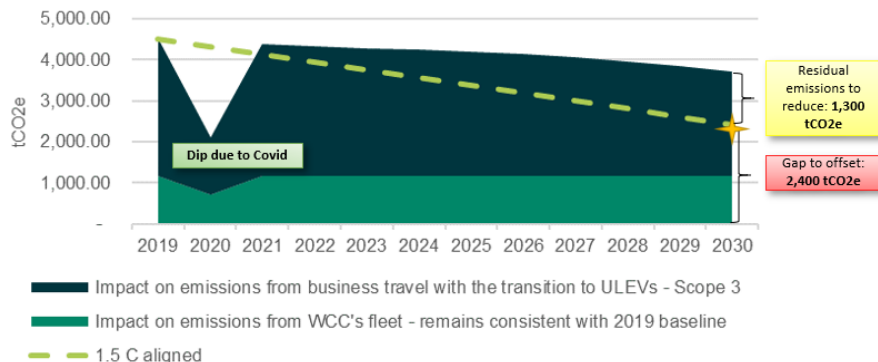
Progress with plans on sustainable transport to include investigating the development and implementation of rural charging hubs in Warwickshire.

We are currently drafting our Local Transport Plan 4 (LTP4) which prioritises a shift in travel behaviours. As part of this, we are developing strategies on active travel, public transport, motor vehicles and managing space to support.

## Where are the gaps

### Council

We have mapped how national policies banning the sale of new petrol and diesel car and van sales from 2030 and HGV sales from 2035/2040 will likely impact our business travel emissions. It has been assumed that emissions from the Council's fleet remain consistent with the 2019 baseline. By 2030, as a minimum we will need to reduce our emissions from



\*Refers to emissions reduction targets developed to limit global average temperature increase to 1.5°C above pre-industrial levels

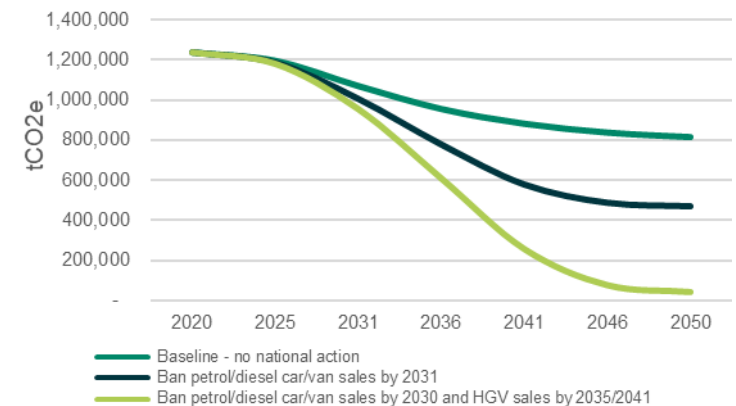
our fleet and business travel by approximately **1,300 tCO<sub>2</sub>e** in line with a science-based 1.5°C warming trajectory\*, but where possible we will reduce emissions further and faster.

To close this gap, we will need to focus on a combination of all the following:

- Upgrading our car and van fleet to electric vehicles and continuing to investigate alternative fuels for our other vehicles, including fire trucks.
- Implementing a staff travel plan to reduce business travel emissions.
- Assessing emissions related to the care sector and how we can support our staff and contractors to reduce those associated with travel for care work.

### County

The national Government policies of petrol and diesel vehicle bans have been mapped to understand the gap to net zero associated with County-wide transport emissions. No other scenarios, such as modal shift, have been mapped at this stage.



The graph indicates that a gap of **43,400 tCO<sub>2</sub>e** remains to help the County reach net-zero by 2050.

To close this gap, we will need to build on what is outlined within LTP4 and link strategies to focus on:

- Promoting integrated and place-based transport planning and development.
- Supporting actions to increase the uptake of active travel by our residents.
- Continuing to support the increase of low and zero emissions vehicle ownership by continuing to invest in affordable and accessible public charging infrastructure.
- Investigating the use of alternative and future fuels to reduce emissions from commercial and freight transport. This includes the use hydrogen as a transport fuel and working with industry to see what further opportunities are available in the northeast of the County, especially where there are logistics and distribution headquarters.

You can help by choosing to travel by more sustainable modes of transport where possible e.g., using cycling or walking (especially for short distances), public transport, reducing car use or electric vehicles.

# Energy Generation

## Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce carbon emissions from the Council's existing buildings	<ul style="list-style-type: none"> <li>Agree a revised Energy Policy and Strategy</li> <li>MWh heat delivered through heat network</li> <li>Number of buildings connected to heat network</li> <li>tCO<sub>2</sub>e saved by heat networks</li> <li>Total kilowatts peak (kWp) installed</li> </ul>
Identify and implement opportunities for District heat networks Countywide	<ul style="list-style-type: none"> <li>MWh heat delivered through heat network</li> <li>Number of buildings connected to heat network</li> <li>tCO<sub>2</sub>e saved by heat networks</li> </ul>
Identify opportunities for hydrogen production	<ul style="list-style-type: none"> <li>% energy replacement by hydrogen (as a comparison against total energy demand)</li> </ul>
Identify and implement community schemes	<ul style="list-style-type: none"> <li>Total kilowatts peak (kWp) installed</li> <li>tCO<sub>2</sub>e/year saved compared to grid electricity</li> <li>MWh of renewable heat installed</li> <li>Number of installations</li> <li>£ funding secured to allow delivery of first renewable energy scheme</li> </ul>
Engage with stakeholders (e.g. Energy Innovation Zones, Midlands Energy Hub, Energy Systems Catapult) for lessons learnt and joint partnership opportunities	<ul style="list-style-type: none"> <li>No. partnership projects identified</li> </ul>
Identify and implement opportunities for battery storage technologies	<ul style="list-style-type: none"> <li>MWh installed storage capacity</li> <li>tCO<sub>2</sub>e/year saved compared to grid electricity</li> </ul>
Mitigate any negative impacts of electrification of buildings, transport, and industry, coupled with smart energy systems and storage	<ul style="list-style-type: none"> <li>Negative impacts have a mitigation plan</li> </ul>



## Context

The UK Government has predicted that the electricity grid will decarbonise by 95% within the next 30 years. This means the electricity will be generated by sources other than fossil fuels for example, wind, solar, and potentially nuclear.



Right now, however, the UK is experiencing a fuel crisis. [In 2020 in Warwickshire 14.3% of households were experiencing fuel poverty](#) and this is predicted to rise over the coming months with the energy price cap increasing in October 2022 although this has been partly mitigated by the Energy Price Guarantee announced in September 2022, concern is that residents and businesses in Warwickshire will struggle, having to make extremely difficult choices.

As such, we not only need to move away from fossil fuels for the climate but also to provide ourselves with affordable energy and to improve energy security within our own borders; particularly at this time when energy prices are at an unprecedented high.

Core to the UK Government's Net Zero Strategy is delivering zero carbon energy. So, to support the national grid decarbonisation ambition and to be a County that is powered by clean fuel, we must play our part in generating our own electricity, clean heat and provide more District heat networks. To assist in this goal, we will contribute by supporting clean energy and heat generation projects developed by the Districts and Boroughs.

## Where we are now

### Electricity

The County uses approximately 2,333,000 MWh of electricity per year. To support renewable energy generation across Warwickshire we launched the Solar Together Warwickshire Programme which planned for 509 installations of high-quality solar photovoltaic (PV) panels and battery storage. As of June 2022, 21% of these have been completed. We will continue to seek funding to maintain this programme. Through the first round of our Green Shoots Community Climate Change Fund, we have funded six PV projects.

**84%** of respondents said they were aware that renewable or zero carbon electricity can be purchased from energy providers

(VoW panel)



Additional Solar PV has also been installed at Elliot Park Innovation Centre, which has saved 36 tCO<sub>2</sub>e between December 2021 and September 2022.

## Heat

Heat decarbonisation is another critical part of our route to net zero. It is early days in this area across the County, but heat pumps have been successfully installed at one of our fire stations and one of our care homes as alternatives to gas fired heating.

At the County level, the Warm and Well in Warwickshire programme, delivered by Act on Energy, has been in place as a tool to support households with private energy change queries and opportunities for change within their homes and businesses.

## What we have planned

### Council

We are currently planning to develop an Energy Policy and Energy Strategy for the Council and identify funding by the end of 2022 for the delivery of our first renewable targets anticipated from 2023 onwards.

### County

We will continue to increase energy flexibility within the County and support the remaining 80% of installations under Solar Together.

## Where are the gaps

### Council

Going forward, it will be key to identify opportunities and undertake feasibility studies for the installation of renewable technologies on Council owned buildings and land, to help decarbonise the electricity the Council consumes. Furthermore, identifying funding and financing options, including crowdfunding and community energy funds, will play a key role in this decarbonisation goal.

### County

To help meet national grid electricity decarbonisation targets and support the decarbonisation of heating, we will need to continue to increase the volume of in-County renewable energy generation, encourage electricity and gas use change e.g., alternative heating networks, and understand and exploit the opportunities presented by the hydrogen economy. We will address this gap through studies and investigations into the opportunities available to us, particularly in addressing the objectives we have set out above. Our action plan provides several examples of costed actions to support this.

You can help by purchasing energy from renewable sources and, where possible, take opportunities for renewable energy installations on owned buildings. [Act on Energy](#) can be used as a resource to provide advice on potential options.

# Built Environment

## Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce carbon emissions from the Council's existing buildings	<ul style="list-style-type: none"> <li>kWh/m<sup>2</sup>/year energy consumption of Council buildings</li> <li>Reduction in natural gas consumption in Council buildings</li> <li>tCO<sub>2</sub>e/year from Council buildings (already a KPI)</li> <li>£ million Government funding secured</li> <li>Number of completed net zero audits</li> <li>% of staff trained in energy efficiency, capability/ knowledge in fitting new technologies and retrofitting</li> <li>% of total energy consumption covered by green tariffs</li> <li>Reduce carbon emissions from the corporate property estate by 2.5% year on year per total £million gross revenue expenditure (approx. 20% reduction by 2030)</li> </ul>
Develop programme to reduce water wastage	<ul style="list-style-type: none"> <li>Behavioural and maintenance programme established to reduce wasted water</li> </ul>
Minimise carbon emissions in Warwickshire County Council's new buildings	<ul style="list-style-type: none"> <li>% of new developments/buildings achieving net zero standards</li> </ul>
Support local private businesses to meet the net zero target	<ul style="list-style-type: none"> <li>£ grants provided to businesses</li> <li>kWh/m<sup>2</sup>/year energy consumption from commercial sector</li> <li>Number of businesses participating</li> <li>Number of partnership projects completed</li> <li>% of new developments achieving net zero standards</li> </ul>
Support residential care to reduce carbon	<ul style="list-style-type: none"> <li>£ grants provided to businesses</li> <li>kWh/m<sup>2</sup>/year energy consumption from care sector</li> <li>Number of training events delivered</li> </ul>
Work in partnership with our Districts and Boroughs to minimise carbon emissions in existing housing and net zero in new housing	<ul style="list-style-type: none"> <li>% compliance amongst landlords reviewed</li> <li>Number of homes retrofitted</li> <li>Number of homes in each EPC band</li> <li>Number of partnership projects completed</li> <li>% of new homes achieving net zero standards</li> </ul>
Engage with partners to overcome current barriers	<ul style="list-style-type: none"> <li>No. of changes, decisions, ideas taken forward made through engagement</li> </ul>



## Context

Emissions associated with the built environment are a significant contributor to the County's emissions and make up ~72% of our own scope 1 and 2 carbon footprint. The main challenge for the built environment, both domestic and non-domestic, is tackling emissions from heating and cooling, particularly in the use of natural gas. Constructing new and retrofitting existing buildings to minimise energy consumption and shift to renewable sources is vital to support the built environment to become net zero by 2050 and for us to meet our Council target to be carbon net zero by 2030.

Addressing energy consumption and efficiency within domestic buildings will also help to tackle fuel poverty in addition to reducing emissions. Decreasing electricity demand will also help to provide energy security for the commercial and industrial sectors while reducing business costs.

## Where we are now

### Council

For our own buildings, we currently purchase 100% green electricity and have already undertaken some initial investigative studies to understand how we can reduce energy consumption by improving the energy efficiency of our buildings.



we

### County

Through the first round of our Green Shoots Community Climate Change Fund, we funded nine projects to improve energy efficiency. In 2021, we also launched the Warwickshire Property and Development Group (WPDG) to deliver new affordable and market priced homes and a range of commercial, mixed use and renewable energy opportunities across the County to support the County's decarbonisation journey. We have been replacing sodium bulbs with LEDs in our streetlights as they use far less energy.

## What we have planned

### Council

To support us in meeting our target to be operationally carbon net zero by 2030, we have planned to:

- Continue the replacement of sodium bulbs in streetlights with LEDs.

- Whilst we have made a start on understanding the requirements of our buildings and what needs to be done, we will continue to refine and implement findings from studies already undertaken.
- Include emissions/ energy performance as a potential consideration when deciding which surplus buildings to divest.

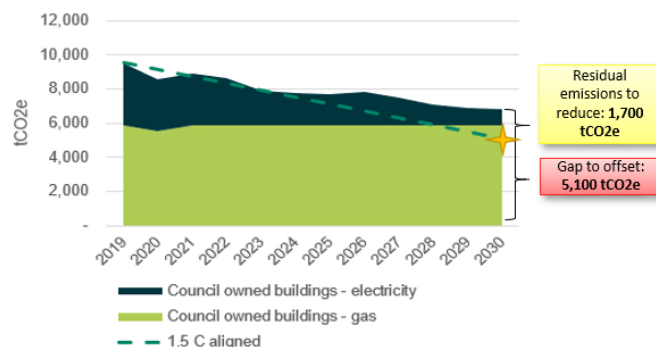
## County

At the County level, more effort will be placed in developing partnerships, especially with the Borough and District Councils around the role of the planning and development process. The reality is that the biggest carbon reductions are going to occur around decarbonising existing and new houses, and as the Local Housing Authorities, the Borough and District Councils will play the lead role on this. It is expected that houses and households most vulnerable to fuel poverty will be targeted initially.

## Where are the gaps

### Council

To remain in line with the 1.5°C science-based climate change trajectory, we must reduce our emissions from Council buildings' energy use by a minimum of 1,700 tCO<sub>2</sub>e by 2030. If possible, we aim to exceed this target. To close this gap, we will need to focus on:

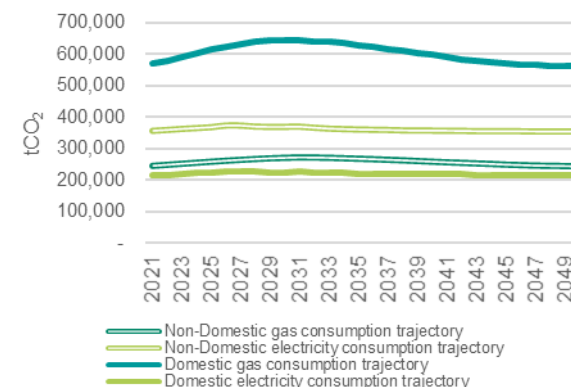


- Addressing the current gap in our knowledge of energy use within our decentralised assets. This will help expand our understanding of where the most impact can be and to be able to develop a priority list of which assets to be decarbonised and when.
- Post-2030 emissions associated with electricity use will continue to decrease as grid electricity decarbonises. Whilst we still must have a focus on operating buildings efficiently, our main challenge will be decarbonising our natural gas heat supply.
- Undertaking further property decarbonisation feasibility studies to identify the best options for retrofit and building decarbonisation across our portfolio.
- Completing a review of all our owned or leased buildings with service areas to identify future needs how this might impact energy use and our carbon footprint.
- Identifying increased opportunities to co-locate with partners.

- Using our estate to support renewable energy schemes.

## County

Scenario analysis has helped us understand our future energy use and associated carbon emissions based on national policies and our existing plans. Decarbonising heat (i.e., a replacement for natural gas) is a key priority.



To close the gap, we will need to focus on:

- Prioritising retrofit options e.g., fabric first approach, energy control and monitoring system, energy efficiency measures introduced followed by heat and electricity changes.
- Encouraging behaviour change across the County, including working with District and Borough Councils, landlords and homeowners to support property retrofits that improve energy efficiency, with a particular focus on homes with high energy/fuel costs and households vulnerable to fuel poverty.
- Investigating setting up a task force of experts from local and national government, academia and infrastructure to drive the decarbonisation of heat.
- Working with planning authorities to create sustainable developments (such as 15-minute neighbourhoods) and setting ambitious net zero carbon policies and standards\* for new builds that exceed Part L Building Regs.
- Seeking and supporting the retrofit of existing residential housing to enable greater energy efficiency, whilst delivering savings to those in greatest need.
- Working with, supporting and encouraging local businesses to retrofit and implement new technologies which reduce reliance on natural gas use.
- Continuing to liaise with District and Borough Councils to discuss how planning considerations can include options for climate change mitigation.

\*A cross industry initiative has been activated to develop a UK Net Zero Building Standard [Home | UK Net Zero Carbon Buildings Standard \(nzcbuildings.co.uk\)](https://www.uknetzerobuildingsstandard.co.uk/)

You can help by improving the energy efficiency of your house through using energy responsibly and prioritising retrofit options.

# Resources, Waste & Circular Economy

## Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce amount of waste per head and near zero to landfill by 2050	<ul style="list-style-type: none"> <li>Total waste (kg) per household</li> <li>Total waste (kg) per business</li> <li>kgs of residual household waste per household</li> <li>% household waste sent to landfill</li> <li>No. of households receiving Waste Education</li> <li>% of household waste re-used, recycled and composted</li> <li>% of household waste re-used, recycled and composted at the household waste recycling centres</li> </ul>
Reduce Council building waste	<ul style="list-style-type: none"> <li>Weight of waste (kg) reduced against previous year</li> <li>% waste to landfill</li> <li>% waste recycled</li> </ul>
Reduce emissions from collected waste	<ul style="list-style-type: none"> <li>Tonnes of carbon emitted by the Council as a waste disposal authority</li> <li>Tonnes of carbon emitted by the District and Borough Councils as waste collection authorities</li> </ul>
Drive ambition for circular economy approaches and reduction of waste	<ul style="list-style-type: none"> <li>No. engagements with other Councils</li> <li>100% Circular Economy Roadmap delivered</li> </ul>
Support communities and residents to adopt circular economy approaches	<ul style="list-style-type: none"> <li>No. events per year and No. attendees at events</li> <li>No. training events</li> <li>£ from grants delivered for circular economy initiatives (via community grants programmes)</li> </ul>
Support businesses to adopt circular economy principles	<ul style="list-style-type: none"> <li>£ from grants delivered for circular economy initiatives (via business grants programmes)</li> <li>No. events/hubs per year and No. attendees at events</li> </ul>
As a Council lead by example adopting circular economy approaches in procurement	<ul style="list-style-type: none"> <li>% contracts which include circular economy specifications</li> <li>% recycled content on new roads</li> <li>% of Council spend on circular products and services</li> </ul>
Drive circular construction and maintenance	<ul style="list-style-type: none"> <li>% projects/ developments delivered with reclaimed and/ or recycled materials</li> </ul>



## Context

We are the waste disposal and planning authority within Warwickshire. We adopt the waste hierarchy to prevent, reduce, reuse, recover and only then, dispose of our waste. But we want to go much further and adopt the principles of a circular economy.

Circular economy principles move away from a linear 'take, make, consume and throw-away society', towards one that minimises waste and pollution, keeps products and materials in use for as long as possible and supports the regeneration and protection of natural resources.

The linear economy supports the production of cheap products that wear down easily and lead to a higher rate of disposal. This may place consumers in a vicious cycle of continuously replacing cheap items. A circular economy looks to address this imbalance with a focus on better quality products that last longer and repair/return services for items that break or are worn out.

The circular economy considers the whole cycle of resources - design, manufacture, use, (strategies and infrastructure for extending use, e.g., repair cafes, resource exchange / second-hand shops etc.), followed by operations for retaining resource value (like recycling) at end of life.

Combining waste management with economic design and innovation and working in partnership with partners and businesses we can also add social value across the County.





## Where we are now

Much of the work the Council has done centres around waste reduction. Actions we have already taken include:



- Considering the environmental and carbon impact of our waste services e.g., haulage services when awarding contracts.
- Procured a food waste recycling service at a facility that is dedicated to treating food waste.
- Residents have 3 options for green garden waste (pay for green bin kerbside collection; Council subsidised hot and cold composting bins; take to recycling centre).
- Using energy recovery facilities to recover value from residual waste by producing electricity and heat, whilst aiming to send less than 10% of our total household waste to landfill and actively reduce this to near zero by 2050.
- Holding quarterly meetings with Districts and Borough Councils on waste – the Warwickshire Waste Partnership.
- We have reuse shops or collection points at all our recycling centres.

## What we have planned

In the next 2 years we will be implementing the following emissions and waste reduction activities:

- Warwick and Stratford District Councils have moved to general waste collection every 3 weeks, with weekly separate food waste collection. We expect recycling within those Districts to subsequently increase and for residual waste to be minimised. Once the new collection arrangements have been evaluated, other Districts and Boroughs may consider a similar approach.
- Responding to the National Resources and Waste Strategy consultation to help central government shape the future of waste. The three core pillars are likely to be extended to producer responsibility, deposit return scheme and consistency in collections.
- Preparing and implementing a new Local Waste Strategy following publication of the National Strategy.

## Where are the gaps

Our future resources and waste strategy, which will follow on from the National Resources and Waste Strategy, will provide details on how our circular economy objectives will be developed and implemented.

Gaps for moving to a circular economy:

- Improved education campaigns to encourage *behaviour change* on reducing our consumption.
- Working with our manufacturing businesses to change the *approach to design* so that within our County we are using sustainable materials in the first instance; reducing the use of materials; remanufacturing products during use; designing for disassembly at end of life; and recycling where there is no preferred option.
- Working across all sectors to *extend product life*. As a Council we need to support reuse, sharing, redistributing, donating, repairing, and *remanufacturing* within our County. We will need to work with shops and businesses, as well as community projects to provide the infrastructure and tooling to allow this to happen.
- Exploring *new business models*. We will look at our business grants, loans and funding mechanisms to encourage new and innovative products such as 'as a service' offerings, product renting, sharing, re-selling, or leasing.
- Treating *waste as a resource*. We will look for opportunities to use waste of any kind as a source for a new product.
- We will encourage the prioritisation of resources that are *renewable, non-hazardous, compostable* and have *minimal packaging*.

We need to do all this whilst recognising that the population is growing and under current trends waste is predicted to increase.



You can help by fundamentally reducing overall consumption and repairing your items rather than buying new. Consider where you purchase your items. Reduce single use plastic and buy local.

# Sustainable Communities & Green Economy

## Objectives

Objective	Potential Key Performance Indicator (KPI)
Lead by example, procuring sustainably and supporting new green markets	<ul style="list-style-type: none"> <li>% contracts which include green economy specifications</li> <li>% of Council spend on circular products and services</li> <li>No. of main contractors providing carbon emission data e.g., highways, property and social services</li> </ul>
Support businesses and communities to adopt a green economy	<ul style="list-style-type: none"> <li>No. of public resources shared</li> <li>Increase take-up of the Coventry and Warwickshire Green Business programme from 56% to 65% by 2023</li> <li>£ from grants delivered for green economy initiatives (via community and business grants programmes)</li> <li>Embody a route to a green economy and its delivery in Warwickshire's Strategic Economic Plan Value of investment secured by Warwickshire businesses as result of WCC's support activities</li> <li>Value of loans and grants funded by WCC</li> </ul>
Target business support for low carbon development, as well as minority and socially responsible businesses	<ul style="list-style-type: none"> <li>% of support provided to target groups</li> </ul>
Support economic growth of key sectors within WCC and help them transition to a low carbon economic model	<ul style="list-style-type: none"> <li>£ of funding secured to advance transition to low carbon economic models</li> <li>% growth of key business sectors</li> </ul>
Increase engagement (two-way) and partnership with community groups	<ul style="list-style-type: none"> <li>No. of engagements increased (forums, emails)</li> <li>No. of changes, decisions, ideas taken forward made through engagement (forums, emails etc)</li> <li>£ spent on supporting EcoSchools</li> </ul>
Encourage increase in sustainable food production and access to local markets	<ul style="list-style-type: none"> <li>No. of markets selling locally produced sustainable food</li> <li>No. of Council-owned farms producing sustainable food</li> </ul>
Integrate healthy diets into The Healthy Lifestyles Programmes	<ul style="list-style-type: none"> <li>No. of programmes delivered</li> <li>No. of people receiving programmes</li> </ul>
Increase direct access to Council support	<ul style="list-style-type: none"> <li>No. of people making contact with Council</li> </ul>

## Context

A sustainable community is one where people are supported to live healthy, happy, equitable and independent lives. A green economy supports sustainable economic growth with a central focus on reducing societal and environmental risks and embedding climate adaptation into its construct. This theme is based on the following principles:

- All people are supported to create and enjoy prosperity.* There is a focus on growing wealth for wellbeing (not just financial wealth but the full range of human, social, physical and natural capitals). People are supported to live healthy, active lifestyles with access to healthy, local, affordable food that is grown sustainably and with regenerative methods.
- Equity* is promoted. It has a community powered approach – conditions are created for communities to help themselves and lessen the gap between the most and least capable. Equitable distribution of opportunity and outcome is promoted.
- Nature is safeguarded, restored and invested in.* An economy which invests in protecting, growing and restoring biodiversity, soil, water, air, climate and other natural systems.
- Sustainable consumption and production are supported.* A sustainable community and inclusive green economy is low-carbon, resource-conserving, diverse and circular, aiming for local access to goods and services. Economic development enables economic growth without raising resource consumption.
- Communities are *connected physically, digitally and with a sense of community spirit.* No one is left in isolation, loneliness or in poverty.
- Accountable and resilient institutions* are the cornerstone. This means institutions that are collaborative and coherent. It requires a joined up collaborative approach to amplify and maximise impact. In doing so, communities will feel a sense of *democratic empowerment*.

We want to see the development of new green jobs and technology, whilst supporting the 'greening' of our key priority sectors – automotive, manufacturing and engineering; tourism; and digital creative. We recognise the important role played by our farming community and want to encourage local, sustainable enterprise that supports healthy lifestyles\* and diets.

This is a change from the status quo and will involve a shift in priorities.

\*Healthy lifestyles support economic growth through less premature death which increases the working age population. When people are healthy, absences in sickness decline and workers are less distracted by managing their conditions or those of loved ones.



## Where we are now

We have been delivering business and industry-based support across different programmes and finance schemes as part of the process for long-term business growth in Warwickshire, for example the Warwickshire Recovery Investment Fund (WRIF). Some of this support prioritises investment to energy efficiency and low carbon innovation.



Our partnerships are vital in helping create regional change and expanding the boundaries and capabilities of Warwickshire businesses. For example, we have worked with Coventry City Council through the Innovation Programme to help businesses become more innovative and efficient. Additional work with Coventry is delivered through the Coventry and Warwickshire Green Business Programme, which promotes and supports energy efficiency measures within businesses.

In addition to these partnership efforts, we have delivered a series of webinars to Warwickshire's small and medium enterprise businesses, to provide inspiration and practical support in their journey to net zero.

The Community Powered Warwickshire programme, initiated in 2021, is being used as a pathway for harnessing the power of our communities to tackle inequality and social inclusion. This is being funded through the Warwickshire Social Impact Fund. A notable strength of Warwickshire is the ability for community action to make a positive contribution, especially noting the role of our active voluntary community and social enterprise (VCSE) sector. Community Power has been identified as a place shaping approach to help deliver on the Council Plan priorities of Vibrant Economy and Places, Best Lives and **Sustainable Futures**. We are taking the learnings from this forward to longer term community led approaches.

We are increasing resilience, adaptability, and mitigating climate change whilst using community powered initiatives in Warwickshire such as the Green Shoots Community Climate Change Fund.

## What we have planned

We are and will continue to participate in the EcoSchools programme which empowers and motivates pupils to drive change and improve environmental awareness in their school, local community and beyond.

We have published our Countywide approach to Levelling Up in response to the Government's Levelling Up White Paper and will be enacting our approach to support the

most vulnerable communities and promote regeneration in the right places. Partnering with District and Borough, and Town and Parish Councils is key to this.

Under our current business support programmes, we plan to continue working with local businesses to promote and support a low-carbon County, and further back businesses to change their supply chains to more sustainable options.

As the Adminstrating Authority of the Warwickshire Pension Fund, we will be implementing our Investment Strategy for our over 50,000 members, having regard to environmental factors in the operation of the Fund as expressed in Responsible Investment and Climate Risk Strategies. The Fund will consider divestment where engagement does not or cannot work. We have also recently updated our Procurement Strategy which through the Social Value strategic pillar seeks to secure wider benefits for communities, the economy and the environment and support our vision to strengthen communities across the County. The Fund will engage with our 206 active employers to influence and promote responsible investment, carbon reduction and other activities to fight climate change and to mitigate exposure to climate risk and its resultant impact on asset liability.

## Where are the gaps

We have begun supporting a low carbon economy, but we recognise we need to do a lot more. We will:

- Define a strategy and roadmap for adopting the sustainable communities and green economy principles aligning with the circular economy principles.
- Change the conditions by which we invest in, and support businesses, so that green economy principles are prioritised, along with ensuring skills and training reflect the skills gap. We will engage with partners and educators to deliver specific skills and training opportunities to alleviate stress from technological unemployment.
- Convene stakeholders to scope transition pathways, and to generate shared commitment and effective partnerships. We need to engage more fully with community and interest groups e.g., Warwickshire Climate Change Alliance, Community Energy Warwickshire etc.
- Ensure that as a Council we are leading by example by changing our procurement processes and priorities to support a green economy including low carbon, social equity, and increased biodiversity.
- Lead by example through ensuring our own companies take action, including the Warwickshire Property and Development Group (WPDG), our catering company and others.

You can help by being engaged with us, by supporting businesses with a green ethos, by being innovative to reduce consumption.

# Natural Capital and Biodiversity

## Objectives

Objective	Potential Key Performance Indicator (KPI)
Support Districts and Boroughs to become leading local planning authorities in embedding natural capital into decision making	<ul style="list-style-type: none"> <li>No. of WCC landholdings with natural capital accounts</li> <li>County wide metrics for key ecosystem services</li> </ul>
Establish innovative environmental markets to achieve Environmental Net Gain and fund nature recovery and enhancements across the County by 2050	<ul style="list-style-type: none"> <li>No. of pilot Payment for Ecosystem Services (PES) schemes undertaken by 2030</li> <li>£ secured for the provision and enhancement of ecosystem services</li> <li>% increase in key ecosystem service provision by 2050</li> </ul>
Further develop plans and strategies in response to the enhanced 'Biodiversity Duty' on public bodies. Support people to understand the value of the natural environment	<ul style="list-style-type: none"> <li>Plans are updated by 2024.</li> <li>No. of engagements increased - engaging with people to understand value of natural environment (forums, emails)</li> <li>No. of changes, decisions, ideas taken forward made through engagement (forums, emails etc)</li> <li>No. of officers / managers identified as formal biodiversity champions within each department</li> </ul>
Provide strategies and plans for key sectors across the County to deliver measurable enhancement, increases, and protection of target habitats and species, as well as their connectivity, abundance, quality, and diversity, by 2050	<ul style="list-style-type: none"> <li>% increase in coverage and connectivity of habitats in Warwickshire</li> <li>Area of additional land purchased for habitat connectivity</li> </ul>
Manage, enhance and restore habitats across the County to increase land-based sequestration and contribute to net zero targets by 2030	<ul style="list-style-type: none"> <li>% increase in green space</li> <li>Number of trees planted</li> <li>Tonnes/ CO2e/yr. sequestered through habitats by 2030</li> <li>No. of carbon credits created through the Woodland Carbon Code per year until 2030</li> </ul>



## Context

Global threats to biodiversity and the climate emergency are two of the largest threats to humanity that require both local and global action. Biodiversity should be protected and enhanced as it provides the foundations for life on earth. Additionally, it supports the provision of ecosystem services and socio-ecological resilience for humans. This was evidenced by [The Dasgupta review on the 'Economics of Biodiversity' \(2021\)](#) which recognises that the solution to the biodiversity emergency starts with recognising that economies are embedded within the natural environment, rather than being external to it. The review calls for transformative change in the way we think, act and measure success.

More broadly, a natural capital approach is increasingly recognised as a way of viewing nature as an asset that should be protected given its critical importance to our own survival. The approach highlights the range of goods and services which make human life possible. Some of these goods and services are tangible – like water and food, while others are intangible – like clean air, a stable climate, and biodiversity. A natural capital approach focuses on these benefits and attempts to factor them into more balanced and sustainable decisions.

The approach underpins the UK Government's 25-Year Environment Plan and its underlying objectives. It also helps with monitoring the environment and ensuring the delivery of nature positive outcomes, including outcomes required by environmental markets such as voluntary carbon markets. The UK Government has made continued efforts to promote the use of a natural capital approach by developing national accounts and disseminating evidence that can be used in decision-making, among other initiatives.

## Where we are now

We have undertaken a number of initiatives related to natural capital and biodiversity including:

- In 2008 we published our Biodiversity Strategy "Working for Warwickshire's Wildlife" details of which can be found in Appendix D.
- Our 2013 Sub-regional Green Infrastructure (GI) Strategy set out evidence for the preparations of plans, policies and programmes to protect and enhance GI, while recognising the importance of GI in delivering multiple ecosystem services that contribute to our environmental, social and economic wellbeing.

- In 2014 we participated in Defra's Biodiversity Offsetting trial. Since then, we have set up the first Local Planning Authority-led mandatory Biodiversity Net Gain (BNG) market and rolled-out the Warwickshire BNG metric which has generated over £5 million of funding for the protection and enhancement of our natural assets.
- In 2016, an Ecosystem Service Mapping project was undertaken for Warwickshire, Coventry and Solihull.
- We set up the initiative to plant 'a tree for every resident in Warwickshire' alongside partners, amounting to around 566,000 trees by 2030.
- Published a Natural Environment Investment Readiness Fund (NEIRF) report which explores potential funding mechanisms to support our environmental ambitions.

## What we have planned

Appendix D sets out a full list of natural capital and biodiversity related aims that have been agreed across the County. A key focus is to develop our philosophy for using our Biodiversity Investment Fund and for furthering recommendations in the NEIRF. Two key components of this investment philosophy will be:

- New sites within Warwickshire should be chosen strategically to maximise habitat connectivity and benefit to wildlife, where long-term management can be secured.
- Using a small proportion of the fund to finance competitive prizes that incentivise emerging environmental pilots and markets that delivers multi-functional benefits.

Our current biodiversity strategy (2008) should be updated to reflect new environmental legislation and remain agile in the face of future legislation.

With clear timescales and targets for tree planting, we have committed to plant 566,000+ trees by 2030. We are focused on delivering at scale by directly planting at least 20,000 trees by 2023 reaching a total of 352,000 by 2030 with the remainder planted in partnership with the District and Borough Councils and landowners. It should be noted that the target to deliver 566,000 trees may be increased due to incoming policy updates within the new Local Plan. We are also exploring the development of a Warwickshire-based carbon offset market, to support tree planting and alignment with the Woodland Carbon Code.

The NEIRF strategy explored the potential for the development of further ecosystem services markets beyond biodiversity and carbon. It highlighted that an air quality market would be required, subject to significant research in appropriate mitigation measures and their estimated costs. The strategy also identified significant potential to develop a voluntary nutrient balancing market linked to agriculture. We are planning to explore the potential for mandatory or voluntary markets relating to these ecosystem services.

We will continue to monitor and manage our GI assets and expect that the national BNG metric and market will supersede our current approach. Furthermore, we will be working with Natural England to develop a Local Nature Recovery Strategy.

We are planning to establish a tree nursery, enabling and ensuring the supply of trees to meet Warwickshire's 2030 tree planting pledges and replacement stock. This will include the added benefit of the ability to grow specific varieties of flora that thrive in Warwickshire and are resistant to pests and disease, have a low carbon footprint from reduced transport and the potential for the development of arboriculturist apprentices.

## Where are the gaps

It is recognised that we still have a long journey ahead. We aim to be an example to other local authorities by delivering BNG, net zero, and environmental net gain, via the following objectives:

- Develop a natural capital investment strategy, including a roadmap to achieve the position of a leading authority in terms of how we manage our natural assets. It will outline our approach to investing in nature and biodiversity. Some real-world examples are provided in Appendix E.
- Work with the District and Borough Councils to encourage policies into Local Plans that embed the idea of environmental net gain through maintaining and enhancing the provision of ecosystem services.
- Explore further funding opportunities to support tree planting initiatives and the development of further County-wide Payment for Ecosystem Services markets.
- Scope and design a pilot scheme for the high priority potential environmental markets identified in the NEIRF report.
- Develop and regularly update a County wide baseline natural capital account to monitor and manage our natural assets.
- Develop a robust plan for use by local developers, consultants and planners to transition from our BNG metric to the national mandatory BNG metric.
- Develop an offsetting strategy for our tree planting targets to determine their spatial scope and ensure they contribute to our 2030 net zero targets.

You can help by taking an active role in the protection and enhancement of natural environments and habitats when visiting natural spaces.

## Engagement and partnership

Engagement and partnership are central to how this strategy and action plan will work and are integrated into our Delivery Principles. The actions that will have the biggest impact on enhancing biodiversity, reducing emissions in Warwickshire and providing equity across our communities are not always within the gift of the County Council to enact. Many of them will be the responsibility of the District and Borough Councils, Town and Parish Councils, Central Government, other public service providers or with businesses, landowners and homeowners. Providing a partnership, supporting and coordinating role between the District, Borough, Towns and Parish Councils, and a central forum for businesses and homeowners is going to be key for the County Council and we will commit whole-heartedly to this role. To this end, following on from the Warwickshire and Coventry Climate Conference in March 2022, we have set up a Warwickshire Public Sector Net Zero Group. This group is a space for all of Warwickshire's public sector organisations to share best practice, collaborate to realise efficiencies, and build a sense of common ownership and shared responsibility, helping to turn the challenge into practicable, deliverable activities. We will also engage closely with local climate and community groups, with our neighbouring Councils, NHS, the West Midlands Combined Authority and with Central Government.

## Funding the Strategy

Local authorities play an essential role in driving local climate action. WCC has significant influence over the key sectors including energy and transport, reform of which will be essential to achieving net zero.

Funding is a key aspect of our ability to deliver the Sustainable Futures Strategy and substantial financial investment will be required in the next decades for decarbonisation, with funding critical to enable actions. In addition to potentially borrowing from sources such as the UK Infrastructure Bank and Public Works Loan Board, we will be investigating and seeking to use a number of areas of funding available to us such as:

- Dedicated grant funding for work related to net zero, which we along with other local authorities can bid for. Key sources include Public Sector Decarbonisation Scheme, Active Travel Fund, Green Homes Grant Local Authority Delivery Scheme and All Electric Bus Town or City Scheme. Wider funding is also available that is targeted at other or more general outcomes, such as social or economic growth, but which

require, encourage or allow the delivery of net zero objectives. Examples include the Towns Fund, Levelling Up Fund and the UK Shared Prosperity Fund which include criteria or statements designed to encourage local authorities to invest in projects that support the achievement of net zero.

- Additional funding opportunities linked to a potential devolution deal, allowing investment to be channelled towards our net zero and green economy ambitions.
- Funding leveraged from the commercial sector, for instance through developer contributions such as the Community Infrastructure Levy (CIL) or embedding net zero and green/circular economy requirements into public procurement. Furthermore, certain net zero investment opportunities have the potential to generate revenue for the Council which can be reinvested.
- Voluntary, Community and Social Enterprise organisations can derive funding for local projects from sources that would otherwise be unavailable to the private sector and businesses. This includes lottery and trust funding.
- Innovative funding solutions, such as Community Municipal Bonds (CMBs), which offer local people an opportunity to invest in net zero projects in a way similar to crowdfunding and to make a return from doing so. CMBs offer the potential of providing low-cost capital for Councils to deliver socially and environmentally positive outcomes. We will work with District and Borough Councils to understand the most effective way CMBs would work.
- For biodiversity, a natural capital investment approach coupled with grant funding will be required. The biodiversity net gain planning contributions capital already accrued through planning may be used. If public and private investment is directed towards habitat enhancements in strategic locations, they can also achieve other multifunctional nature-based solution benefits that are marketable, through programmes such as the Woodland Carbon Code.

Moreover, in utilising these sources of funding, we have the opportunity to progress shared investments with partners and combined schemes which have the potential to reduce overall funding requirements through economies of scale, affording us greater efficiency and buying power.

However, despite this range of funding sources, we recognise that there are a number of challenges. A combination of a funding squeeze following the 2008 financial crisis, the Covid-19 pandemic, inflationary pressures and a growth in demand for services has resulted in many local authorities' finances, including ours, being placed under pressure, which will limit our ability to invest in sustainable interventions.

The private sector will therefore have a key role to play with this transition, not only through the need to decarbonise the buildings they occupy and their production processes, develop low-carbon supply chains or innovate in low-carbon, circular goods and services, but through providing the funding for green and circular infrastructure at a local level, with investors being a source of long-term capital that can complement public funds. It will be imperative to support capacity building in the supply chain to ensure investments to support our net zero ambitions can be delivered.

Partnership working between us, other local authorities, central government, and private businesses will be imperative to delivering this strategy, realising the net zero vision, contributing to Levelling Up across England and enhancing prosperity.

## Governance and Communication

### Governance

WCC will establish relevant governance structures to reflect this strategy once it has been endorsed. This will include providing clear and transparent reporting mechanisms, and ensuring reporting is incorporated into our Integrated Delivery Plan with named Assistant Directors responsible for the actions. We expect to review this strategy every 3 years.

We recognise we may need to make some changes within our Directorates and services to align roles and responsibilities with the priorities of this strategy, and to set ourselves up for delivery of the actions.

### Engagement and Communication

We will be holding engagement, panels and a survey to make sure our residents, communities and businesses have an opportunity to provide feedback on this draft strategy before updating it to a final version for implementation.

We aim to engage with stakeholders meaningfully and in a timely manner using appropriate methods for all possible audiences and commit to involving interest groups and a diverse, representative selection of the community in our activities under each theme.

We recognise that as a Council we have a role to motivate and influence behaviour change across the County and we will strengthen our role to do this.

## Appendix A - Action Plan (Draft)

Whilst we are going to deliver actions to meet our wider sustainability ambitions, we have identified and categorised actions that will help us meet our 2030 target of being a Net Zero Council. In 'Our Carbon Emissions' section we noted that we needed to reduce our Council emissions 29% by 2026 and 46% by 2030. These are predominantly split between our transport emissions and our Council buildings. We need to reduce Council transport emissions by approx. 28.5% and our Council building emissions by approx. 17.5% by 2030.

The strategy identifies a series of strategic enablers that need to be delivered at pace and scale, and in some cases to enable progress with operational actions. Critically these include resourcing and upskilling requirements and the significant capital and revenue implications of maximising decarbonisation for the Council. There will be additional costs in the short- to medium-term, with the potential for the generation of some financial benefits over the longer-term. The Council will not have the financial capacity to undertake the investment needed from its own resources. Funding for actions will need to be identified primarily from external sources including from central government, with the Council's own resources being focused on providing seed / feasibility funding for those projects and actions that deliver the greatest benefits. As such, the delivery of the strategy is therefore predicated on a prudent approach to investment decisions based on providing detailed costing and financing plans as the Council progresses on each delivery theme.

Theme	Activity Area	Objective	Action	Timeframe	Categorisation comment	Enabling Actions
<b>Transport</b>	Council Business Travel	Reduce Council emissions from business travel	Care worker travel - investigate options for better journey/visit planning to stop multiple cross County journeys every day and make visits more efficient. This will reduce emissions. Options could include a digital solution to plan journeys/visits. Also consider including contract conditions on external providers to have a plan to reduce inefficient journey planning	Short-Term	This will support the carbon reduction by 2030, as the increase of efficient care work travel will lead to a direct decrease of emissions associated with business travel	Funding Behaviours Engagement
<b>Transport</b>	Council Business Travel	Reduce Council emissions from business travel	Care worker travel - investigate ULEV and ZEV leasing schemes for care workers, and for contracting staff. Supporting both staff and contractors to change their vehicles will reduce emissions quickly and drastically.	Short-Term	This will support the carbon reduction by 2030, as the increase of low carbon vehicles will lead to a direct decrease of emissions associated with business travel	Behaviours Engagement
<b>Transport</b>	Council fleet	Reduce carbon emissions from Council fleet	Replace end of life Council fleet with ULEV and ZEV and low carbon fuels	Long-Term	This will support the carbon reduction by 2030, as the increase of low carbon vehicles will lead to a direct decrease of emissions associated with business travel	Funding Resources



Theme	Activity Area	Objective	Action	Timeframe	Categorisation comment	Enabling Actions
<b>Energy</b>	Council owned buildings	Develop revised Energy Policy and Strategy	Agree a new Energy Policy and Strategy with the objective of accelerating the implementation of energy efficiency measures and renewable energy generation expansion	Short-Term	A new Energy Policy and Strategy in place will provide policies, direction and procedures for how low carbon energy is to be generated and used within council buildings. This will indirectly contribute to decarbonisation of the Council's estate by 2030	Resources
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Complete area mapping to identify opportunities for renewable technologies to be installed in Council owned buildings and land	Short-Term	Mapping activity must occur as it enables follow-on feasibility studies and ultimately directly contributes to carbon reduction by 2030	Funding Resources
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Complete feasibility studies based on the results of the area mapping and generate a list of priority opportunities for renewable technologies	Medium-Term	Feasibilities studies must occur to support the development of options for the installation of renewable technologies	Funding Resources
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Identify and seek to mitigate planning and grid connection requirements that may present a barrier to implementation of renewable technologies	Short-Term	Through the mitigation of potential barriers, this action will encourage the implementation of renewable technologies, in this way directly supporting the 2030 reduction target	Funding Resources
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Identify funding and financing options including crowdfunding and community energy funds and create a prioritised list of options including timescales for seeking funding for renewable technologies. Develop renewable technologies implementation plan.	Medium-Term	The plan directly supports the implementation of renewable technologies which directly support the reduction of carbon for the 2030 target	Resources
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Feasibility study to identify solar PV potential	Short-Term	Identification of the most feasible ways to expand solar PV installations, will support effective implementation of further renewable energy generation, and directly supports the 2030 target	Funding Resources
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Feasibility study to identify solar PV potential of WCC carparks	Short-Term	Identification of the most feasible ways to expand solar PV installations in car parks, will support effective implementation of further renewable energy	Funding Resources

Theme	Activity Area	Objective	Action	Timeframe	Categorisation comment	Enabling Actions
					generation, directly supporting the 2030 target	
<b>Energy</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Work with internal stakeholders and construction partners to identify opportunities to incorporate low carbon electricity and heating systems in new buildings	Short-Term to Long-Term	New buildings incorporating opportunities for low carbon energy generation will directly contribute towards the 2030 target	Resources
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Define approach and scope for further energy efficiency audits and detailed decarbonisation plans of Council owned/ occupied estate	Short-Term	A precursor for completing energy efficiency audits and implementation of actions which in turn support the 2030 carbon reduction target	Resources
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Complete energy efficiency audits and develop decarbonisation plans of the highest consuming Council owned / occupied estate and incorporate findings into decision making for Estates Master Plan (EMP)	Short-Term	A precursor for completing energy efficiency measures which directly supports the 2030 carbon reduction target	Resources Funding
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Review findings of energy efficiency audits and implement decarbonisation plans (we would expect these to include fabric first energy efficiency approaches, lighting efficiency measures, low carbon heating, etc)	Short-Term	Actioning detailed plan to implement the previously identified efficiency measures, will reduce energy use and consequently carbon emissions associated with building use, thus directly supporting the 2030 reduction target	Resources Funding  Significant costs for implementation
<b>Built Environment</b>	Council owned buildings	Seek to reduce carbon emissions from the Council's existing buildings	Explore the impact of more flexible working and the opportunity to fully occupy available space (aligned with the existing building utilisation KPI)	Short-Term	Optimisation of energy consumption will lead to a direct reduction in carbon emissions associated with building used, therefore this action directly contributes towards the 2030 carbon reduction target	Resources
<b>Built Environment</b>	Council owned buildings	Seek to reduce carbon emissions from the Council's existing buildings	Identify opportunities to link upgrade works with other public sector retrofits including engaging with tenants to identify and bring forward targeted energy efficiency retrofits (e.g., through incentives, sharing energy savings)	Short-Term	Identification of the most feasible retrofit opportunities, will support effective implementation of these efficiency measures, leading to a reduction on emissions from building use	Engagement Resources



Theme	Activity Area	Objective	Action	Timeframe	Categorisation comment	Enabling Actions
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Review scope of building management systems, and make updates if required	Short-Term	Optimisation of energy use in Council owned buildings will lead to a direct reduction of associated carbon emissions, and therefore directly supports the 2030 carbon reduction target	Funding Resources
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Develop programme to reduce water wastage	Medium-Term	Through a combined behavioural and maintenance programme we can reduce wastage resulting in carbon and cost savings	Resources Behaviours
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Review and refresh Mechanical & Electrical framework for maintenance contractors and maximise alignment with maintenance strategy and retrofit opportunities	Short-Term	Precursor to the following action	Resources Market conditions
<b>Built Environment</b>	Council owned buildings	Reduce carbon emissions from the Council's existing buildings	Work with suppliers in compliance with the framework, ensuring the new requirements are met	Short-Term	Ensuring that all contractors follow the new low carbon requirements, will lead to a direct decrease in the Council's Scope 3 emissions associated with purchased goods and services, which will indirectly support the 2050 reduction (not the 2030 because purchased goods and services is not part of the Council's baseline)	Conditional on achieving changes to maintenance framework action
<b>Waste and Circular Economy</b>	Waste Authority	Reduce waste from Council-owned buildings	Introduce food recycling in partnership with the Council's waste contractor throughout all Council owned buildings	Short-Term	The outcome of this action will increase the proportion of Council's waste that will get recycled, and therefore directly contributes towards the 2030 target	Resources Behaviours
<b>Waste and Circular Economy</b>	Waste Authority	Reduce waste from Council-owned buildings	Develop waste strategy for worst-performing buildings including education campaign for staff	Medium-Term	Acting on the developed action plan for worst performing buildings will lead to a reduction of waste generated by the Council, directly contributing towards the 2030 target	Resources Behaviours
<b>Waste and Circular Economy</b>	Waste Authority	Reduce carbon emissions from managing municipal waste	Transition Council-owned waste vehicles from fossil fuel to alternative fuels (e.g., electric) in line with rest of council fleet	Medium-Term	This action will directly lead to a reduction of emissions associated with waste haulage done by the Council, thus directly contributing towards the 2030 target	Resources Funding
<b>Natural Capital and Biodiversity</b>	Environmental Net Gain	Encourage establishment of innovative	Seek to establish a local Warwickshire carbon offsetting market between the six	Medium-Term	Establishing a local carbon offsetting market will encourage the uptake of offsetting, which will	Resources Funding Policy

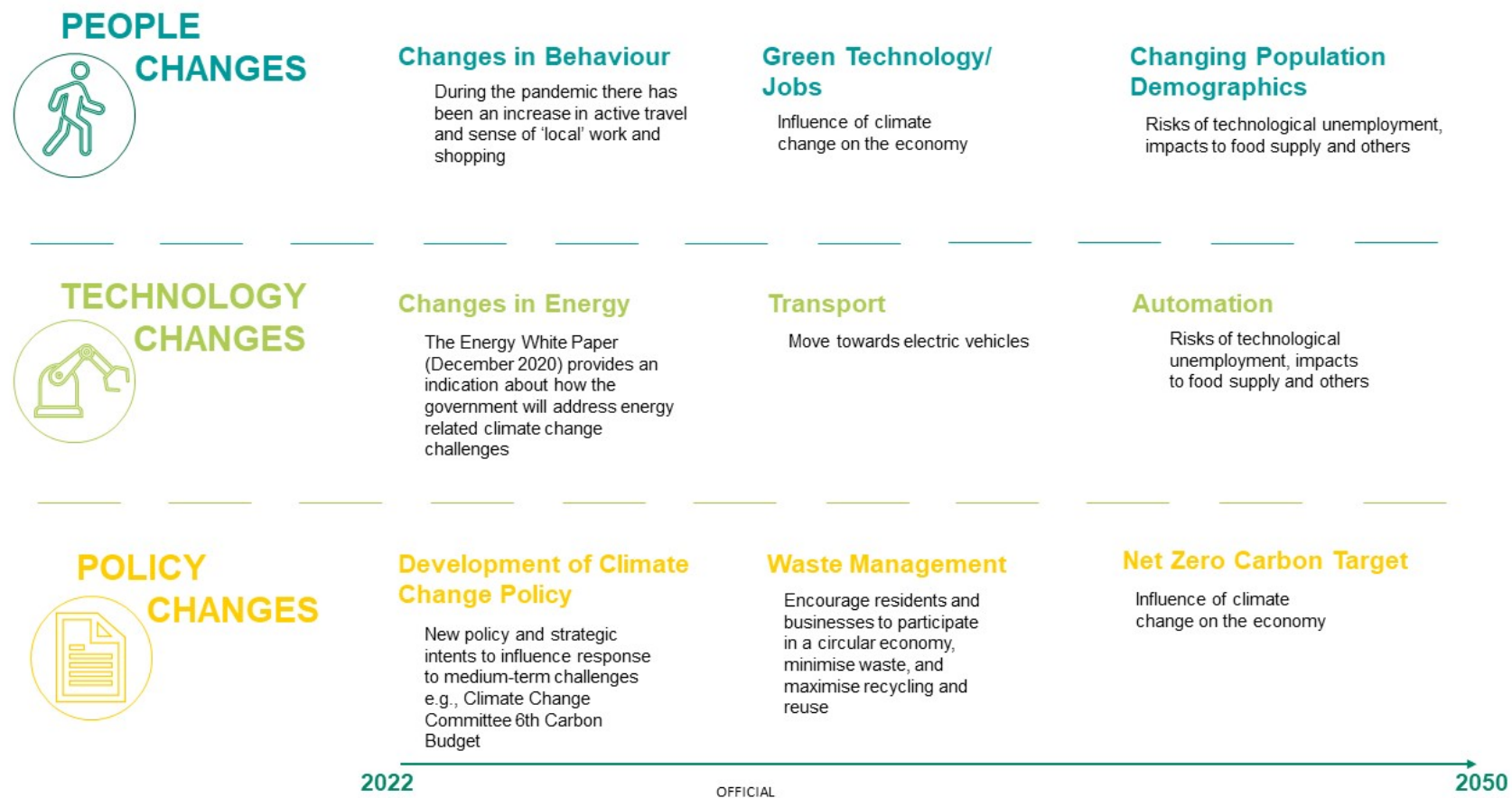
Theme	Activity Area	Objective	Action	Timeframe	Categorisation comment	Enabling Actions
		environmental markets to achieve Environmental Net Gain and fund nature recovery and enhancements across the County by 2050.	Warwickshire Councils and developers where offsets are purchased directly from Woodland Carbon Code projects established in the County, this should be linked directly with all actions set out in the 'Sequestration and storage' activity area.		support the 2050 carbon net zero target	
<b>Natural Capital and Biodiversity</b>	Environmental Net Gain	Manage, enhance and restore habitats across the County to increase land-based sequestration and contribute to net zero targets by 2030	Establish a carbon offsetting strategy which identifies a shortlist of sites to develop initial schemes on.	Short-Term	Establishing a carbon offsetting strategy will encourage the uptake of carbon sequestration, in this way contributing towards the 2050 target	Resources Policy
<b>Natural Capital and Biodiversity</b>	Sequestration and storage	Manage, enhance and restore habitats across the County to increase land-based sequestration and contribute to net zero targets by 2030	Establish guidelines such as planting and management protocols that means any woodland establishment in the County is applicable for WCC credits	Short-Term	Action will lead to increased carbon sequestrations, contributing towards the 2050 target	Resources Policy
<b>Natural Capital and Biodiversity</b>	Sequestration and storage	Manage, enhance and restore habitats across the County to increase land-based sequestration and contribute to net zero targets by 2030	Identify emerging carbon markets for habitats besides woodland (e.g. for hedgerows, saltmarsh and soils) and where these habitats are located within the County. This will prepare the County for when these markets become active.	Short-Term	Action will lead to increased carbon sequestrations, contributing towards the 2050 target	Resources
<b>Natural Capital and Biodiversity</b>	Sequestration and storage	Manage, enhance and restore habitats across the County to increase land-based sequestration and contribute to net zero targets by 2030	Ensure the County's natural capital accounts are recording the annual sequestration rates of all habitats in the WCC portfolio	Long-Term	Action will lead to increased carbon sequestrations, contributing towards the 2050 target	Resources

## Appendix B Terminology

<b>Absolute reduction</b>	Generally, 90% reduction from the baseline across Scope 1,2 and 3
<b>Biodiversity Net Gain</b>	A concept for development and/or land management that aims to increase biodiversity, using quantitative and qualitative approaches
<b>Carbon Neutral</b>	Balance between carbon emitted and carbon removed from the atmosphere through investment in carbon offsets
<b>Carbon Offset</b>	A reduction in GHG emissions – or an increase in carbon storage (e.g., through land restoration or the planting of trees) – that is used to compensate for emissions that occur elsewhere.
<b>Circular Economy</b>	A model of production and consumption which minimises waste through sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products for as long as possible. This aims to reach maximum efficiency in the use of finite resources as part of creating a sustainable, productive economy.
<b>Green Economy</b>	Broader than a low carbon economy; it aligns to the wider context of the UN SDGs. An approach to sustainable economic growth with a central focus on reducing societal and environmental risks and ecological scarcities. It embeds climate adaptation into its construct. It transitions from the current ‘growth-based’ approach to investments, employment, and skills towards growth without degrading the environment, and the wellbeing and prosperity of citizens.
<b>ISO14001 Environmental Management System</b>	Sets out the criteria for an environmental management system that can be certified to. This helps us as an organisation to make sure we are setting up and following an effective system for managing environmental factors.
<b>Natural Capital</b>	Stocks of the elements of nature, such as forests, fisheries, rivers, biodiversity, land and minerals. Stocks of natural capital provide flows of ecosystem services over time which produce a wide range of benefits
<b>Natural Capital approach</b>	Framing nature as an asset, or set of assets, that society benefits from and attempts to assess, in qualitative, quantitative and monetary terms, the ability of natural assets to provide ecosystem services, in order to make them more visible in decision making. It enables a much clearer picture of what we stand to gain or lose when we make decisions about how to manage or consume natural resources
<b>Net Zero</b>	Balance of carbon emissions and removals, focusing on ‘absolute reductions’ in operational boundaries prior to investments in external carbon removals
<b>Sustainable</b>	Meeting the needs of current generations without compromising the needs of future generations.
<b>Prosperity</b>	Growing wealth for wellbeing (not just financial wealth but the full range of human, social, physical and natural capitals).
<b>Zero Carbon</b>	No emissions are produced from a product or service.

# Appendix C Key Trends

We have assessed the key trends within sustainability and climate change (including changes in demographics, technology, behaviours, and factors such as the high impact shock of the Covid-19 pandemic) across the short, medium and long term and how they may impact the Council and the wider County. The assessment has provided input into our themes and actions as impacts to the Council and impacts to the County.



## Appendix D UK Policy and Legislation

The UK Climate Change Committee has recommended 4 opportunities for meeting the UK 2050 net zero target. These, and the relevant Sustainable Futures themes, are:

1. Uptake of low-carbon solutions – choosing low carbon options/ technologies and carbon capture
  - a. *Sustainable Communities and Green Economy*
  - b. *Built Environment*
  - c. *Council Procurement*
2. Expansion of low-carbon energy supplies – renewable electricity and heating sources, and alternative fuel sources such as hydrogen are used
  - a. *Energy Generation*
3. Reducing demand for carbon-intensive activities – improved energy efficiency, changing diets and lifestyles that reduce waste, resources and consumption of high-carbon goods
  - a. *Transport*
  - b. *Resource, Waste and Circular Economy*
  - c. *Sustainable Communities and Green Economy*
4. Land and greenhouse gas removals – change in land use for regenerative agriculture and at least 15% of land is woodland
  - a. *Natural Capital and Biodiversity*

The *Natural Capital and Biodiversity* theme is also aligned to the Environment Act, the 25 Year Environment Plan, the Nature Recovery Green paper and UK's Nature Positive 2030 report. Both the Environment Act and 25 Year Environment Plan are core pieces of legislation which set requirements and actions aligning with most themes under this strategy, including ambitions for resource and waste.

Our relationship with national policy works reciprocally. We will use our influence as a Council organisation, and collectively with partners to lobby central government to develop ambitious, supportive policy and legislation which enables action at a local level. We are also part of the Countryside Climate Network, partnered with 28 other predominantly rural, ambitious Councils who represent over 45% of England's land area, making the case that rural communities can lead climate action.

The table following summarises the strategy alignment with key policy and legislation.

UK Policy	Key Elements	Sustainable Futures Theme Alignment
<a href="#">Climate Change Act, Carbon Budgets and United Kingdom's Nationally Determined Contributions</a>	<ul style="list-style-type: none"> <li>100% net emission reduction from 1990 levels by 2050</li> <li>Uptake of low carbon solutions</li> <li>Expand low carbon energy supplies</li> <li>Reduce demand for carbon-intensive activities</li> <li>Land and greenhouse gas removal</li> </ul>	<ul style="list-style-type: none"> <li>All themes</li> </ul>
<a href="#">The Environment Act</a>	<ul style="list-style-type: none"> <li>Recognises the negative impact that climate change is having on biodiversity</li> <li>Enshrines in law the requirement to leave land in a better state for biodiversity, and for local authorities to have a strengthened 'biodiversity duty'</li> <li>Opportunities for mitigating the impacts of climate change using natural capital</li> <li>Contains legal provision to overhaul how waste is managed in the UK, with a focus on treating waste as a resource; increasing levels of recycling; and making producers responsible for meeting the costs of collecting and processing of packaging waste</li> <li>Secondary legislation is expected for a number of biodiversity related themes</li> </ul>	<ul style="list-style-type: none"> <li>Transport</li> <li>Resources, Waste, and Circular Economy</li> <li>Natural Capital and Biodiversity</li> </ul>
<a href="#">25 Year Environment Plan</a>	<ul style="list-style-type: none"> <li>Managing land sustainability</li> <li>Nature recovery and landscape enhancement</li> <li>Health and wellbeing</li> <li>Resource efficiency, and reducing pollution and waste</li> <li>Natural capital approach to deliver Environmental Net Gain</li> </ul>	<ul style="list-style-type: none"> <li>Resources, Waste, and Circular Economy</li> <li>Natural Capital and Biodiversity</li> <li>Sustainable Communities and Green Economy</li> </ul>
<a href="#">Nature Recovery Green Paper: Protected Sites and</a>	<ul style="list-style-type: none"> <li>Driving nature recovery in England via protected sites and species protections</li> </ul>	<ul style="list-style-type: none"> <li>Natural Capital and Biodiversity</li> </ul>

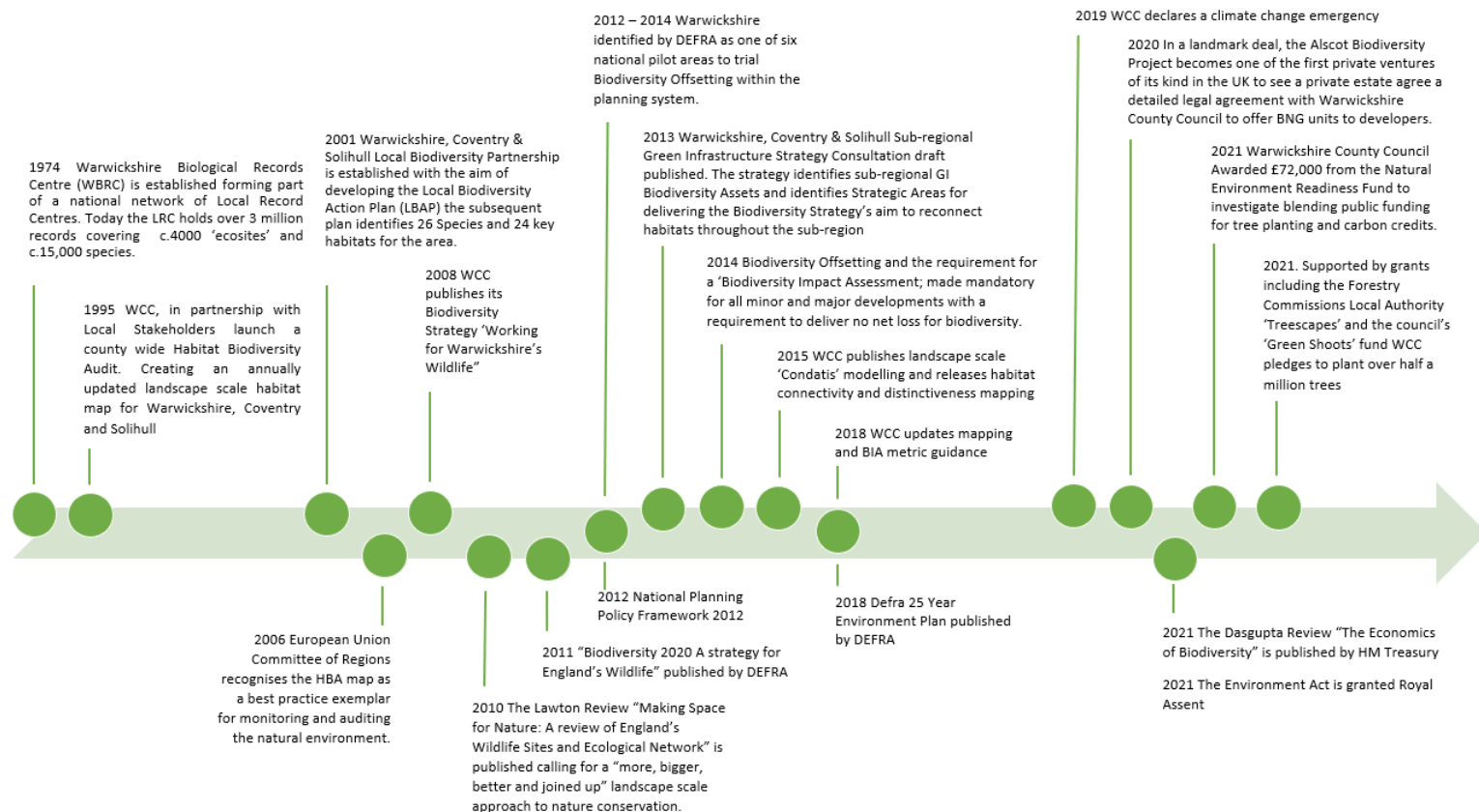
UK Policy	Key Elements	Sustainable Futures Theme Alignment
<a href="#">Species - Defra - Citizen Space</a>		
<a href="#">Nature Positive 2030 Summary (jncc.gov.uk)</a>	<ul style="list-style-type: none"> <li>Tackling the twin crises of biodiversity loss and climate change together</li> <li>Becoming Nature Positive by 2030 by reversing the current decline of biodiversity</li> <li>Mainstream Nature Recovery, Protect and Restore Nature through ambitious targets, Transition to Sustainable Land and Sea Use</li> </ul>	<ul style="list-style-type: none"> <li>Natural Capital and Biodiversity</li> </ul>
<a href="#">Levelling up the United Kingdom</a>	<ul style="list-style-type: none"> <li>Increase opportunities across the UK and reduce disparities between different socio-economic groups and geographies</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable Communities and Green Economy</li> </ul>
<a href="#">10 Point Plan for a Green Industrial Revolution</a>	<ul style="list-style-type: none"> <li>Focused on delivering an economic transition which is supported by innovation, green investment, green jobs and skills and local climate action.</li> </ul>	<ul style="list-style-type: none"> <li>Transport and Pollution</li> <li>Energy</li> <li>Built Environment</li> <li>Sustainable Communities and Green Economy</li> <li>Natural Capital and Biodiversity</li> </ul>
<a href="#">Clean Growth Strategy</a>	<ul style="list-style-type: none"> <li>Green finance</li> <li>Improving business and industry efficiency</li> <li>Improving homes: energy and heat</li> <li>Low carbon transport</li> <li>Enhance benefits of natural resources</li> <li>Government leadership</li> </ul>	<ul style="list-style-type: none"> <li>All themes</li> </ul>
<a href="#">Net Zero Strategy: Build back better</a>	<p>Emissions reductions and an economic transition through targeted actions in key areas of the national economy, including:</p> <ul style="list-style-type: none"> <li>Power</li> <li>Fuel supply and hydrogen</li> <li>Industry</li> </ul>	<ul style="list-style-type: none"> <li>All themes</li> </ul>

UK Policy	Key Elements	Sustainable Futures Theme Alignment
	<ul style="list-style-type: none"> <li>Heat and buildings</li> <li>Transport</li> <li>Natural resources, waste and f-gases</li> <li>Greenhouse gas removal</li> </ul>	
<a href="#">Decarbonising transport: A better greener Britain</a>	<ul style="list-style-type: none"> <li>Increasing active travel</li> <li>Decarbonising railways</li> <li>Zero emission vehicles</li> <li>Maritime and aviation decarbonisation</li> </ul>	<ul style="list-style-type: none"> <li>Transport and Pollution</li> </ul>
<a href="#">Our waste, our resources: as strategy for England</a>	<ul style="list-style-type: none"> <li>Sustainable production</li> <li>Behavioural change</li> <li>Circular economy and waste management</li> </ul>	<ul style="list-style-type: none"> <li>Resources, Waste, and Circular Economy</li> </ul>
<a href="#">Industrial Strategy: Building a Britain fit for the future</a>	<ul style="list-style-type: none"> <li>Innovation across all areas</li> <li>Creating jobs and earning power</li> <li>Upgrade of UK infrastructure – making use of digital opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable Communities and Green Economy</li> <li>Council Procurement</li> </ul>
<a href="#">British Energy Security Strategy</a>	<ul style="list-style-type: none"> <li>Explores future pathways, including network and storage of different energy sources, to create energy security in the UK</li> </ul>	<ul style="list-style-type: none"> <li>Energy</li> </ul>
<a href="#">National Planning Policy Framework</a>	<ul style="list-style-type: none"> <li>Focuses on delivering the buildings and transport infrastructure for well-designed places and sustainable development</li> <li>Sets out the requirements for enhancing biodiversity and blue-green infrastructure through development</li> </ul>	<ul style="list-style-type: none"> <li>Built Environment</li> </ul>
<a href="#">Heat and Buildings Strategy</a>	<ul style="list-style-type: none"> <li>Changes in sources of heat and higher minimum performance standards.</li> </ul>	<ul style="list-style-type: none"> <li>Built Environment</li> <li>Council Procurement</li> </ul>

# Appendix E Warwickshire Biodiversity and Natural Capital Aims and Timeline

Over the next 28 years to 2050, Warwickshire aims to:

- Increase biodiversity connectivity
- Increase habitat quality, diversity and amount
- Increase species abundance of identified 'at-risk-species' within our area
- Reduce and eradicate invasive species
- Reduce habitat loss and degradation
- Plan for climate change and disease impacts to species
- Enhance wildlife education, whilst balancing the need to tackle human and nature conflicts – such as disseminating information and plans to limit 'disturbance'.
- Ensure that wider decision making in all disciplines takes account of local and global biodiversity – inclusive of biodiversity ethics and supply chain impacts
- Reduce excess nutrients on land and in water – keeping to nutrient neutrality and water quality targets Plant approximately 556,000 trees with partners by 2030 to contribute to net-zero ambitions
- Establish a local Warwickshire carbon offset market between Councils and developers
- Develop voluntary payment for ecosystem service markets within Warwickshire to address air quality, nutrient neutrality, flood alleviation and social prescribing





# Appendix F Illustrative Examples of Natural Capital Approaches

## Local Authority's Approach to Natural Capital

The following case studies provide insight into how local authorities across the country have developed a natural capital approach and embedded natural capital and ecosystem services into their decision-making. The following examples provide useful insights into the types of activities that Warwickshire may need to develop to become a leading local authority that utilises a natural capital approach to drive nature recovery and enhancement.

The **South Downs National Park Authority** recognised the importance of natural assets in delivering ecosystem services by developing a policy that requires planning applicants to undertake an ecosystem service assessment as part of planning applications. The aim is to influence development proposals to deliver nature positive outcomes. This example outlines how a local authority can embed natural capital thinking within policies, plans and programmes. This could be a first step to engage with relevant stakeholders about the concept of natural capital and their influence in delivering environmental benefits

The **Greater London Authority** developed a natural capital account which outlines the economic value of London's green spaces through the ecosystem services they provide. The aim of these accounts is to provide local borough Councils the tools to give greater consideration and protection for green spaces. The natural capital account report motivates policy and decision makers to explore more sustainable models for funding or financing, and in the Greater London Authority, a Green Space Commission will be created to facilitate this process.

The **Oxford to Cambridge (OxCam) Arc**, developed a natural capital plan, as well as a scalable and replicable framework that local authorities can use to develop their own natural capital plan as set out in Figure 1. A key takeaway from OxCam's approach was the importance of working collaboratively with partners who will ultimately feed into, use and promote the natural capital plan. The plan was created to support the delivery of environmental protection and enhancement as part of the planned growth and investment within the OxCam Arc area. A secondary aim of OxCam is to provide a scalable and replicable framework for local natural capital plans elsewhere.

It is worth noting the **Greater Manchester Combined Authority** was the first city-region in the UK to develop a natural capital investment plan and has produced an online natural capital tool for use by partners, land managers and community groups.

Further, while not solely focused on local authority case studies, Defra's Enabling a Natural Capital Approach' includes case studies that may be useful examples of good practice when taking a natural capital approach<sup>1</sup>. These range from Birmingham City Council's valuation of greenspaces and parks, PES scheme example of reverse auction for nitrogen reduction and Defra's example of 16 pilot PES schemes across a variety of habitats and environmental issues.



Figure 1: The six-step approach to developing a Local Natural Capital Plan<sup>1</sup>

<sup>1</sup> OxCam (2020) Local Natural Capital Plan: Project Overview [online] available at:

[https://static1.squarespace.com/static/5e85a98d5277001874963880/t/5ebab58ebcff0c117bae7f18/1589294487568/LNCPintrooverview050520\\_PDF.pdf](https://static1.squarespace.com/static/5e85a98d5277001874963880/t/5ebab58ebcff0c117bae7f18/1589294487568/LNCPintrooverview050520_PDF.pdf)



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